COMMITMENT IN NETWORKS OF PRACTICE

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Abstract

This study examined commitment in two geographically distributed networks of practice formed of internal communication specialists in Nokia. The research had three main objectives. First, to examine commitment and motivation in distributed work in general. Second, to find practical implications in order to enhance the functioning of the networks through examining the role of the network in each network member's work. Third, to develop a means to measure the above mentioned issues.

In this thesis, commitment was studied from the perspective of the workplace. Commitment was an especially interesting topic in the context of these networks as participation to them was voluntary. Identification and commitment of people with their organization can be a driving force behind a company's performance. In a turbulent organizational environment it is important to ask whether employees still identify with organizations, what forms such identification may take, and what factors shape it.

The results supported the notion that what made these networks of practice successful over time was their ability to generate enough excitement, relevance, and value to attract and engage members. Many factors, such as management support inspired the network, but nothing substituted for the network members' willingness to contribute to the network and the aliveness the network members themselves created. Another significant issue for both of the networks was the network coordinator, who's take on managing the network seemed to play an important role in the networks' activity. An individual's motivation to participate in a network of practice together with the organization's willingness to support the network both stemmed from the expectation that it delivered a particular value add for both.

Keywords
Commitment, communities of practice, networks of practice, distributed work

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Tiivistelmä

Tässä tutkimuksessa tarkasteltiin kahden Nokian sisäisen viestinnän ammattilaisista koostuvan maantieteellisesti hajautetun verkoston toimintaa ja sitoutumisen ilmenemistä niissä. Tutkimuksella oli kolme päätavoitetta: ensiksi tutkia sitoutumiseen ja motivaatioon vaikuttavia tekijöitä hajautetussa työssä, toiseksi tarkastella verkoston roolia sen jäsenten työssä käytännön päätelmien tekemiseksi ja kolmanneksi kehittää mittari, jonka avulla yllämainittuja asioita olisi mahdollista mitata.

Sitoutumista tarkasteltiin työyhteisön näkökulmasta käsin. Sitoutuminen oli mielenkiintoinen tutkimusaihe erityisesti, koska verkoston jäsenten osallistuminen niiden toimintaan oli vapaaehtoista. Organisaatioon identifioituminen ja sitoutuminen voivat toimia yrityksen kantavana voimana. Nopeiden toimintaympäristön muutosten keskellä on tärkeää kysyä, sitoutuvatko työntekijät yhä organisaatioihin, minkälaisia muotoja sitoutumisella on ja minkälaiset seikat vaikuttavat siihen.

Tutkimuksen tulokset tukivat käsitystä, jonka mukaan verkostojen menestyksen tae oli kyky tuottaa tarpeeksi innostusta, merkityksiä ja lisäarvoa verkoston jäsenten houkuttelemiseksi ja sitomiseksi. Monet tekijät, kuten johdon tuki inspiroi verkostoa, mutta verkoston jäsenten halukkuus toimia verkostossa ja siten ylläpitää sen toimintaa nousi korvaamattomaksi asiaksi. Merkittäväksi seikaksi kummankin verkoston toiminnassa osoittautui myös verkoston koordinaattorin ohjaus ja johtamiskäytännöt, jotka näyttivät vaikuttavan verkoston aktiivisuuteen. Syyt yksilön haluun osallistua verkoston toimintaan ja organisaation haluun tukea sitä olivat samoja: kumpikin osapuoli odotti saavansa verkostosta lisäarvoa.

Asiasanat
Sitoutuminen, käytäntöyhteisöt, verkostot, hajautettu työ

Muita tietoja

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1. INTRODUCTION

The world around organizations is rapidly changing bringing pressure to find new ways of organizing work practices. Using geographically distributed groups or teams has been embraced by globally working organizations to keep up with the pace of the competition in the global market place (Kimball 1997). Although the technology that supports these groups gets a large portion of the attention, it is really the changes in the nature of groups, not in their use of technology that creates new challenges for groups and managers.

When discussing work in groups and, especially, that in the geographically distributed ones, commitment is one of the key factors in making the group successful. In organizational theory, there seems to be a renewed attention to organizational commitment as it plays an important role in the modern organization (Depickere 1999, 110). According to Lincoln and Kallenberg (1990, 23) when an organization finds the means to elicit the commitment of its members, it has a very powerful mechanism of control at its disposal.

This thesis starts from discussing recent changes in societies and in the world and what kind of impact these changes have on contemporary organizations and work in them. Inevitably, as the world changes, organizations need to change. In consequence, work has to be organized in new ways. All these changes are reflected on employees and organizational and work commitment. To take these assumptions to a more concrete level, this thesis discusses how the rise, formation and use of geographically distributed networks of professionals are related to work and organizational commitment and motivation. The purpose of this research is to examine commitment and factors related to it in two distributed networks of internal communication specialists within Nokia.

The networks in question work through computer mediated communication as well as face to face meetings to share knowledge. The focus of the study is on intra-organizational level, as the thesis discusses groups only within the organizational boundaries. The research has three main objectives. First, to examine commitment and motivation in distributed work in general; second, to find practical implications in order to enhance the functioning of the networks through examining the role of the network in each network member's work; and third, to develop a measurement based on previous research to measure the above mentioned issues. Commitment is an especially interesting topic in the context of these networks as participation to them is voluntary. In addition, the present thesis aims at taking the research to a more general level through discussing the role and use of networks in organizations in general. The strength of this research positions is that it examines networks that exist in an actual business environment. The majority of research around such networks and networking in organizations in general has concentrated on more theoretical discussion or examined networks of students within universities.

In the present thesis, groups and group work are addressed from two angles. First, group work is examined from a more traditional perspective through the concept of team and teamwork. In this context also the issue of geographical distribution or "virtuality" of the groups is discussed in the context of what kinds of challenges it poses to group work. Second, a more recent point of view on groups in organizations will be taken, when the concepts of network and community of practice are introduced. The essence of networks will be discussed through two families of theories: theories of self-interest and collective action as well as theories of exchange and dependency, which are then planted in the context of the case groups.

Commitment is a general phenomenon that occurs in all social systems. As a research topic commitment is important regardless of its setting because increasing comprehension of the phenomenon may assist in better understanding the nature of the process through which people choose to identify with different organizations and how they find purpose in life. While some argue that certain types of organizational commitment have become outdated constructs (see for example Meyer & Allen 1997), Meyer and Allen (1997, 15) insist that the ongoing changes, such as increased global competition, reengineering and downsizing make commitment at least equally important as in the past. Admittedly, organizations are likely to employ fewer people, but the employees they retain will be asked to do more and take more responsibility. Based on this assumption, it is possible to argue that the work done in organizations, the way work is organized, and employee commitment have taken new forms in today's organizations.

Besides commitment, several neighboring concepts exist, such as identification and motivation, through which it would be interesting to examine networks in a contemporary company. This research concentrates on commitment, but touches these topics to some extent as well. Identification and motivation would be good starting points for follow-up research. Commitment has been studied in various contexts. In this thesis, commitment is studied from the perspective of the workplace. There are several reasons for the importance of studying commitment in this setting. Without employee commitment organizations simply would not work (Cohen, 2003). Identification and commitment of people with their organization can be a driving force behind a company's performance. In a turbulent organizational environment it is important to ask whether employees still identify with organizations, what forms such identification may take, and what factors shape it (Morrow 1993). According to Morrow (1993) insights gained in the study of commitment forms at the workplace may spill over to other areas and to society at large. In addition, the quality of individuals' linkages with organizations to which they belong also affects society at large. Society may need to be concerned whether its members have sufficient commitment to its institutions. Moreover, if the general quality of members' attachment to work organizations was low, this would carry certain implications for the society as well.

2. CONTEMPORARY ORGANIZATIONS IN GLOBAL CONTEXTS

Organizational forms of the twenty-first century are undergoing rapid and dramatic changes. The change is driven by advances and convergences in information and communication technologies (ICT) and by the collective economic, political, societal, cultural and communicative processes called globalization (Fulk & DeSanktis 1999). Globalization has contributed to the emergence of new organizational forms. Together with the increasing use of ICT, new opportunities to organize work emerge. Changes in the broader corporate world evidently have consequences on organizations. According to Jackson (1999, 7), this change can be grounded in three points:

1. New and alternative working arrangements will become increasingly attractive due to improvements in technological capabilities and cost-effectiveness as individuals demand for more flexibility.
2. The need for organizations to improve innovation and learning will demand new knowledge management systems making use of ICT that help members to acquire, accumulate, exchange and exploit organizational knowledge.
3. Internal networking will become more common because access to transfer of knowledge and expertise will increasingly take place across organizational and spatial boundaries.

Many contemporary organizations are distributed to different cities, countries or continents; some employees work at the office site and some from home or another location outside the office. Consequently, as the organization examined in the present thesis is a globally operating, multicultural company, these changes become reality in the daily operations of the company as well. One label for the contemporary organization is “knowledge-based organization” (Huotari, Hurme & Valkonen 2005, 25), which well describes the organization examined in the present research. The work in these organizations is knowledge-intensive, whereby information is the raw material of the organization’s operations. Huotari, Hurme and Valkonen (2005) state that information and knowledge are both input and output in the organizations’ operations, which are cultivated into action and know-how. Intra and inter-organizational networking is typical to the knowledge-based organization.

New organizational forms have implications on management as well. In his 1998 article “Management's New Paradigms”, Drucker argues against the traditional view that “the essential managerial task is to tell workers what to do” (Drucker 1998, 2). In fact, a workforce that is increasingly made up of knowledge workers, require a different management approach. According to Drucker (1998, 2), managers today “must direct people as if they were unpaid volunteers, tied to the organization by commitment to its aims and purposes and often expecting to participate in its governance. They must lead employees instead of managing them”. This is an especially interesting notion, when examining the networks of this research: voluntary participation requires interest, but also commitment of the employees in order for the network to be viable.

According to Monge and Contractor (2003), globalization processes are fundamentally altering the perception of time and space – another important notion that has an effect on contemporary organizations and work. Historically, organizations were organized by place and “when” was associated with “where”. Beniger (1986) argues that organizations were established at specific locations and events tended to occur in the particular locations, where organizations existed. As early information and communication technologies enabled people to communicate at a distance, organizations came to be organized by time. Monge and Contractor (2003) state that today, ICT makes it possible for people to experience the same event at the same time anywhere in the world. Distance no longer matters and time shrinks space. ICT has merged to generate distributed, or “virtual”, organizations so that people at a distance may work as if they were in the same space at the same time. (Monge & Contractor 2003.)

Giddens (2000) has made observations on networking in the context of globalization and organizations that are worth noting in the context of the present research. Giddens (2000), and a number of other scholars (see for example Granovetter 1992), have argued that people and organizations around the globe have traditionally been focused on their local networks rather than global contexts. People tend to be more embedded in home, neighborhood, community and organizational networks closer to them than they are in distant connections around the globe. Giddens (2000, 21) argues that the process of globalization is changing all this. Specifically, it is leading to “disembedding, the process by which traditional network ties are broken”. Equally important, globalization leads people to establish new ties at a distance through a process of “re-embedding, thus restructuring the world and shifting the focus from the local to the global” (Giddens 2000, 21). Monge and Contractor (2003, 6), state that for organizations this phenomenon is important, because it creates restructuring processes, new networks and connections with distant organizational communities around the world

Castells (1996, 462) points out the emergence of “timeless time”, a phenomenon created by hypertext and other multimedia features that confuse what was historically perceived as the natural sequence and time ordering of events. These communication forms alter the way organizations, people, and the rest of the world is experienced. Castells (1996, 373) states that:

> *“All messages of all kinds become enclosed in the medium, because the medium has become so comprehensive, so diversified, so malleable, that it absorbs in the same multimedia text the whole of human experience, past, present and future.”*

These changes in time and space are likely to intensify in the coming decades as ICT continue to converge (Monge & Contractor 2003).

Another important issue in the context of networking and globalization is reflexivity (Monge & Contractor 2003, 6). Lash and Urry (1994, 31) describe it as “deepening of the self” that provides opportunities for new forms of personal relations and participation in new kinds of communication networks. As ICT conveys news and information around the globe, people become more informed about the world, themselves and their place in the larger scheme of things. These identity-altering experiences include processes of individuation, whereby people come to rely less on traditional norms, values and institutions and more on their own knowledge of things (Giddens 2000). Monge and Contractor (2003) see this changing the nature of work expectations and experiences, and the way people see themselves, how they relate to organizations and what they are willing to tolerate. This notion is important in the context of this research as the above mentioned issues therefore have implications on work and organizational commitment as well.

2.1 Working in geographically distributed environments

Working in geographically distributed environments across time and space with the help of ICT is one of the core components of global, knowledge-based organizations. The possibility to utilize ICT and therefore to work regardless of time and space, has promoted the emergence of networks and networking in organizations. Electronic networking is fueling the rise of a new organizational form, often called the spider’s web. In these organizations electronic networks define the boundaries of the organization. Such spider’s web organizations accomplish work through small, globally dispersed groups that reshape themselves as environmental conditions or customer requirements change. (Knoll & Järvenpää 1998.)

Jackson (1999) identifies five perspectives in discussions of distributed working: the growth of information processing in organizations, heightening of flexibility issues, the disembodiment of organizations, the erosion of boundaries within and between businesses and the growth of electronic commerce, of which the latter will not be discussed as it is not relevant in the context of this research.

Debates on teleworking and geographically distributed organizations, as well as the information society in general, are keen to play up the growing importance of information in work processes and products (Castells 1996). Many accounts of distributed working are based on a belief that where work can be digitalized, new work configurations can prevail. When work is digitalized, representations of the world are encoded in computer software, allowing people to interact with the "virtual world" rather than the physical one. The growth of information or knowledge workers is a consequence of this. Davidow and Malone (1992, 65) observe that

> *"...it is increasingly obvious that the very business itself is information. Many of the employees in any corporation are involved in the process of gathering, generating or transforming information."*

Information and information processing therefore are in an increasingly important role in contemporary organizations. However, Jackson (1999) notes that it should be avoided to view organizations as merely information processing systems. Organizational flexibility is also one of the most discussed topics at the moment, especially in management literature. What flexibility means, has been a matter of considerable debate. Nonetheless, there is some consensus that organizations should get rid of bureaucratic constraints and allow more fluid working relationship, in which overheads can be cut, lead times reduced and effectiveness and innovation improved (Jackson 1999). Three areas of flexibility can be identified here: workforce flexibility, de-bureaucratization and organizational agility as well as flexibility in time and space. A focus on distributed working as heightened flexibility may combine all of the three above mentioned characteristics.

When approaching distributed work as disembodiment, the discussions often address the question of what it actually means to be "virtual". For many, the answer is that the organizations involved are defined by the absence of human components, such as customers or colleagues, as well as the nonhuman elements, such as buildings or offices. While distributed organizations lack form, they are still capable of having effect, while having effect heavily relies on the use of information technology. (Jackson 1999.) Disembodiment is one of the defining characteristics of distributed working. These are according to Barnatt (1995, 82–83): reliance on a distributed organization's functioning and survival in the medium of cyberspace; no identifiable physical form, with only transient patterns of employee-employer connectivity; boundaries defined and limited only by the availability of information technology.

One further set of issues and perspectives to distributed work is revealed by approaches that emphasize the matter of boundary erosion within and between organizations. Davidow and Malone (1992, 5–6) describe a distributed organization as follows:

> *"To the outside observer, it will appear almost edgeless, with permeable and continuously changing interfaces between company, supplier and customers. From inside the firm the view will be no less amorphous, with traditional offices, departments and operating divisions constantly reforming according to need."*

This description is well applicable when discussing geographically distributed intra-organizational groups as well, even if this perspective is not as relevant in this context as are the three first mentioned: the growth of information processing in organizations, heightening of flexibility issues, and the disembodiment of organizations.

2.2 Implications of ICT on organizations and work

The majority of distributed work requires communication through ICT, but the appropriate use of mediated as compared with face to face communication is not well understood. According to Nardi and Whittaker (2002) most theorists imply, that face to face discussion is the golden standard of communication, even irreplaceable. On the other hand, in a distributed situation, face to face communication can be costly and disruptive, and mediated communication sometimes may be preferable. (Järvenpää and Ives 1994.)

Development in ways of working and organizing work inevitably brings a need for new skills, procedures and even values and attitudes. The problem in introducing any new ways of working is that there is a danger of repeating the sort of mistakes made, for instance, in the world of system design. Jackson (1999) points out that designers of information systems often addressed themselves to the “manifest” and “overt” aspects of organizations, such as technologies, tasks, information flows and formal structures, to the neglect of social and cultural aspects. Jackson (1999) notes that the introduction of new technologies and corporate change strategies are still often looked upon as relatively non-problematical “technical matters”. Jackson (1999, 14) explains this in the following way:

> *“One problem for this may be the complexity of the technical knowledge involved. Few people have the business, technical and human resource expertise to tackle easily with such matters. It is not surprising that where new work concepts are produced and off the peg software suites developed, they may stand in lieu of a thorough organizational assessment as to the strategic opportunities and implications of technology-supported change.”*

This may again downplay the complexity involved in managing new work structures, as well as the know-how needed to appropriate benefits from the technologies. However, it is worth noting that technology is only the facilitator of new organizational structures and work methods. In contrast to, for example, what Marshall McLuhan (1964) argues in his theory of technological determinism, new technologies originate from people’s ideas and therefore technology does not follow its own course, independent of human direction. Technology does not appear "out of the blue" without human influence. To some extent technology can affect society and culture but culture and society affect technology first as all technology is human made.

2.3 Description of the target organization

Nokia includes four business groups: Mobile Phones; Multimedia; Enterprise Solutions and Networks. Nokia also includes three horizontal layers that support the business groups: Customer and Market Operations, Technology Platforms and a third horizontal layer including Research and Venturing and Business Infrastructure among others. (Nokia 2006.)

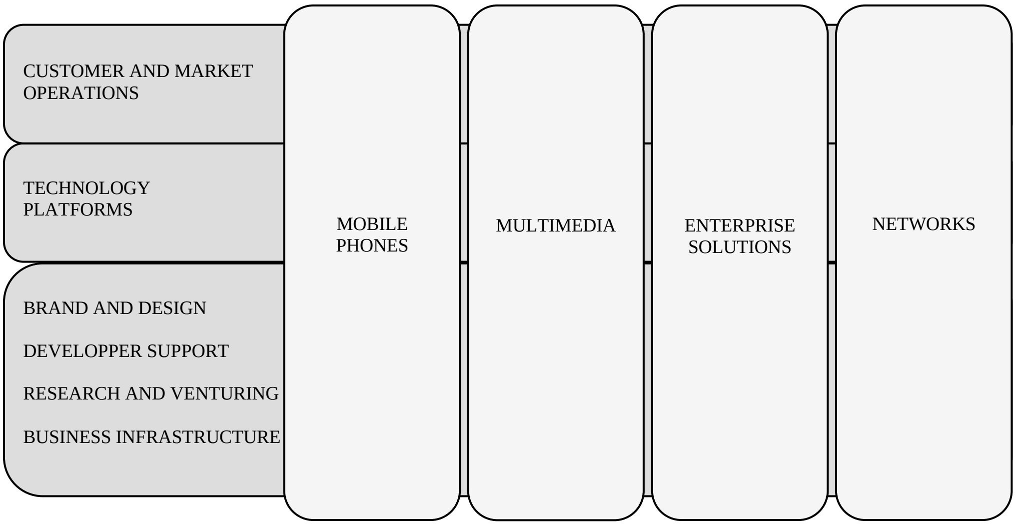

Figure 1. Nokia’s organizational structure (March 2006).

Nokia is the world leader in mobile communications. In 2005, Nokia employed 58 874 people of 128 nationalities, which makes it a truly global company (Nokia 2006). The global scope of operation has many implications on how work is organized inside the company. The main factor contributing to the mode of operation in global organizations such as Nokia is the fact that knowledge and knowledge work is in the core of innovation. Being strong in managing and leveraging knowledge as well as acknowledging the importance of collaborative work is fundamental in the ever changing environment of a globally operating company.

As stated in the introduction chapter, the present research has three objectives. First, to examine commitment and motivation in distributed work in general; second, to find practical implications in order to enhance the functioning of the networks through examining the role of the network in each network member’s work; and third, to develop a measurement based on previous research to measure the above mentioned issues. The networks through which commitment is studied in this research consist of internal communications specialists. They exist for sharing best practices among the network members and enhancing knowledge and information sharing between them and Corporate Communications.

In order to understand the nature of the networks’ work, a closer look at how the communication function is organized in Nokia is in place. All business or horizontal unit level internal communications are directed from Corporate Communications, where dedicated communications specialists or teams are responsible for internal communications in each business and horizontal unit. In addition to the platform level, there are many internal communications specialists outside the communications platform in the sub-units of the business and horizontal groups. These people take care of the internal communications planning and execution on the unit level.

Internal communications in the sub-units of the business and horizontal groups are usually run by just one full-time employee or in some cases a small team of part and/or full-time communications specialists. In one horizontal and one business group, the communications specialists of the sub-units have formed a network in order to share information and knowledge and support each other in the communications work. These two networks, one situated in a business group and the other in a horizontal group, will be examined in the present research. As described above, these internal communications specialists are not part of the communications platform. There are from 10 to 20 members in each group with an appointed coordinator from the Corporate Communications level. The coordinator of the group is responsible for internal communications on the business or horizontal group level. There are similar network structures in the other business and horizontal groups as well, but they do not operate as systematically as these two, and therefore they are not included in this research.

The researcher worked for Nokia in cooperation with the networks during the research. The information about the networks in the following paragraphs is based partly on the researcher’s own understanding about the networks and partly on interviews of both of the network coordinators. The network coordinators were interviewed in order to gather some basic knowledge about the networks.

The networks are important in many ways. They are a means of communication and their purpose is to disseminate information between the network members and to the Corporate Communications level. The networks are also an important arena for the employees to share best practices with colleagues. The majority of the network members are the only communications resources in their organization, which makes the benchmarking in the network important. The networks are also very important for Corporate Communications: The members of the networks provide information of their individual communications work done in the units. With the help of the network, it can be ensured that the work in each sub-unit is in line with the Nokia and Corporate Communications level strategies and plans. The networks function as a motivator for the network members in their individual work as well through giving new ideas and collegial support. The networks share characteristics of both traditional teams and networks of practice, which are discussed in chapter 3.

The networks are both similarly structured and share many characteristics. Though it is not obligatory to participate in the activities of the network, peer pressure seems to bring about the willingness to participate anyway. The network membership is a “side job” for the employees and the actual work of the network members is in their units. This is important to note when discussing commitment later on. In both networks, the established amount of face to face meetings is two to three times a year. Teleconferences are arranged when needed. In addition, individual network members are in touch with each other and with the group coordinator in issues specifically concerning a certain sub-unit or a certain topic that does not concern the whole network. For the face to face meetings, the team coordinator usually prepares the agenda with actual topics concerning issues ongoing in the organization and in the company in general. The meetings also have an educational function: usually at least one training topic is introduced in the meetings in order to freshen up the network members' professional skills. External speakers are also used in these meetings especially for training purposes.

One of the networks, network A, was established in 2004, while the other, network B, has existed from the year 2000. In the network B, the members seem to be more active in managing the network themselves: with the help of the network coordinator they have organized themselves in competence development groups that share knowledge on certain topics concerning their work. These groups aim at making use of and share the expertise and knowledge in the group. For this purpose the groups use team room, an electronic information storage space and other forms of ICT for discussion on topics of their specific interest. Network A does not have this kind of self-organized activity. The network coordinators do not have an official authority to influence the network members' work or personal plans, as the latter report to their superiors in Human Resources or Strategy functions in their unit. Consequently, it is up to the network member's willingness to follow the coordinator's recommendations. A summary of the networks' characteristics is presented in the table below.

Table 1. Summary of the characteristics of the case networks.

	Network A (established 2004)	**Network B** (established 2000)
Members	14 main contacts.	10 main contacts.
Sites	Several locations in Finland, Europe and USA.	Several locations in Finland.
Face to face Meetings	2–3 / year	2–3 / year
Purpose of the network according to the network coordinator	Support for communications specialists in their work. Maintenance and support of internal communications in the whole organization. Knowledge sharing and ensuring functional communication contacts.	Colleague support and knowledge sharing, keeping sub-unit targets in line with Corporate Communications targets and avoiding overlapping work. Competence development in communications as well as in the substance.
Reporting and organizational relations	The members do not belong to communications platform, but report to strategy / HR in their unit.	The members do not belong to communications platform, but report to strategy / HR in their unit.
Communication (excl. face to face)	Conference calls, e-mail, telephone.	Conference calls, e-mail, telephone, team room.

3. FROM TRADITIONAL TEAMS TO COMMUNITIES OF PRACTICE

An organization can arrange its work in many ways. Work needs to be organized in order for the organization to make sense of the complicated information arising from its environment (Weick 1979). According to Harris and Sherblom (1999) groups, used effectively in organizations, can produce outstanding results. With the help of group work, creativity can be enhanced and the scope of alternative solutions expanded. Indeed, many successful companies have been started by brainstorming in small groups, rather than by a single individual acting alone (Harris & Sherblom 1999, 13).

The old saying still holds true today: A group is more than the sum of its parts. Small groups are the cornerstones of organizational behavior in many aspects, operating at all levels and playing major roles in the informal interactions in organizations (Eisenberg & Goodall 1993). This chapter discusses ways of organizing group work in organizations. First, groups in organizations will be discussed on a general level – what they are made of and why groups exist. Second, group work will be examined in the context of teams and distributed work. Third, and most important aspect to group work in organizations will be the network perspective. Both teams and networks are important as the networks examined in the present research share some characteristics of both. The networks of the present research will be examined in the light of Lave and Wenger's (1991) work on communities of practice and then further on networks of practice (Hildreth et al. 2000). The essence of communities and networks of practice as a form of organizational network will be discussed through two theoretical traits: theories of self-interest and collective action as well as theories of exchange and dependency. Furthermore, at the end of this chapter, some managerial contributions for facilitating geographically distributed networks will be introduced.

The roots of group work in the theory of organizational behavior date back to the beginning of the 20th century. The well-known organizational researcher Mary Parker Follet (quoted in Harris & Sherblom 1999, 13) suggested that people reach their common goals through interaction and that the members of a group express themselves in a process that cultivates the whole group. Only at the beginning of 1960's an important change occurred in the discussion on organizational behavior: the interest was shifted towards group work. (Harris & Sherblom 1999.) Likert (1961, quoted in Lämsä & Hautala 2005, 103) came out with an idea that the organization should be examined and managed as a number of groups engaged with each other, not as separate departments.

According to Schein (1994) a group is any number of people, who interact and are aware of each other. Consequently, a group can be a dyad or formed by more people, who interact with and are interdependent of each other. In addition, according to Schein (1994), a group has a common goal: they strive for achieving something together. Often, the thought of the group members being aware of a positive interdependence in order to reach a goal, is connected with groups.

Harris and Sherblom (1999, 3) summarize the most important characteristics of small groups. They do not count dyads as groups like Schein (1994):

> *"A small group is a collection of at least three and usually not more that 20 individuals, who are interdependent, influence each other over some period of time, share a common goal or purpose, assume specialized roles, have sense of mutual belonging, maintain norms and standards for group membership and engage in interactive communication."*

Indeed, one of the major components of group work is communication. According to Dickinson and McIntyre (1997), communication involves the exchange of information between two or more group members in the appropriate manner. It also serves to clarify, verify, and acknowledge messages. Harris and Sherblom (1999, 3) define small group communication as “a transaction between and among people, whereby all the parties are continually and simultaneously sending and receiving information”.

Communication is central to group work because it links together other components such as monitoring of performance and feedback. Communication in small groups allows group members to pool their individual knowledge and skills and collectively formulate effective ways to perform tasks (Hirokawa 1990, 202). Successful group communication depends on the willingness and ability of each member to share responsibility for interaction and communication. Ultimately, the success or failure of any communication depends on the individuals involved and their ability to balance the dynamics of interaction in the group. (Harris & Sherblom 1999, 15.)

3.1 Teams in organizations

The business environment of organizations is changing in fast pace, which requires a flexible operation mode. It also signifies a need to link employees’ expertise. (Lämsä & Hautala 2005, 127.) Teams are often seen as a good alternative to tackle these challenges. Group and team are neighboring concepts. All teams are groups, but not all groups are teams. Teams are usually established to carry out some specific task in an organization. Today teamwork is a common way of working in many companies. (Lämsä & Hautala 2005, 127.) Senge et al. (1994, 235) trace the origin of the word team back into the Indo-European word *deuk*, meaning “to pull”. They argue that the essence of the word means “to pull together” and that the modern sense of the team emerged in the sixteenth century, meaning of a group of people acting together. From these origins they define a team to be “any group of people who need each other to accomplish a result”.

Teams have been defined in numerous ways. According to Dyer (1987) teams are ongoing, coordinated groups of individuals working together, even when they are not in constant contact. Greenberg and Baron (1995) define a team as a group whose members have complementary skills and are committed to a common purpose or set of goals for which they are mutually accountable. Katzenbach and Smith (1999) state that a team consists of a small group of people, who have complementary skills, are committed to the group’s task and ways of working, of which they share responsibility.

The importance of teams and teamwork should be obvious to anyone working within an organization (Truell 1991). Examples of the power of teamwork to help developing organizations, accomplishing tasks and innovating are provided in practically any discussion on organizational change or renewal. One important aspect that distinguishes a team from a random group of people is the purpose or a task of the group and a link to an organization. When the interests and expectations of the individuals in a small group come into alignment, so that there is a consensus on purpose, task and how to get things done, the synergies from teamwork can go beyond the efforts of the individual members to a new level of creativity and task accomplishment. Teams also differ from many other small groups, because teams themselves often control the group process. (Harris & Sherblom 1999, 123.)

Teamwork is not an end itself. It is a way to make an organization successful. (Lämsä & Hautala 2005.) A central issue in successful teamwork is the willingness of the group to learn. Obviously it is not sensible to examine teamwork without connecting it to the organization, where the teams work. Contextual issues have an enormous impact on how the team works. Groups are dependent on their operational environment and larger societal context. (Huotari & al. 2005.) If an organization succeeds in creating an atmosphere supportive to teamwork and learning in teams, the organization can reach many benefits. A successful team increases the team member’s motivation and commitment. If the work is done according to the Tayloristic model in small individual parts, it is hard for the employee to see the importance of the work in the larger organizational context. In teams the employees work together on larger entities, which make it easier to understand the significance of the work. The work seems more meaningful, which has an effect on work motivation and satisfaction. There is also a certain amount of peer pressure in a group that has implications on work motivation as well: fellow team members control each other effectively. (Lämsä & Hautala 2005, 142.)

3.2 Geographically distributed teams

The nature of teams has changed significantly because of changes in organizations and the nature of the work they do. Organizations have become more distributed geographically and across industries. Relationships between people inside an organization and those traditionally considered outside, such as customers and suppliers, are becoming more important. There is a new emphasis on knowledge management harvesting the learning from the experience of members of the organization so that it is available to the whole organization. This, added with rapid growth of the Internet and telecommuting coupled with increased globalization of organizations has contributed to the growing number of people working in geographically distributed teams within and between organizations. (Kimball 1997.) All these changes in organizations have changed how teams are formed and how they operate. According to Kimball (1997) teams have changed in many ways that are summarized in the table below.

Table 2. Summary of changes of teams in contemporary organizations.

From	To
Fixed team membership	Shifting team membership
All team members drawn from within the organization	Team members can include people from outside the organization
Team members are dedicated 100% to the team	Most people are members of multiple teams
Team members are co-located organizationally and geographically	Team members are distributed organizationally and geographically
Teams have a fixed starting and ending point	Teams form and reform continuously
Teams are managed by a single manager	Teams have multiple reporting relationships with different parts of the organization at different times

The term distributed, or virtual, team is frequently used to describe teams that span distance and organizational boundaries and therefore work through using ICT. Warketin and Beranek (1999) state that distributed teams are groups of people engaged in a common task or goal communicating through electronic means, which may be electronic mail, web-based communications, video or audio, but in general having considerable interaction online. Jarvenpaa and Ives (1994) define a distributed team as an evolutionary form of a network organization; team processes are enabled by ICT. Henry and Hartzler (1998) define distributed teams as groups of people who work closely together even though they are geographically separated and may reside in different time zones in various parts of the world. Distributed teams may also be cross-functional workgroups brought together to tackle a project for a finite period of time. Although the modern organization faces a number of challenges in its competitive environment, the imperative for moving from traditional face to face teams to geographically distributed teams working through ICT derives primarily from five specific factors according to Townsend, DeMarie, & Hendrickson(1998, 18):

1. *"The increasing amount of flat or horizontal organizational structures.*
2. *The emergence of environments that require inter-organizational cooperation as well as competition.*
3. *Changes in workers' expectations of organizational participation.*
4. *A continued shift from production to service/ knowledge work environments.*
5. *The increasing globalization of trade and corporate activity."*

Distributed teamwork may be synchronous (same time/different place) or asynchronous (different time/different place). Synchronous meetings often are more spontaneous, ideas are exchanged with less structure than asynchronous meetings. Participants communicate with each other in a way that it is sometimes difficult to attribute an idea to one participant or establish the reason behind a particular decision. In contrast, asynchronous meetings are more structured than synchronous meetings. These meetings rely more on documents exchanged among participants. Compared with synchronous meetings, asynchronous meeting participants have longer to compose their messages and therefore it is easy to attribute an idea to its originator and establish the reason behind a particular decision (Warkentin & Beranek 1999). However, Warkentin and Beranek (1999) point out that asynchronous meetings often require more time than synchronous meetings because information exchange takes longer. Asynchronous meetings are frequently used by groups, in which at least one participant is in a remote location.

According to Kerber and Buono (2004), distributed teams allow organizations to bring together critical contributors who might not otherwise be able to work together due to time, travel, and cost restrictions. In addition, distributed teams can enhance the available pool of resources by including people from outside the sponsoring organization, such as supply chain affiliates, members of partner organizations, or external consultants. Distributed teams also allow organizations to hire and retain the best people, who may be unable or unwilling to relocate, and to adapt and realign the team when project requirements change. Just as important, distributed teams facilitate the implementation of corporate-wide initiatives in global organizations and are especially valuable for companies in which these initiatives must adapt to local cultures.

While many challenges associated with distributed teams are similar to those of co-located teams, these issues are complicated by the time and distance challenges in distributed teams (Henry and Hartzler, 1998). According to Kerber and Buono (2004), team leaders typically find that achieving alignment and commitment to the team's purpose can be more challenging for distributed teams, especially those that cannot meet face to face. Moreover, in the absence of face to face communication and interaction, team members may have less understanding of each other, potentially contributing to misunderstandings and conflict. To overcome these challenges, distributed teams rely heavily on ICT, such as company intranets, team conference calls, e-mail, video conferencing, and various groupware applications to tap into the intelligence and expertise of team members. (Henry and Hartzler 1998). While the expansion of electronic communication technologies has facilitated a rapid increase in the use of distributed teams (Kerber & Buono 2004), most of them still rely on travel and face to face interactions to create cohesiveness. Especially during team formation, the focus often is on the importance of personal contact and socializing to build trust and success. In fact, many distributed teams are only moderately, rather than completely, distributed as they intersperse traditional person to person interaction with technology-based. (Kerber & Buono 2004.) This overview on distributed work is applicable for the networks examined in present research as well.

3.3 Challenges for managing distributed teams

Although the technology that supports distributed work gets most of the attention, it is really the changes in the nature of organizations and groups within them, not their use of technology that creates new challenges. Most distributed teams operate in multiple modes including having face to face meetings when possible. Kimball (1997) states that managing a distributed team means managing the whole spectrum of communication strategies and project management techniques as well as human and social processes in ways that support the team. The nature of distributed teams creates unique challenges for team management. A number of disintegrating forces continually pull teams apart, including time zone differences, local pressures, cultural differences, and a general lack of face to face contact and interaction. Team management must overcome these forces on an ongoing basis. (Kerber & Buono 2004.) According to Bal and Foster (2000, 4020) the use of distributed teams allows organizations to manage a greater number of projects without the cost and time spent on face to face meetings.

> *"Distributed teams aim to preserve best practice, but eliminate the necessity for physical collocation, thus enabling manufacturers to collaborate, rapidly and continuously, with suppliers worldwide, irrespective of geographical constraints."*

Distributed teams, as identified above, require modern networking technologies in order to achieve high levels of mutual affinity and fast decision-making amongst their members. Using communication technologies can create huge benefits for distributed teams, but the foundation for practice or implementation procedure that would allow teams to be productive and satisfying must be in place (Olaniran 2003). The key to accomplishing this objective is for team managers to facilitate teams in a manner that anticipates potential sources of problems and to bring team members along in preventing or overcoming attribution errors (Bal & Foster 2000).

According to Kimball (1997) distributed teams form and share knowledge on the basis of information pull from individual members, not a centralized push. Knowledge-based strategies should therefore not be centered around collecting and disseminating information but rather on creating a mechanism for practitioners to reach out and communicate with other practitioners. The goal is to find ways that support the transformation of individuals' personal knowledge into organizational knowledge. That goal requires designing environments where all the individuals feel comfortable and have incentives to share what they know. In order to have productive conversations among team members, some kind of common cognitive ground should be created for the group. Even teams from the same organization can have a hard time developing conversations deep enough to be significant without some kind of specific context as a beginning frame. Contexts can be created by guest speakers, training courses, requests for input to a specific project or question and special events. (Kimball 1997.)

Kerber and Buono (2004) argue that ultimately the challenge for leaders of distributed teams is to create a level of collaboration and productivity that rivals the experience of co-located teams, and to accomplish these outcomes against the backdrop of the rapid changes facing nearly every business today. Leaders of such teams should be able to facilitate team cohesiveness by taking full advantage of existing and emerging collaborative technologies. (Kerber & Buono 2004.)

ICT facilitates the manager's ability to intensify the integrating forces that enhance team effectiveness. What is communicated and how it is communicated via this technology, however, remain the most critical factors.

Kerber and Buono (2004, 14) suggest that successful distributed collaboration emerges, when the following steps are fulfilled:

- *"Work together on an important business challenge that team members find personally compelling*
- *Jointly define and commit to the team's identity, goals and processes*
- *Implement a focused performance management process that is embedded in team routines*
- *Create lavish information flow by using familiar as well as new communication technologies to overcome distance and time*
- *Tie these efforts together through the personal commitment and dedication of the team leader."*

Often the term distributed team is used to refer to a range of groups, from actual teams to anonymous loose networks of people with a shared interest. (Armstrong & Erika 2002.) The networks of the present research are not teams in a traditional sense as they do not fulfill all the criteria of a team: a (work) group with stable and defined membership that has established a shared working process in the pursuit of a common goal that they can only achieve together. However, research has showed (see for example Armstrong & Erika 2002) that it does not seem relevant whether the group fulfills all the requirements for a team as such intermediate forms can work very effectively as well. Therefore, in addition to teamwork, also other ways of organizing work should be discussed in the context of the present research. Networks and the importance of networking are ones of the most discussed themes in the contemporary organizations today.

3.4 The network perspective to small groups

The current environment for organizations is characterized by uncertainty and continuous change. This rapid and dynamic pace of change is forcing organizations accustomed to structure and routine to improvising solutions quickly and correctly. To respond to this changed environment, organizations are moving away from the structures of the past based on hierarchies; discrete groups and teams and moving towards more fluid and emergent organizational forms such as networks and communities. In addition to the pace of change, globalization is another pressure brought to bear on modern organizations, which brings about an increased need for knowledge sharing. The concepts of network and networking are extremely general and broad, ones that can be applied to many phenomena in the world. The term network may be understood in many ways and networks can take a number of forms. Networking in the organizational context in general is regarded as a process through which organizations can develop competencies and share knowledge in different areas. (Harris et al.1999.)

Traditionally, organizational systems were described based on hierarchy and authority. With the world accelerating in its need for both time-critical and high-quality information, these traditional means are often no longer sufficient. According to Neus (2001, 2), whereas traditional, hierarchical organization structures are very good at getting tasks done in a "divide and conquer paradigm", the success of the contemporary companies increasingly depends not on dividing the work, but rather on sharing the knowledge. Yet, for facilitating the free exchange of knowledge, networks are inherently better equipped than hierarchies. Neus (2001, 2) describes the disadvantages of a hierarchical organization as follows:

> *"From an information sharing standpoint, a hierarchical, tree-like organization is a worst-case scenario because it is a collection of bottlenecks: There is only one official path between any two nodes in the graph and the likelihood of people sharing information can drop as a function of their distance in the corporate org-chart."*

Huotari et al. (2005, 20) state that an organization consists of various kinds of networks, for example task, innovation, and relationship networks that are interrelated with each other. Task networks exist to perform a certain task. Innovation networks create, develop and distribute new knowledge, thoughts and operational models. Relationship networks create and maintain employees' interaction relationships with each other. Networks typically are not separate, but one employee usually belongs to many interrelated networks. (Huotari et al. 2005.)

Neus (2001, 3) states that faced with the dilemma of adapting to the changes in their environment, companies have started overlaying their primary “command and control” structure not only with a subject-driven layer, forming a matrix, but also with communities of practice, which are semi-formal networks of practitioners, who exchange information on a common subject or problem of interest. They may also be called competencies, communities, knowledge networks or special interest groups and run all over the organizational structure to facilitate the exchange of information and lessons learned among those who are dealing with a common set of problems or issues. (Neus 2001.) The next sections will cover the role of communities of practice in the contemporary organization.

3.5 Defining communities of practice

Originating from the knowledge management approach described in the previous section, there has been recognition of the importance of sharing also more subtle and soft types of knowledge in organizations. According to Hildreth et al. (2000), communities of practice have been identified as being groups where such types of knowledge can be nurtured, shared and sustained.

Communities of practice have been around for as long as human beings have learned together. At home, at work, at school, in hobbies and so forth. According to Wenger (1998a), communities of practice “…are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly”. People become members of a community of practice through shared practices; they are linked to each other through their involvement in certain common activities. It is mutual engagement that binds the members together into a social entity. In fact, communities of practice are everywhere. They are a familiar experience, so familiar that it often escapes attention. Yet, when it is given a name and brought into focus, it becomes a perspective that can help understand the world better. In particular, it allows seeing past more obvious formal structures such as organizations or classrooms, and perceiving the structures defined by engagement in practice and the informal learning that comes with it.

The concept of a community of practice was developed by Lave and Wenger (1991) in the beginning of the 1990's. For them, a community of practice consists of professionals or experts of some specific field who are tightly bound to each other. Originally Lave and Wenger did not place the members of a community of practice inside the same organization, nor was it applied on knowledge workers. Later on, the term has been applied to distributed networks, such as the ones of the present research as well. The use of the term in the context of the present research is well grounded as first, the network members are all professionals of the same field, and second, they all work individually in their respective organizational units that may have very different organizational culture and ways of working.

Practice is the source of coherence in a community. Wenger (1998a) describes this relation by dividing practice as a property of a community into three dimensions: mutual engagement, a joint enterprise and a shared repertoire (See figure 2). Participation provides the key to understanding communities of practice. Communities of practice do not necessarily require co-presence, a well-defined or identifiable group, or socially visible boundaries. However, communities of practice require participation in the community activities about which all participants have a common understanding. (Hildreth et al. 2000.) The community and the degree of participation are inseparable in many aspects.

Membership in a community is a matter of mutual engagement, which defines the community. (Wenger 1998a) A community of practice is not just a random group of people, nor is it synonymous to group, team or network although there are many similarities in all of the concepts. According to Wenger (1998a, 45):

> *"Membership is not only a matter of social category, declaring allegiance, belonging to an organization or having a title or personal*

> *relationships with others. A community of practice is not defined only by who knows whom in a network of interpersonal relations. Neither is geographical proximity sufficient to develop practice."*

Mutual engagement requires interactions and geographical proximity can help, but it is not a prerequisite for forming a community of practice. This is an especially important notion in the context of the present research, as the members in the networks are not co-located. Another characteristic of practice as a source of community coherence is the negotiation of a joint enterprise. According to Wenger (1998a, 77), three points are relevant about the joint enterprise that keeps the community of practice together.

1. *"It is a result of a collective process of negotiation that reflects the full complexity of mutual engagement.*
2. *It is defined by the participants in the very process of their situation and thus belongs to them in a profound sense, in spite of all the influences beyond their control.*
3. *It is not merely a stated goal, but creates among participants relations of mutual accountability that become an integral part of the practice."*

Communities of practice develop in larger contexts; historical, societal, cultural and institutional. Defining a joint enterprise is a process, not a static agreement. It produces relations of accountability beyond fixed constraints or norms. Mutual engagement does not require homogeneity. Therefore, a joint enterprise does not mean agreement in any simple sense: disagreement can be seen as a productive part of the enterprise. To conclude, the enterprise is joint when it is communally negotiated, not in that everybody believes the same thing or agrees with everything. (Wenger 1998a.) This means that the members of a community of practice must find a way to do things together and live with their differences as well as coordinate their differing aspirations: in other words to compromise.

Yet another characteristic of practice as a source of community coherence is the development of a shared repertoire. Over time, the joint pursuit of an enterprise creates resources for negotiating meaning. The repertoire of a community of practice include routines, words, tools, and ways of doing things, gestures, symbols and concepts that the community has produced or adopted in the course of its existence, and which have become part of its practice. (Wenger 1998a, 83.) The three dimensions of practice, mutual engagement, a joint enterprise and a shared repertoire, as the property of a community are summarized in figure 2 below (adapted from Wenger 1998a, 73).

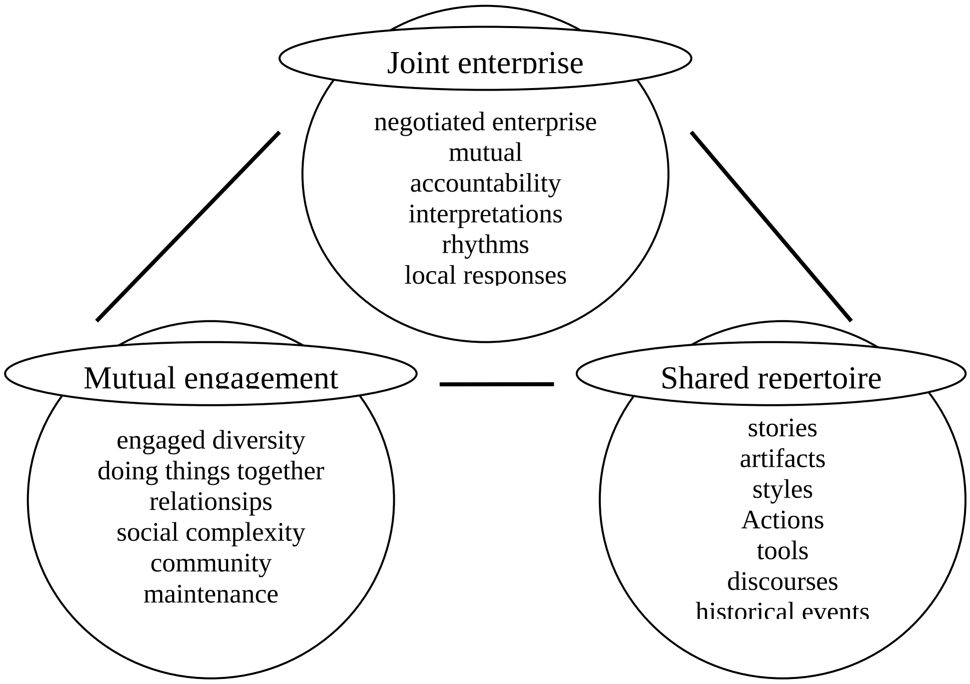

Figure 2. Dimensions of practice as the property of a community.

Communities of practice are centered around participation, which has implications on learning in them. According to Wenger (1998a, 7), for individuals this means that learning is “an issue of engaging in and contributing to the practices of their communities”. For communities, this means that learning is “an issue of refining their practice and ensuring new generations of members”. For organizations, this means that learning is “an issue of sustaining the interconnected communities of practice through which an organization knows what it knows and thus becomes effective and valuable as an organization”. (Wenger 1998a.) Learning in this sense is not a separate activity.

Communities of practice are not intrinsically beneficial or harmful. However, there are some undisputed benefits in them. Good practices are distributed and the knowledge of an individual member becomes a shared resource. According to Wenger (1998a), such communities hold the key to real transformation as a locus of shared knowledge, interpersonal relations, engagement in action and negotiation of enterprises. However, a negative aspect to communities should be noted as well: too tight communities may prevent the development of new practices and innovations.

It should be noted that not everything called a community, is a community of practice. According to Hildreth et al. (2000), three characteristics are crucial to communities of practice: domain, community, and practice. A community of practice is not only a network of connections between people. It has an identity defined by a shared interest. Membership therefore implies a commitment to the shared interest or domain, and therefore a shared competence that distinguishes members from other people. The domain is not necessarily something recognized as expertise outside the community itself. (Hildreth et al. 2000.) Sometimes members of a community of practice value their collective competence and learn from each other, even though maybe only few people outside the group may value or even recognize their expertise.

In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. A website, for example, in itself is not a community of practice. Having the same job or the same title does not make a community of practice unless members interact and learn together. Members of a community of practice do not necessarily work together on a daily basis either. A community of practice is not only a community of interest. Members of a community of practice are practitioners. According to Wenger, they develop a shared repertoire of resources: experiences, stories, tools, and ways of addressing recurring problems, in short a shared practice. This takes time and sustained interaction. The development of a shared practice may be more or less self-conscious. (Wenger 1998a; Hildreth et al. 2000.) The combination of these three elements constitutes a community of practice. In consequence, developing these elements in parallel, one cultivates a community of practice. In the next chapter, communities of practice will be discussed in the context of an organization and what forms communities of practice take in organizations.

3.6 Communities of practice in contemporary organizations

The concept of community of practice has found a number of practical applications in business, organizational design, government, education, professional associations, development projects, and civic life. The concept has been adopted quite readily especially by people in business because of the recognition that knowledge is a critical asset that needs to be managed strategically. Wenger (1998b) states that initial efforts at managing knowledge focused on information systems with disappointing results. Communities of practice provide a new approach focusing on people and on the social structures that enable them to learn with and from each other. Today, according to Hildreth et al. (2000), there is hardly any organization of a reasonable size that does not have a community of practice initiative in some form.

Wenger (1998a) defines organizations as social designs directed at practice. Communities of practice are the key to an organization's competence and to the evolution of that competence. Wenger (1998a, 12) argues however, that communities of practice differ from institutional entities along three dimensions.

1. *"They negotiate their own enterprise, though they may at times construct a conforming response to institutional prescriptions.*
2. *They arise, evolve and dissolve according to their own learning, though they may not do so in response to individual events.*
3. *They shape their own boundaries, though their boundaries may at times happen to be congruent with institutional boundaries."*

The contrast that Wenger aims to define by the three dimensions described above, is the one between organizational design and lived practice. From this perspective he presents two views of an organization: The designed organization or *institution* and the *practice*, which gives life to the organization and is often a response to the designed organization. Wenger's point of view to organizations is that an organization is the meeting of two sources of structure: the designed structure of the institution and the emergent structure of practice. Wenger (1998a, 13) further analyzes the roles of the institutional organization and the practice.

> *"Unless institutional roles can find realization as identities in practice, they are unlikely to connect with the conduct of everyday affairs. Institutions define roles, qualifications and the distribution of authority. Institutions also establish relations of accountability through various systems of measurement, but each community of practice also defines its own regime and accountability. Finally, institutions provide a repertoire of procedures, policies and rules, but communities must incorporate these into their own practices in order to decide what they mean in practice in different specific situations."*

Teigland (2003, 5) states that organizational literature has used the distinction between formal and informal structures as a way of dividing the interactions that occur in organizations. The formal structure has been used to describe the organizationally specified role relationships between individuals in formal positions while the informal structure has been used to describe personal friendship relationships that often develop in small groups. However, it is important to note that several scholars propose that the distinction between formal and informal structures is no longer very useful (see for example Monge & Contractor 2003) since they argue that this distinction has diminished significantly in recent years and is expected to continue to do so (Monge & Contractor 2003). Reasons provided for this decline include changes to more team-based forms of organizing, the adoption of matrix forms of organizational structure, shifts to network forms of organizing as well as the increase in lateral communication. (Teigland 2003.)

Organizational design and practice are both sources of structuring in their own right. They interact and influence each other. Each community of practice within an organization has its own vision and strategies in addition to those of the organization. Wenger (1998a) stresses that viewing practice as a response but not as direct result of organizational design does not lessen the influence of the institutional context in which they arise from. Many communities of practice arise from the organizational design and they may even owe their existence to the organizational design. It is worth noting though that even if the community exists in response to an organizational mandate, it is still the community that produces the practice.

Do all the aspects described above make it possible to take the concept of a community of practice and plant it into the context of the contemporary company and especially if the members of the community are knowledge workers and work in a distributed environment? There have been several attempts to define communities of practice in the commercial environment. Brown and Grey (1998) defined a community of practice as follows:

> *"At the simplest level, they are a small group of people who have worked together over a period of time. Not a team, not a task force, not necessarily an authorized or identified group. They are peers in the execution of 'real work'. What holds them together is a common sense of purpose and real need to know what each other know."*

As stated above, the concept of the community of practice has been extended to encompass new meanings that were not part of Wenger's original idea. This has led the term being applied to a wide range of groups from project teams to functional departments, sometimes erroneously. Communities of practice are not a new kind of organizational unit; rather, they are a different cut on the organization's structure, one that emphasizes the learning that people have done together rather than the unit they report to, the project they are working on, or the people they know. (Wenger 1998b.)

Communities of practice in organizational environments have a variety of names, such as communities of practice, networks of practice or even invisible colleges, among others. The definition by Teigland (2003, 4) of a network of practice "as a set of individuals connected together through social relationships that emerge as individuals interact on task related matters when conducting their work." fits well in the framework of the networks of the present thesis. What distinguishes a network of practice from other networks according to Teigland (2003, 5), is that the primary reason for the emergence of relationships within a network of practice is, similarly to communities of practice, that individuals interact through social discourse in order to perform their work, asking for and sharing knowledge with each other. Thus, a network of practice can be distinguished from other networks that emerge due to other factors, such as interests in common hobbies or discussing sports while taking the same bus to work, etc. Finally, practice need not necessarily be restricted to include those within one occupation or functional discipline. Rather it may include individuals from a variety of occupations; thus, the term, practice, is more appropriate than others such as occupation. (Teigland 2003.) These descriptions can be applied to communities of practice as well. What distinguishes a network of practice from a community of practice is the ways of interaction: the members of a network of practice can be geographically distributed and therefore interact through ICT.

Such communities as the ones in the present research have also been termed as communities of commitment. Through this term, the point of view to communities is slightly different, but in essence, still the same. A community of commitment is quite similar to communities centered on practice in many ways. People with varying expertise in a wide range of technical and non-technical disciplines who express a commitment to a mutual purpose populate these communities. Many of the councils, communication teams and project teams deployed in most companies are examples of such communities of commitment. Wenger and Snyder (2000) suggest that communities of practice and communities of commitment add value to organizations by transferring best practices among other things.

A closer look at the distinction between a community of practice and other forms of cooperation in organizations should be made in order to highlight the differences in these concepts that are frequently mixed up. There are several differences between teams and communities of practice. A team usually has a specific goal to accomplish and is often, but not always disbanded when this goal is reached. A team usually has to report on its activities and outputs higher up in the hierarchy. On the other hand, a community of practice has a general purpose of information sharing, but usually sets its own agenda, goals and life span. Its purpose and priorities may be oriented towards what members consider important. No, or very little control mechanisms are imposed on the community of practice by the organization. (Hildreth et al. 2000.)

Wenger and Snyder (2000, 143) have compressed the core ideas behind different forms of groups work within organizations. Communities of practice, formal work groups, teams, and informal networks are useful in complementary ways. Below is a summary of their characteristics.

Table 3. Summary of the characteristics of different groups in organizations.

	Purpose	Who belongs?	What holds it together?	How long does it last?
Community of practice	Develop members' skills; to exchange knowledge	Members who select themselves	Passion and commitment with the group's expertise	As long as there is an interest in maintaining the group
Formal work group	Deliver a product or service	Everyone who reports to the manager	Job requirements and goals	Until the next reorganization
Project team	Accomplish a task	Employees assigned by senior management	The project's milestones and goals	Until the project has been completed
Informal network	Collect and pass on information	Friends and business acquaintances	Mutual needs	As long as people have a reason to connect

Hildreth et al. (2000) see the form of legitimation that is present as the distinctive issue between a team and a community of practice. In a team legitimation usually derives from the formal hierarchy of the organization. In communities of practice legitimation is more informal and derives from members earning their status in the community. Is it then possible for a team to transform into a community of practice? According to Hildreth et al. (2000) it is, as informal relationships develop and the source of legitimation changes in emphasis.

It should be noted that just because communities of practice usually arise naturally and organizations impose no or little control over them, does not mean that organizations cannot do anything to influence their development. Most communities of practice exist whether or not the organization recognizes them. Many function well when left alone, some might benefit under the institutional spotlight, and some may need to be carefully looked after. According to Wenger (1998b) a good number will benefit from some attention, as long as this attention does not smother their self-organizing drive.

Teigland (2003, 6) summarize the characteristics of networks through a matrix (Figure 5), which can be applied for the present thesis as well. The networks of the present researched fit into the category of intra-organizational networks of practice as the communication method used are both face to face and electronic.

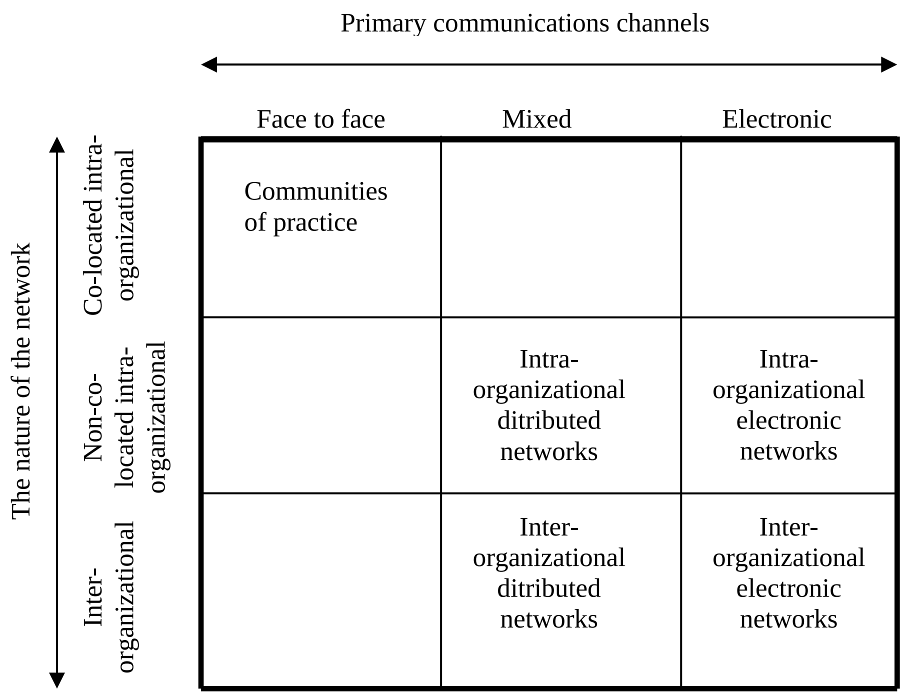

Figure 4. Matrix of networks of practice. (Adapted form Teigland 2003, 24.)

Within an organization, communities of practice may be seen as a subset of larger networks of practice throughout the organization. According to Teigland (2003, 34), intra-organizational distributed networks of practice are emergent relationships of individuals who are dispersed across the organization yet who work on similar tasks using a similar base of knowledge and as such can be distinguished from dispersed teams that are formally mandated and goal-oriented. In contrast to communities of practice, which may comprise of individuals from several different disciplines or professions, intra-organizational distributed networks of practice are more likely to incorporate individuals from a single discipline or profession. The reason for this is that as individuals are separated from each other's local practice, the practice knowledge that they share in common declines. (Teigland 2003.)

In the context of the networks of the present research, it should be noted that the networks did not arise naturally, but the initiative to start the networks came from Corporate Communications. This, however, does not imply that the networks in their core would be something other than networks of practice. Indeed, Hilderth et al. (2000) point out that such networks can be true networks of practice even if the initiative in forming them comes from outside the community. It has been shown that the concept of a community of practice can be applied in the context of contemporary organizations, but can communities of practice exist in geographically distributed environments?

In order to work effectively in geographically distributed environments, companies are increasingly operating in international distributed groups, teams and networks. These are seen as an effective and flexible means of bringing both expertise and skills to specific problems and tasks. In response to this development, the concept of community of practice has been extended from Wenger's and Lave's (1991) original context to encompass a wide range of definitions including distributed groups. The biggest difference between the original idea and a distributed community of practice is that the original examples of communities of practice were co-located. However, the internationalization of business, which promotes companies to turn into teams and communities, is also making operations more geographically distributed. (Hildreth et al. 2000.) A distributed community of practice that is composed of professionals of a certain field who interact mainly through ICT has been termed as network of practice (see for example Hildreth et al.2000). Therefore, it stands to reason that the networks of the present research will be termed as networks of practice as well and will be referred as such hereafter.

In the figure 4, the networks of the present research would belong to the group of intra-organizational distributed networks, where communications methods are mixed.

Being distributed does not exclude the use of face to face meetings, but several factors such as geographical dispersion makes communicating through ICT necessary. Some aspects of a community of practice translate from co-located to distributed quite easily: finding a common purpose or a shared interest, for example. Some aspects, however, cannot be translated as effortlessly without the appropriate technology, such as forming relationships and mutual engagement. With the appropriate technology and environment communities of practice can fully function in geographical distribution as well. If the members of the community are doing similar jobs, then there will already be a shared domain of language and knowledge. Indeed, research (see for example Lee & Neff 2004; Hildreth et al. 2000; Neus 2001) has shown that communities of practice translate form co-located to distributed and therefore to networks of practice but also new networks of practice can emerge in such environments. One of the most important factors that make any group, network or community successful is participation. The degree of engagement and participation is especially important in distributed environments.

3.7 Participation in networks of practice

Engagement to a network of practice is often voluntary and results in the creation of a knowledge repository of some sort available to all network members regardless of the original participation. Networks of practice are inherently formed on the interaction and social ties of the members. Thus, one helpful theoretical lens through which to investigate networks of practice are social theories. (Teigland & Wasko 2004.) Taking a look at some of these theories, and discuss them in the context of networks of practice is reasoned as many social theories are based on generative mechanisms that are directly relevant to the emergence of human networks (Monge & Contractor 2003, 141). Here, two categories of the many theories are examined; theories of self-interest and mutual interest, sometimes called collective action, as well as theories of social exchange and dependency. A number of other social theories exist through which networks of practice could be studied. In the present research issues such as voluntariness of participation and importance of interaction between colleagues in a distributed environment makes these two theoretical traits especially interesting.

3.7.1 Theories of self-interest and collective action

Social theorists have long been fascinated by self-interest as a motivation for economic and other forms of social action (Coleman 1986). According to Monge and Contractor (2003, 142), theories of self-interest argue that people make what they believe to be rational choices in order to acquire personal benefits. The strong form, rationality, of this theoretical mechanism was originally conceived by Adam Smith (quoted in Monge & Contractor 2003, 142). It states that people attempt to maximize their gains or minimize their losses. Early rational choice theorists assumed that people, who face problems for example in allocating scarce resources, routinely examine all possible alternatives through a personal cost-benefit analysis (Monge & Contractor 2003). Simon (1976) formed a weaker form of this theoretical mechanism, which he called bounded rationality. The theory asserts that people rarely have the time, energy or resources at their disposal to evaluate all possible alternatives. The principle of bounded rationality asserts that people satisfy and suffice rather than maximize (Simon 1976.) This means that people choose the first satisfactory or acceptable alternative, rather than explore all alternatives and then select the best.

According to Monge and Contractor (2003, 142), two strands in the family of self-interest theories are especially interesting from the point of view of organizational networks: theory of social capital and theory of transaction cost economics. The theory of social capital emphasizes that structural holes in networks, places where people are unconnected, provide people with opportunities to invest their human resources by linking with people who are not linked. (Monge & Contractor 2003.) In return for “brokering” this relationship, they expect to earn a profit on their investment. This suggests that control over the flow of information between people is a crucial element in the operation of networks. People accumulate social resources, or social capital, which they invest in social opportunities from which they expect to profit. (Burt, 2001.) Bourdieu and Wacquant (1992, 119) sum up the meaning of social capital as follows:

> *“Social capital is the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.”*

It is worth noting that social capital is different from human capital, which represents the individual characteristics that people have, such as intelligence and activeness. Thus, social capital builds up from relationships, such as those embedded in networks. (Monge & Contractor 2003.)

Another self-interest theory to be examined here is the transaction cost economics theory developed by Williamson (1985). Transaction cost economics theory explores the information, communication and other coordination costs involved in organizational operations. Monge and Contractor (2003, 151) state that organizations seek to minimize these costs when making decisions about how to organize. Frequently, they discover the search for best market buys is more expensive than organizing hierarchically. However, the cost to administer hierarchies is also often quite high. Theoretical generative mechanisms that account for markets are exchange and reciprocity. A network organization can reduce both information search costs in markets and administrative costs of hierarchies. Network organizations seek to maximize joint value of exchanges with the organizations to which they are linked. (Monge & Contractor 2003, 150–154.)

Theories of collective action or mutual interest can be discussed in the light of networking as well. Collective action is a term that has been broadly applied to a wide range of phenomena in the social sciences (Coleman 1986), including organizational communication. Its main focus is on “mutual interests and the possibility of benefits from coordinated action” (Marwell & Oliver 1993, quoted in Monge & Contractor 2003, 159), rather than on individual self-interests. There are many views on collective action. In this context it is reasoned to focus on public goods theory for three reasons. First, public goods theory is the most fully developed collective action theory so far. Second, several communication scholars have used the theory to examine communication public goods (see for example Monge, Fulk et al. 1998). Third, recent work has focused on the role of communication networks in creating and maintaining the public good. (Monge & Conractor 2003, 159–161.)

Public goods theory demonstrates that network connectedness influences those who contribute for the public good. The theory focuses on how to convince people to contribute to the creation and maintenance of public goods so that everyone in the collective will be able to use them. Marwell and Oliver (1993, quoted in Monge & Contractor 2003, 159) describe four components of the processes by which individuals in an organization could be convinced to contribute. They identify features of the good, characteristics of the individuals, characteristics of the organization and the action process itself. To sum up these four components shortly: people who are resource-rich, who have significant interest in seeing the good realized and who have extensive ties to others who have similar interests and resources are the ideal targets for communication campaigns by people who wish to mobilize collective goods. (Monge & Contractor 2003.)

An important tie between self-interest theories and mutual interest or collective action theories arises in the case of communication dilemmas. These occur when contributing to the collective good is at odds with self-interest, as may occur in contributing to a shared database. The resolution to communication dilemmas is a public goods transformation that aligns individual interests with collective ones. (Monge & Contractor 2003.)

3.7.2 Theories of social exchange and dependency

Extensive research has been conducted to explain the emergence of networks based on exchange and dependency theories (Monge & Contractor 2003). Theories of social exchange suggest that individuals and organizations forge ties by exchanging material or information resources. At its original form the theory sought to explain the likelihood of dyadic relationships based on the supply and demand of resources that each member of the network had to offer (see for example Homans 1974). This theory developed into what is now called network exchange theory, which posits that “the bargaining power of individuals is a function of the extent to which they are vulnerable to exclusion from communication and other exchanges within the network”. (Willer and Skvoretz 1997, 211.) In other words, this means that individuals form network links on the basis of their analysis of the relative costs and returns in exchanging their investments with others. It should be noted that this is in contrast with self-interest theories where individuals seek to maximize their individual investments independent of its exchange value.

3.7.3 Interpretations for the present research

With public goods, the rational and optimal individual decision is to enjoy the public good without contributing anything to its creation or maintenance and to simply ride free on the efforts of the others. However, if everyone were to act rationally and decide not to contribute, then the good would never be created and everyone would be worse off. (Teigland & Wasko 2004.) Networks of practice are a type of collective in which the knowledge created and shared is the collective’s public good. As discussed earlier, participation in such networks is voluntary. Participation typically results in the creation of a knowledge repository of archived messages that is available to all individuals regardless of their original participation. This begs to question: why would anyone invest their valuable time and effort in helping others in a network of practice, if it may be in their better interest not to do so?

Teigland and Wasko (2004) studied this very question in their research of reasons for participating in a network of practice at Cap Gemini. They came to the conclusion that people who participate in and help others in networks of practice are not acting irrationally. Rather, these people choose to participate in order to “gain exposure to critical new ideas and to access help and advice unavailable locally” (Teigland & Wasko 2004, 239). In addition, another key dynamic underlying knowledge sharing in the network is a strong norm of reciprocity. Individual participation is sustained by a strong sense of paying back the network by helping others in return. Another key motivation to participation relates to identification with the organization or a sense of organizational citizenship. (Teigland & Wasko 2004.)

Indeed, a great number of research shows that many inter and intra-organizational networks are maintained and created on the basis of exchange mechanisms (Monge & Contractor 2003). Further, as people or organizations find their exchanges no longer rewarding or as new or competitive others emerge offering better exchanges linkages begin to dissolve. This obviously creates challenges for the network coordinator. Thus, exchange and dependency theories have been more extensively deployed in the study of inter-organizational networks than on the intra-organizational ones. (Monge & Contractor 2003.) This, however, does not make such theories unusable in this context.

The complex dynamics of a network of practice demand a lot of the facilitators of such networks as those of the present research. Issues to be discussed around the facilitation of such networks are numerous. Thus, in the next section some key issues to be considered will be taken up from the managerial point of view.

3.8 Managerial implications

According to Fontaine and Millen (2004), researchers who have worked with networks of practice have long believed that they increase the level and flow of information within an organization. How to package and measure this belief to convince senior management that actual value is being attained is a struggle. The intangible nature of sharing knowledge is often difficult, if not impossible to quantify. To address this issue, Fontaine and Millen (2004, 5) interviewed and analyzed seven networks and compiled the following list of community benefits that are measurable to some extent.

- *“Ability to execute corporate strategy*
- *Innovation*
- *Ability to foresee emerging possibilities in the business*
- *Job satisfaction*
- *Coordination and synergy*
- *Learning and development*
- *Collaboration*
- *Problem solving ability*
- *Employee retention*
- *Productivity or time savings*
- *Empowerment*
- *Quality of advice*
- *Idea creation*
- *Risk management*
- *Identification and access to experts and knowledge*
- *Trust between employees”*

Supporting networked expertise through networks of practice stimulates the mixture of operational and professional knowledge. Supporting such networked expertise throughout the organization can also bridge the gap between different sub-cultures and serve as a carrier to exchange and disseminate knowledge. Networks of practice provide the social structure in an organization for an interactive approach to sharing knowledge. (de Laat & Broer 2004.) This way, networks of practice make a valuable contribution to the professional organization.

While networks of practice often are voluntary in nature, organizations can provide these groups with resources and tools to make them more effective. Often networks of practice within organizations have a coordinator or a facilitator of some sort. This person can be elected by the group or appointed from outside the network. The coordinator usually is an active member of the network. Lesser and Fontaine (2004, 20–22) provide five general guidelines for organizations and network coordinators on how to support networks of practice in organizational contexts.

1. *"The organization should provide a central place where individuals new to the organization or discipline can quickly find others.*
2. *Directory of network participants with key skills and interests should be maintained.*
3. *Submissions to a repository should be evaluated to ensure that the explicit knowledge base is current and contains relevant material for practitioners.*
4. *An environment where practitioners feel comfortable to test ideas without fear of ridicule or misappropriation should be fostered.*
5. *Communication and recognition should be used to increase visibility of member contributions and reuse."*

The networks examined in the present research are geographically distributed which adds complexity to the network coordination, or facilitation, as it may be called as well. The core of facilitation is to serve the network and assist it in reaching its goals or purpose. Some describe this role with metaphors such as a gardener, a conductor, a teacher, or an innkeeper. According to White (2004), much of the challenge in fostering a distributed network is social rather than technical. The clearer the purpose of the network, the easier it is to craft the facilitation approach. Purpose provides participants and facilitators expectations upon which they can base their actions. Facilitators foster member interaction, provide stimulating material for conversations and help hold the members accountable to the stated network guidelines, rules or norms. They pass on network history and rituals. Perhaps more importantly, the facilitator often helps the network members do these things for themselves. Without someone taking on these responsibilities, it is easy to get sidetracked or disrupted. (White 2004.)

Networks of practice share and build knowledge around a practice. Part of this process is being a group, having identity and reputation, being able to have agreements and some sense of accountability to the group. Facilitating distributedly working networks of practice can focus on some of these sociability and relationship issues. This includes helping members get to know each other, articulating and making visible agreements, and watching as well as nurturing group dynamics. The key skills for a facilitator in such a network include group facilitation and knowledge management.

Facilitator approaches depend on the nature of the network. Some networks, such as conversational networks, need a very low-key facilitator. Some need very clear and rapid responses, or distinct leadership qualities. Others need facilitators to help raise the overall skill level of the network to facilitate itself. In general, White (2004, 28) defines four frameworks for facilitation of geographically distributed networks. The facilitator has to:

1. *"Have understanding of group facilitation as it occurs face to face and online.*
2. *Have knowledge about design. Ideally, the facilitator is involved in the conceptualization, design and implementation of the online space to ensure that group member needs are accounted for. The facilitator usually also participates in pre-assessment and planning.*
3. *Have full understanding of the group's purpose and convey it clearly to group members.*
4. *Be prepared with tools and processes."*

Facilitators use their group facilitation skills to enable the group to meet its goals. This involves group processes which include as summarized by White (2004):

- *"Entry and engagement processes which help members become active participants*
- *Anticipate and work with conflict and abrasion to allow emergence of new ideas*
- *Supporting sociability, relationship and trust building*
- *Work with full understanding of diversity in learning style, culture and personal styles*
- *Constructing, adapting and modeling norms, agreements and accountability*

- *Understand and make visible group participation cycles and rituals in the online environment.*
- *Support discussion and dialog (foster communication)*
- *Summarize, harvest, weave and support appropriate content and connections*
- *Support divergent, convergent and task-oriented group processes (help get work done)*
- *Provide basic help as needed with the tools"*

According to Bourhis et al. (2005, 33) relying on the facilitator or leader alone to ensure the success of a network of practice may be risky. Facilitators are sometimes inexperienced in their role, and even the most enthusiastic ones may need advice. Bourhis et al. (2005) found in their studies that having a neutral third party working closely with the facilitators to advice them played a crucial role in the success of networks of practice. The results also showed that the facilitator has an important influence on the success of a network of practice, but the decisions regarding the leadership of the network should also be the responsibility of the organization's management team. While a network of practice need space to grow, initial decisions regarding the operational leadership need to be regularly monitored, evaluated and actions taken if the situation is not satisfactory. This is, according to Bourhis et al. (2005), the only way full benefits can be reaped out of intentionally created networks of practice. In the contemporary dispersed and ICT dependent organizations, employees are increasingly expected to manage themselves. Fostering the employee commitment necessary for self-management requires clarifying and communicating the mission of the organization, creating a sense of community and supporting employee development.

The next chapter will focus on the other key theme of the present research: commitment. What implications the special characteristics of the networks have on the commitment of the network members, will be discussed at the end of the next chapter in the light of the theory and research on communities and networks of practice.

4. COMMITMENT IN THE WORKPLACE

Research interest in commitment has been heightened by the perception that people are no longer greatly committed or loyal to their work or organizations, a circumstance for which various reasons have been cited (Cohen 2003). Morrow (1993) argues that the corporate world has not met its obligations toward its employees. Business leaders have been all too willing to dismiss employees, reduce employee hours and find other ways to cut employee compensation. Another possible explanation is that societal values are changing and the present labor force values work less than did the previous generation.

However, the recent direction of development in the business world does not make commitment an outdated construct. Meyer and Allen (1997, 5–6) give three reasons that support this notion. First, organizations are not disappearing. They may be becoming leaner, but still the people in the organization are the essential building blocks of the company. The jobs inside the organization are changing. Bridges (1994) argues, that jobs as a fixed collection of tasks and responsibilities are disappearing and being replaced by roles that require a wider variety of skills and a greater ability to adapt to different situations. When management is reduced and organizational structures flattened, employees are being given more responsibility for their own job. (Meyer and Allen 1997, 5.) This is why it is more important than ever to trust the employee for doing the job, something that commitment ensures.

Second, even if organizations outsource work to other companies, they still are concerned about the commitment of these others because the organization's own success usually depends on them. Third, Meyer and Allen (1997) argue that commitment develops naturally. There is reason to believe that people have a need to become committed to something; the opposite of commitment being alienation. If the employees are less committed to the organization their commitment may be directed to other areas, such as the profession or career. This inevitably has implications to the organization. (Meyer and Allen 1997, 5.) A fourth and a very important addition in this context, to Meyer and Allen's (1997) arguments is the one stated by Cohen (2003). He argues that the renewed interest in examining commitment is based on the growth in team based management methods. The expanding use of these means, such as self-managed work teams and quality circles, is another justification in continuing interest in commitment forms. Work group commitment could conceivably evolve into a universal form of work commitment.

Commitment has been defined and measured in many different ways and is regarded as a multidimensional construct. The multiple faces of the concept give a good background to examine various aspects that are in relation to the work in the teams. What is common to the various definitions of organizational commitment is summarized in Meyer and Allen's (1991, 67) view, where commitment is seen as a psychological state that characterizes the employee's relationship with the organization and has implications for the decision to continue with the organization. Another, but still somewhat similar definition is by Morrow (1993, 29), who defines commitment as an attitude that reflects feelings like attachment, identification or loyalty to the object committed. A person can become committed to an organization through identification with the organization (an intrinsic motivation) or because of the resources the organization has to offer (an extrinsic motivation). Lack of commitment in the context of work, is cited as an explanation for employee absenteeism, turnover, reduced effort expenditure, job dissatisfaction and unwillingness to relocate (Morrow 1993).

In everyday use, the meaning of the term commitment and related terms, such as allegiance, loyalty and attachment, can vary even more than in the academic literature. Given the flexibility with which the term is used, it is not surprising, that opinions differ whether it is good or bad, stable or in decline. From a scientific standpoint, commitment cannot be studied before the construct is properly defined. Meyer and Allen (1997, 12) provide a sample of the various definitions for the term that have been offered over the years with some recent definitions added.

Table 4. Definitions for commitment.

DEFINITIONS FOR COMMITMENT		
Affective orientation	**Cost based orientation**	**Obligation or moral responsibility**
The process by which the goals of the organization and those of the individual become increasingly integrated or congruent (Hall, Schneider & Nygren 1970).	Commitment comes into being, when a person, by making a side bet, links extraneous interests with a consistent line of activity (Becker 1960.)	Commitment behaviors are socially accepted behaviors that exceed formal and/or normative expectations relevant to the object of commitment (Wiener & Gechman 1977).
The relative strength of an individual's identification with and involvement in a particular organization (Mowday, Porter & Steers 1982).	Profit associated with continued participation and "cost" associated with leaving (Kanter 1968).	The committed employee considers it morally right to stay in the company, regardless of how much status enhancement or satisfaction the firm gives him/her over the years (Marsh & Mannari 1977).
Desire of group members to work together to complete a task to the satisfaction of the entire group (Seiler & Beall 1999).	A structural phenomenon which occurs as a result of individual-organizational transactions and alterations in side bets or investments over time (Hrebiniak & Alutto 1972).	The totality of internalized normative pressures to act in a way which meets organizational goals and interests (Wiener 1982).

Besides commitment, several neighboring concepts exist, such as identification and motivation, through which it would be interesting to examine networks in a contemporary company. This research concentrates on commitment, but touches these topics to some extent as well. Identification and motivation would be good starting points for follow-up research, but cannot be covered in the present thesis.

From an organization's point of view, having a committed workforce clearly appears to be an advantage. Randall (1987) suggests that there is a downside to it as well: Blind commitment to an organization can lead employees to accept a status quo and the company might lose its ability to innovate and adapt to change. In that case the cost of too much commitment is too great: organizations cannot afford to guarantee employment. (Meyer and Allen 1997, 3.) According to Meyer and Allen (1997), being committed to an organization might lead to expenditure of time and energy from other aspects of life, such as family or hobbies. In addition, those who are very committed to an organization might be less concerned to develop knowledge and skills that would keep them marketable outside the organization. Still, there are clear benefits deriving from commitment for employees. Why else would people become committed to their organizations and work? Organizations provide jobs to occupy time and money to pay bills, but these factors do not create commitment on their own. Other things that organizations provide to their employees, such as opportunity to challenging work and to meet and interact with people, learn new skills and develop as a person lead to the development of commitment. (Meyer and Allen 1997, 3.)

It seems that commitment to an organization has two faces. To make a judgment about the benefits and costs of commitment, it is important to know how strong the connection between the employees' commitment and their willingness to go beyond the limit for the organization or blindly follow the organization. It is important also to understand what contributes to the development of commitment from the employee's perspective. (Meyer and Allen 1997, 4.)

4.1 Commitment and organizational control

In the contemporary organization, the issue of how to get employees to work hard is no less a problem than it was at the dawn of the industrial age. According to Meyer and Allen (1997), the main difference is that in the early 21st century methods of control have become much more sophisticated. Where direct control through close supervision was once the norm, corporations now employ more sophisticated systems of control to gain the commitment of their employees.

Some form of control is necessary for effective organizational functioning. Pragmatically, control implies something that an individual must or must not do and it suggests restrictive measures relating to choice or freedom. Control systems help managers to achieve consistency in the activities of the organization. This is important so that the behaviors and activities of the members of the organization match the organization's plans and goals. (Adami 1999, 131–133.) The role of commitment in organizational control is important in the context of the present research. The issue of control is especially interesting to look at in the present research as the participation in the network activities is voluntary. The issue of control also becomes more complicated when people do not work in the same location. Lincoln and Kallenberg (1990, 23) summarize the role of control in commitment as follows:

> *"When an organization finds the means to elicit the commitment of its members, it has at its disposal a very powerful mechanism of control. Indeed the new interest in organizational commitment appears to stem from the realization that the problem of control in organizations is in large measure solved when the commitment of its members is high."*

One of the most difficult tasks for a manager is to determine the extent of control or the amount of autonomy to be imposed on the members of the organization. Furthermore, it has been suggested that some organizations are less flexible than others because some organizational activities are tied to rules and controls. (Adami 1999.) There are several types of control, some of which are overt and others that are covert and may not even be recognized as controls. Direct controls include direct supervision over those performing tasks, quality control, designation of authorization responsibilities, standard operating procedures and other rules. Indirect controls include job descriptions, culture, performance appraisals, career advancement, incentives, compensation, training and skills development, and the existence of flexible work arrangements. In the context of the present research almost solely the indirect forms of control are relevant, as the network coordinators have little possibility to impose direct control to the network members. Three different types of organizational control, behavior, output, and input controls are introduced in the following paragraphs.

Behavior controls are appropriate within a bureaucratic framework, where controls, rules and procedures are imposed top down and supervisors monitor the performance of employees. Behavioral controls may be appropriate when the desired behaviors and outcomes can be easily defined. (Adami 1999.) Ouchi (1977) stated that the more complex and unanalyzable the task, output control, rather than behavior control is appropriate. Complex tasks require the employee to apply his or her skills, expertise and professional standards to identify, coordinate and use resources appropriately to accomplish tasks. Ouchi (1977) continues that this is typical for journalists and engineers, for example, and therefore this characterization can be applied to the network members examined in this research as well. By the nature of their specialized training and tasks, these employees have the capacity to search, judge, and choose directions in the course of problem solving. This passes the responsibility of the outcome to the employee and implies that the employee must be aware of and committed to the organization’s values and norms. According to Adami (1999) output control has the potential for providing employees discretion to exercise judgment and be creative. However, this can backfire on the organization as output control passes much of the responsibility to the employee and the employee may be reluctant to take risky decisions, preferring to take safe options. This again, highlights the role of organization culture and commitment in guiding behaviors.

Input controls include such processes as recruitment, development and socialization, which are forms of managerial control. The most important of these in the context of the present research is social control. Social controls derive from mutual commitments of members of a group to each other and the shared ideals of members (Dalton and Lawrence 1971, 13). Group norms develop from this commitment and are represented as the accepted values and attitudes about standards of performance, relationships, and codes of behavior.

Some combination of behavior, output, and social controls is present in most organizations. According to Adami (1999, 137), organizations relying on experienced and professional employees to complete complex tasks are most likely to have a balance of output and social controls as well as little of behavior controls, because these help to develop the individuals to work effectively and encourage employees to use their initiative in selecting and using the most appropriate resources to accomplish tasks. Consequently, when selecting the appropriate controls, a manager should consider the type of work the employee is doing, the characteristics of the individual doing the work (e.g. professional, inexperienced, etc.), the degree of socialization into the profession and to the organization, as well as the internal systems of the organization (e.g. direct or indirect forms of control).

When discussing the role of control in commitment the issue of autonomy inevitably comes up. Professional status and experience legitimates the claim for autonomy. Moreover, Adami (1999) states that autonomy is said to be important for creative work. It stands to reason that employees who are professionals in their field, socialized in the ways of their profession and the organization, who rely upon for their specialized knowledge, and whose work is self-contained can well work in non-co-located groups, in which less control and more autonomy is exhibited. As stated earlier, organizations need to have some control over their employees, but the amount and type of control vary from employee to another. Balancing control and autonomy is important especially in groups working in different locations. Figure 6 shows the location versus professional status related to control strength.

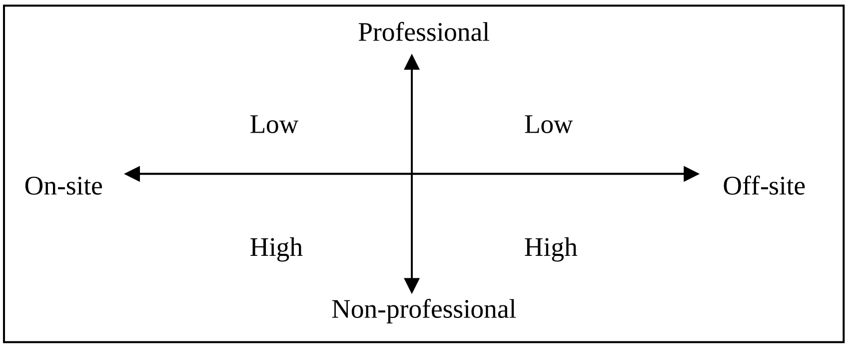

Figure 5. Location-status-organizational control strength diagram. (Adami 1999, 137.)

4.2 Commitment classifications

According to Meyer and Allen (1997) recent efforts show that research on commitment has taken two distinct directions. The first one states that commitment can take different forms. The nature of commitment that defines the relationship between an employee and an organization can vary. The second involves efforts to distinguish among the entities to which an employee becomes committed. These two directions are not incompatible: a combination of these help to clarify the concept of commitment, its development and implications to individuals and organizations.

Perhaps the most long-standing classification of commitment is the classification to attitudinal and behavioral commitment. This traditional distinction has had implications not only for the definition and measurement of commitment but also for the approaches taken in the study of its development and consequences. Mowday, Porter and Steers (1982, 26) describe these two approaches as follows:

> *"Attitudinal commitment focuses on the process by which people come to think about their relationship with the organization. In many ways it can be thought of as a mind set in which individuals consider the extent to which their own values and goals are congruent with those of the organization. Behavioral commitment, on the other hand, relates to the process by which individuals become locked into a certain organization and how they deal with this problem..."*

Meyer and Allen (1997) state that the study of attitudinal commitment has typically involved the measurement of commitment along with other variables presumed to be the antecedent to or consequences of commitment. This kind of research allows establishing possible causalities with relevant variables related to one another. In the behavioral approach, employees are viewed as becoming committed to a particular course of action, such as maintaining employment with an organization, rather than to an organization. The objective of this kind of research is to discover the conditions under which an individual becomes committed to a course of action. (Meyer and Allen 1997, 9.)

Table 4 shows commitment is a multi-faceted construct. Fortunately, the picture is not as confusing as it appears. Meyer and Allen (1991) note that the various definitions reflect three themes as indicated in Table 4. Commitment has been viewed as reflecting an affective orientation towards the organization, recognition of costs associated with leaving the organization, and a moral obligation to remain with the organization. Based on this, Meyer and Allen proposed a three-component conceptualization of the commitment construct. Meyer and Allen (1991) divide the types of organizational commitment into three: affective, continuance and normative commitment.
Affective commitment refers to the employee’s attachment to, identification with and involvement in the organization. It is the emotional attachment a person feels for the organization because they see their goals and values to be congruent with that of the organization. Employees with strong affective commitment continue employment because they want to do so. Continuance commitment refers to an awareness of the costs associated with leaving the organization. The employees need to stay with the organization based on the costs of leaving or a sense that available comparable alternatives are limited. Employees, whose primary link to the organization is based on continuance commitment, remain because they need to do so. Normative commitment reflects a desire to stay with an organization based on a sense of duty, loyalty or moral obligation. Employees with a high level of normative commitment feel that they ought to remain with the organization. (Meyer & Allen 1991).

It is worth noticing that affective, continuance and normative commitment should be considered as components, rather than types of commitment as an employee's relationship with an organization might reflect all three in varying degrees (Meyer & Allen 1997). Consequently, researchers stand to gain a clearer understanding of an employee's relationship with an organization by considering the strength of all three forms of commitment together than by trying to classify it as being of a particular type. Common to all conceptualizations of commitment is the notion that commitment binds an individual to the organization. Indeed, interest in organizational commitment derives from the belief that it was related to employee turnover. Meyer and Allen (1991) note, however, that focusing only on turnover as a consequence of commitment is shortsighted. Just as important as the employees staying with the organization is what they do on the job every day.

This approach derives from an effort to identify commonalities or themes in existing definitions of commitment. In addition to this, there are other approaches. Much like Meyer and Allen, O'Reilly et al. (1991) argue that commitment reflects a psychological bond that ties the employee to the organization but that the nature of the bond can differ. According to O'Reilly et al. (O'Reilly & Chatman 1986, quoted in Meyer & Allen 1997, 14.), the bond between an employee and an organization can take three distinct forms: compliance, identification and internalization.

> *"Compliance occurs, when attitudes and behaviors are adopted not because of shared beliefs, but simply to gain specific rewards. In this case, public and private attitudes may differ. Identification … occurs when an individual accepts influence to establish or maintain a satisfying relationship; that is, an individual may feel proud to be a part of a group, respecting its values and accomplishments without adopting them as his or her own. Internalization occurs when influence is accepted because the induced attitudes and behavior are congruent with one's own values; that is, the values of the individual and the group are the same."*

O'Reilly and Chatman (1991) propose that an employee's psychological attachment to an organization can reflect varying combinations of these three foundations. Consequently, the behavioral actions of the various forms of commitment can be quite different. (Meyer, & Allen 1997.) O'Reilly's multidimensional approach to commitment has served researchers well, even if weakened by the difficulty of distinguishing between identification and internalization (O'Reilly et al.1991). In fact, in their later research O'Reilly and colleagues combined the identification and internalization items to form a measure of what they call normative commitment, which corresponds more closely to Meyer and Allen's (1991) affective commitment. It has also been questioned whether compliance is commitment at all. Not only is it distinct from other common definitions of commitment (see Table 4), but it can also be considered the antithesis of commitment (Meyer & Allen 1997). Compliance has also been found to correlate positively with employee turnover, whereas commitment is generally assumed to reduce turnover (Mowday & al, 1982).

Cohen (2003) proposes a more integrated approach to work commitment, which he calls a multidimensional approach to commitment. The idea behind this approach is that people in the workplace are exposed to more that one commitment at a time. Therefore, their behavior is affected by several commitments simultaneously. For some, commitment to the organization may be the most important; for others, it may be commitment to the occupation and for others still it may be both. In each case the resulting behavior may differ according to the magnitude of the effects of a given set of commitments. Consequently, different commitment constructs should be conceptually and empirically distinguished to recognize that employees are committed simultaneously to different constituencies. (Cohen 2003.) According to Cohen, new questions arise as a result of such an approach, for example, what are the relevant commitment types employees are exposed to at the workplace? How do they differ? How are they related, and which given set of commitments is related to a given outcome?

Motivation and commitment often are inseparable. Scholl (2003) notes that it is important that each of these behaviors mentioned in the previous paragraphs can be explained from a traditional motivational perspective as well. For example, many people might work hard to ensure that the organization’s mission is realized, not because of any dedication to the organization itself, but because they have identified with that particular social mission. In this case, a distinction between commitment to organization and commitment to a profession has to be made. Likewise, long-term membership can be explained in terms of a continued positive exchange with the organization. In other words, the employee remains satisfied with his or her job and the inducements and contributions in balance. It is what happens when employees become less than satisfied, or potentially better opportunities come along, but they continue to remain with the organization that is not easily explained by traditional motivational theories. Loyalty is more than maintaining a relationship. It is maintaining a relationship despite some degree of dissatisfaction with one’s benefits from that relationship or the existence of better opportunities. (Scholl 2003.)

To sum up, the growing consensus among commitment theorists and researchers is that commitment is a multidimensional construct. There is less agreement on what the different components of commitment are. In the following sections, various commitment types are divided into three categories according to Cohen’s (2003) classification in order to clarify the essential characteristics of the concept.

4.2.1 Occupational, professional and career commitment

Occupational and professional commitment focuses on the employee’s profession, occupation and career. Morrow (1991) emphasize the importance of this commitment focus: “It is one of the few commitment concepts that attempt to capture the notion of devotion to a craft, occupation or profession apart from any specific work environment, over an extended period of time.” (1991, 490.) Career, profession and occupation represent different entities. Yet, all three concepts share some characteristics: they are all more specific than work in general and have broader referents than job and organization and they all capture the notion of the importance of one’s occupation. (Cohen

2003.) Consequently, the terms are used somewhat interchangeably in the commitment literature.

Conceptually, occupational, professional, and career commitment have two main approaches. The first is based on the concept of professionalism: the extent to which employees identify with their profession and endorse its values. Another approach to commitment arises from the notion of career: the degree of centrality of career for one's identity or the magnitude of one's motivation to work in a chosen career (Cohen 2003, 25). Carson and Bedeian (1994) conceptualized career commitment as one's motivation to work at a chosen occupation. They see career commitment as a multidimensional construct of three components: career identity, career planning and career resilience. Blau (2001, 282) defined occupational commitment as one's attitude, including affect, belief and behavioral intention to one's occupation.

The question is, which of these terms best describe commitment and should be used in the context of the present research? Because interest in assessing commitment in the present research is on a particular line of work, the term occupation seems like most appropriate. This rests on the belief that professionals and non-professionals can both experience commitment to the work they do. Profession should only be applied to vocations that are consistently high on characteristics on professionalism (Cohen 2003). To date, the communication profession has not yet had such strong characteristics despite the professionalism tendency of the field. In addition, the members of the case groups are not all formally educated in communication studies and many of them have background from different fields of work. However, as the networks center on the network members' profession, professional commitment is applicable as well. In the context of the present research, career is not the best applicable term as it can be defined as planned pattern of work from entry into the workforce and retirement (Meyer & Allen 1997). Consequently, the terms best suitable for the purposes of the present research are professional and occupational commitment.

4.2.2 Job involvement

Lodhal and Kejner (1965) can well be called the pioneers of job involvement and commitment research. According to them, job involvement is the internalization of values about the goodness of work or the importance of work for the person's worth, which is close to the definition of affective commitment. A job-involved person can be described as one for whom work plays a very important role in life, and who is personally greatly affected by his or her current job situation. The non-job-involved person has more interests elsewhere in life, and the core of his or her self-image and identity are not greatly affected by the current work situation. Consequently, job involvement can be described as an extension to the definitions of professional and career commitment.

Since Lodhal and Kejner's (1965) conceptualization of job involvement, the concept has been defined and conceptualized in two ways: performance-self-esteem contingency and component of self-image. The previous definition can be considered as the extent to which self-esteem is affected by the level of performance. The latter definition describes job involvement as the degree to which people are psychologically identified with their work, or the importance of work in their self-image. (Cohen 2003.) Later on a third way of conceptualizing job involvement has been added: A value orientation to work learned early in the socialization process by Wiener and Gechmann (1977, quoted in Cohen 2003, 29). Kanugo (1982) argued that involvement in a specific job is not the same as involvement in work in general. Consequently, he argued for a reformulation of the involvement construct eliminating the problems of excess meaning. This reformulation conceptually distinguishes job and work involvement as separate concepts.

4.2.3 Group commitment

Group commitment, defined as an individual's identification and sense of cohesiveness with other members of the organization, is one of the new concepts in multiple commitment research (Morrow 1993). Traditional studies in this field have tended to focus on group commitment as an important characteristic of the work group. For example Ellmers et al. (1998) observed that highly committed group members seem to maintain solidarity with their fellow group members when faced with group threat. Ellmers et al. (1998) posited that group commitment is one of the key factors contributing to one's social identity. Ellmers et al. (1998) hold that social identification is primarily used to refer to a feeling of affective commitment to the group.

Randall and Cote (1991) argue that the importance of work group commitment is its enhancement of social involvement, which reinforces the social ties the individual develops with the organization. They analyzed group commitment together with organizational commitment to distinguish these two commitments and to show that group commitment is an independent concept in addition to organizational commitment. Ellmers et al. (1998) also examined group commitment in relation to other forms of commitment as well as work outcomes. They emphasized group commitment, which they termed team oriented commitment, as representing commitment to a common goal and to distinct it from other forms of commitment such as career commitment, which represents more a personal goal than a shared goal of a team.

4.2.4 Networks of practice and commitment

While organizational theorists have long discussed the importance of networks of practice, it is only recently that both scholars and practitioners alike have showed increasing interest in them due to such networks' ability to serve as vital conduits of knowledge flows. (Teigland 2003, 4.) What implications the special characteristics of the networks have on the commitment of the network members in the light of the theory and research on communities and networks of practice? As discussed in chapter 3, the case networks of the present research are not informal emergent groups as networks of practice often are. Rather, they are networks of people who “share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge in this area on an ongoing basis.” (Mitchell 2002, 12.)

It is assumed that the network members, as Cohen (2003) explained, are exposed to more that one commitment at a time. Therefore, their behavior is affected by several commitments simultaneously. For some, commitment to the organization may be the most important; for others, it may be commitment to the occupation or profession and for others still it may be both. In each case the resulting behavior may differ according to the magnitude of the effects of a given set of commitments. The underlying assumption in the context of the case networks of the present research, the members of the networks are presumed to be committed to many directions and influenced by many commitments.

Commitment is especially important in the networks, because participation to them is voluntary. What makes them successful over time is their ability to generate enough excitement, relevance, and value to attract and engage members (Wenger & Snyder 2000; Wenger et al. 2002). Although many factors, such as management support or an urgent problem can inspire the network, nothing can substitute for the network members’ willingness to contribute to the network and the aliveness the network members themselves create. An individual’s motivation to participate in a network of practice and an organization’s willingness to support that network both stem from an expectation that it will deliver a particular value. (Wenger et al. 2002.) Sustaining the delivery of value and ensuring that there is alignment in the expectations of the value to be delivered are therefore fundamental aspects of successful networks of practice.

A combination of theoretical discussion on networks of practice and commitment research results in four factors through which commitment in networks of practice can be reflected:

1. Factors related personal background
2. Factors related to individual attitudes
3. Factors related to work
4. Factors related to organization

The first two factors are related to each individual's personal background, previous experiences and attitudes. The last two factors are related to broader contexts such as the organization and the culture in it. In addition, issues related to work play an important role.

5. RESEARCH POSITION AND METHODS

The purpose of this research was to examine commitment and factors related to it in two distributed networks of internal communication specialists within Nokia. The focus of the study was on intra-organizational level, as the thesis discusses only groups within the organizational boundaries. The research had three main objectives. First, to examine commitment and motivation in distributed work in general; second, to find practical implications in order to enhance the functioning of the networks through examining the role of the network in each network member's work; and third, to develop a measurement based on previous research to measure the above mentioned issues. Commitment was an especially interesting topic in the context of these networks as participation to them was voluntary. In addition, this thesis aimed at taking the research to a more general level through discussing the role and use of networks in organizations in general.

Consequently, the objects of the research can be compressed into the following two research questions:

1. What is the role of the network in the network member's work?
2. What kinds of implications does being a part of the network have on the network members' commitment?

In the present research, both quantitative and qualitative methods were used, the one complementing the other. The quantitative part of the study was designed to bring out the grounds for which issues to examine more closely in the qualitative part. However, the overall approach in this research was qualitative as the results were largely analyzed using qualitative analysis methods. According to Frey et al. (2000), qualitative research emphasizes the importance of looking at variables in the natural setting in which they are found. Interaction between variables was important and detailed data was gathered through open-ended questions that provide direct quotations. The interviewer was therefore an integral part of the investigation.

The research was conducted in three parts. Prior to conducting the actual research, the network coordinators' were interviewed to gather basic data about the networks, their structure, goals and work methods. At the second stage a web-based survey questionnaire was sent by email to the network members to find out answers to what factors play a role in the commitment of the network members. After an initial analysis of the data from the survey, interviews with a selected group were conducted. The respondents had a possibility to volunteer for the interview by submitting their contact information via the questionnaire or by email to the researcher.

According to Frey et al. (2000, 222–223), interviews and questionnaires are often used together in the same study. A summary adapted from Frey et al. (2000, 103) of the relative advantages of questionnaires and interviews from the point of view of the present research is in the table below.

Table 5. A summary of the relative advantages of questionnaires and interviews.

Questionnaires	Interviews
Reach dispersed audiences	Provide greater depth of response.
Minimize potential influence of outside events as everyone receives questionnaires at the same time.	Can clarify questions that respondents do not understand.
Increase respondent's anonymity	Can probe for more information.
Encourage responses from people reluctant to talk in interviewers.	Can be more effective in collecting information on sensitive topics.
Increase accuracy of data because respondents record their own data.	
Computer coded forms can be used for data entry facilitation.	

When researchers conduct interviews after asking people to complete a questionnaire, the aim usually is to learn more from respondents about their questionnaire answers. This was the intent in the present research as with such approach the advantages of both methods could be reached. The most obvious difference between questionnaires and interviews is the communication channel. The first one uses the questionnaire to interact with respondents and the latter one is based on face to face interaction. In other words, using a questionnaire makes the interaction between the researcher and respondent mediated while in interviews the interaction is direct. (Frey et al. 2000, 102.).

In the next sections, the previous research and measures used in organizational commitment research will be introduced. In addition, questionnaires and interviews as research methods will be discussed in the context of the present research. Finally, the approaches for analyzing the data gathered with both methods will be introduced.

5.1 Measuring organizational commitment

This section aims at introducing the grounds from previous research on which the measures of the present research are based. The need for research that examines the measurement of organizational commitment was identified by Mowday et al. (1982, 219), who stated that “Little evidence exists of any systematic or comprehensive efforts to determine the stability, consistency or predictive powers of the various instruments.” In order to make the contents of the measures of the present research transparent a look at how commitment in organizational contexts has been measured in pervious research is in place.

The most commonly used measure for organizational commitment is the Organizational Commitment Questionnaire, OCQ (see Appendix 1) introduced by Porter and Smith (1970, quoted in Cohen 2003). This approach to measuring commitment stresses the affective side of commitment. This scale, also known as the Porter et al. measure, is the most visible measure of affective commitment and it has enjoyed widespread acceptance and use (Cohen 2003). It consists of 15 items reflecting the three dimensions of the definition of commitment as suggested by Porter et al.(1974, quoted in Mowday et al. 1982). These are: a desire to maintain membership with the organization, belief in and acceptance of the values and goals of the organization and willingness to exert effort on behalf of the organization. Mowday et al. (1982) demonstrated the well-proven psychometric properties of this measure; they also noted that the relation between their measure and some attitudinal variables like job satisfaction were too high for an acceptable level of validity.

Despite the existence of alternative conceptualizations for measuring organizational commitment, the OCQ has dominated the literature from early 1970’s onwards and most findings in organizational commitment are based on this measure. However, recently some criticism has arisen regarding Porter et al’s OCQ. Cohen (2003, 20) states that the basic difficulty is that two of the dimensions of commitment in the measure, a strong desire to maintain membership in the organization and a willingness to exert considerable effort on behalf of the organization, overlap with intentions of outcome behaviors, such as withdrawal and performance. The response to the criticism has taken two directions. First, researchers have tended to use a nine-item version of the OCQ rather than the full 15 items to avoid the six problematic negatively phrased items of the measure dealing with withdrawal and performance. A second and equally important direction is a new trend that has started to evolve in the definition and measurement of organizational commitment.

From the point of view that organizational commitment can be better understood as a multidimensional construct Meyer and Allen (1984, quoted in Meyer and Allen 1991) proposed a two-dimensional measure of organizational commitment. The first dimension is termed affective commitment, and as defined in the previous chapter: “positive feelings of identification with, attachment to and involvement in the work organization” (Meyer & Allen 1991, 87). The second, termed as continuance commitment as defined in the previous chapter is “the extent to which employees feel committed to their organization by virtue of the costs that they feel are associated with leaving." (Meyer & Allen 1991, 87.) Later on, the third dimension, normative commitment, defined as the employee's feelings of obligation to remain with the organization, was added (see Appendix 1).

Today, the measure used in most research is Meyer and Allen's (1991) eight-item affective commitment scale and recent research suggests that it is superior to the Porter et al's OCQ scale. Moreover, some literature has argued that affective commitment is the most important component of organizational commitment in for example predicting turnover. (Cohen 2003.) However, accumulated data on affective, normative and continuance commitment scales indicated some problems particularly with normative and continuance commitment scales. Consequently, Meyer and Allen (1997) suggested the use of a six-item revised form of the normative commitment scale (see Appendix 1).

5.1.1 Measures for occupational commitment

The inconsistency in the way occupational commitment has been defined has had implications on the way it has been measured even in the most recent research. Conclusions are hard to draw from diverse research findings knowing the different definitions for commitment and the variety of scales used for measurement. Many of the occupational commitment scales are based on respondents' answers to questions about their attitudes to their profession or involvement in professional activities. Other scales are based on a more defined, focused approach; others are based on the concept of profession, others on career or occupation.

Blau (1993, quoted in Blau 2001) has posited his research on concepts related to career commitment such as occupational and professional commitment and career orientation. He mainly uses the concept of career. The latest version of Blau's 11-item scale (Appendix 1) is a combination of several previous ones and years of research. According to Cohen (2003), Blau's scales seem to be one of the better approaches to measure occupational commitment. Carson and Bedeian (1994) criticized Blau’s (2001) scales and developed a 12-item scale (Appendix 1) meant to overcome some problems in Blau’s measures. However, Blau’s scales have been favored especially in the research of commitment as a multidimensional construct. In more his recent work Blau (2001) adopted the three-dimensional approach to organizational commitment developed by Meyer and Allen (1993) (see Appendix 1).

5.1.2 Measures for job involvement

From the definitions of job involvement in the chapter 1.2.2, it is clearly visible that two scales have dominated the research in the area. Lodhal and Kejner’s (1965) job involvement scale (see Appendix 1) exerted a much similar impact on the relevant literature as Porter et al’s (1974, quoted in Mowday et al. 1982). Based on the definition that job involvement is the degree to which one’s work performance relates to one’s self-esteem, they developed a 20-item attitudinal scale for job involvement. Because Lodhal and Kejner proposed their scale so early on, hundreds of empirical studies have been conducted with their scale.

Kanugo (1982) argued for a reformulation of the concept as according to him, job and work involvement were separate concepts and therefore could not be measured with the existing instrument that Lodhal and Kejner (1965) had used. Kanugo’s scale (see Appendix 1) is considered the most commonly used for job involvement. It was devised to eliminate several specific dimensions of excess meaning in Lodhal and Kejner’s scale. Kanugo’s scales distinguish between job and work involvement and are based on the clearest and most precise conceptualization of the constructs. (Cohen 2003.) According to Cohen (2003, 32) “The job involvement scale clearly identifies the core meaning of the construct as a cognitive state of the individual, is not contaminated by items tapping concepts outside this core meaning, and separates job involvement from antecedents and consequent constructs.” Blau (2001) compared Kanugo’s scale to the one of Lodhal and Kejner concluded that Kanugo’s measure is the superior one. From this perspective, it is natural to include elements of Kanugo’s scale to this research.

5.1.3 Measures for group commitment

The fact that group commitment is a relatively new form in commitment research is the main reason why only few measures of this focus exist (Cohen 2003). However, there are two scales developed for measuring group commitment that can be considered relevant in this context. The first one is that of Randall and Cote’s (1991) and the second one is that of Ellmers et al. (1998) (see Appendix 1 for both scales). The advantage of these scales is that they were tested in research on multiple commitments and have proven psychometric properties. More research is needed to establish one of these scales as appropriate for especially multiple commitment research (Cohen 2003), but some items from the sales seem appropriate to be used in the context of this research.

The questionnaire and interview frame of the present research were constructed on the broad basis which the previous research offers. In the following section, the research methods, questionnaire and interview will be introduced in more detail.

5.2 Questionnaire

Survey research was particularly useful in the present research, as the respondents were geographically distributed. The survey method also was relatively straightforward: questions were asked from the respondents and then answers analyzed. Surveys provide researchers with a convenient method for gathering information about beliefs, attitudes and behaviors of a certain population by asking questions from the representatives of the population. (Frey, 2000, 198.)

Sampling is essential in survey research. In the present research, the questionnaire was sent to all the 24 members of the networks. The questionnaire provided 11 responses. The response rate was therefore 45.8 percent. There is no generally accepted minimum response rate for surveys. An ideal standard according to Frey et al. (2000, 207), however, is 75 %, which is very rarely reached though, especially as studies show that more and more people are reluctant to complete surveys. Studies by academic researchers, still considered reliable and valid, have reached much lower response rates than 75 %. Ranchod and Zhou (2001, 254) point out that questionnaires posted by email usually reach lower response rates than traditional mail surveys. They reported surveys that have reached response rates as low as 6 % compared to the 27 % of traditional mail surveys. However, Frey et al. (2000, 207) state that it is more important that the sample is reasonably representative even if the response rate was much lower than the ideal. The sample of this research was 24 people, which does not enable making statistically and generally applicable conclusions, even with a 100 percent response rate. However, as nearly half of the employees from the target organizations answered, some general conclusions concerning this very group can be made. In addition, it was important to reach as many of the network members as possible to establish a basis for the interviews to be conducted with a selected group, which was a strong reason for conducting the survey.

The web-based questionnaire form was constructed using SPSS Data Entry Builder program. This program allowed the design and formatting of survey forms and then entering, verifying, and managing of the collected data. The link to the questionnaire with a covering letter was sent out by email to the respondents on 1 March 2006. The respondents were asked to fill in the questionnaire by 14 March 2006. A reminder of the survey was sent on 14 March 2006 and the data was extracted from the web server on 16 March 2006. The questionnaire (Appendix 2) had two parts. The first part consisted of the respondents' background information and some practical questions about their views of the network and it's functioning. The whole questionnaire was constructed on the basis of previous research on commitment and with the help of previously constructed commitment measures presented in the next paragraphs and compiled in Appendix 1. This increases the validity and reliability of the questions as they have been used in previous research and considered valid and reliable there.

The statements concerning the network members' work and their views on the network were constructed on the basis of the network coordinators interviews. Questions from Porter's (1974) organizational commitment questionnaire and Meyer and Allen's (1991, 1997) commitment scales (Appendix 1) were used in forming the questions for the first part as these questions have been tested broadly in previous research and considered valid in various contexts. The latter part of the questionnaire was constructed on the basis of the scales previously used for examining commitment, which are adapted according to the purposes of this research.

Based on previous research and commitment measurement scales described in the previous sections (5.1.1 - 5.1.3) a combined scale was constructed to specifically measure commitment in networks of practice. The commitment scale aimed to measure three types of commitment: professional and group commitment as well as job involvement discussed in more detail in the previous sections of this chapter. The scales in the questionnaire were therefore divided into sections according to the commitment type. The first set of statements measured professional commitment and the second set measured group commitment (statements a-d) and job involvement (statements e-h). The professional commitment section was constructed on the basis of several of the scales previously used for measuring professional commitment: career commitment measures of Blau (1993) and Carson and Bedeian (19994) as well as all three of Meyer and Allen's (1993) occupational commitment scales (Appendix 1).

The group commitment and job involvement section was constructed on the basis of job involvement scales of Lodhal and Kejner (1965) and Kanugo (1982) as well as Group commitment measures by Randall and Cote (1991) and Ellmers et al. (1998) (Appendix 1). In the present research the group commitment section was mainly aimed to measure commitment and sense of belonging to the communication function at Nokia, but also commitment to the network. However, as stated earlier the underlying assumption was that the network members would not be strongly committed to the network itself as their actual work lies in the business and their own units. In addition to the closed questions described above, also open-ended questions were used to allow the respondents to use their own words in answering the questions.

The statements in the scales of the present research were valued using a Likert scale. This scale is one type of interval measurement scale that not only categorizes a variable and rank order it along some dimension but also establish distances between each of the adjacent points along the measurement scale. (Frey et al. 2000, 91) This scale is not used in all of the original commitment scales, but it was considered useful in the present research as the use of a scale gives the respondent flexibility in answering the questions. Hirsjärvi et al. (2003) state that the Likert scale measures the extent to which a person agrees or disagrees with the statement. A Likert scale is usually used to measure attitudes, preferences, and subjective reactions, which made it suitable for the present research as well. The statements in the questionnaire were valued from 1 to 5, which is the most common scale. (Hirsjärvi et al. 2003, 189.) Most Likert-type scales include a middle neutral point because sometimes people neither agree or disagree or do not know how they feel. Such middle point was used in the present research as well. However, according to Frey et al. (2000, 91), offering a middle point increases the proportion of respondents who use the middle point category by 10 to 20 % on most issues. Some researchers therefore force respondents to choose whether they disagree or agree, without giving them a neutral opinion. This was not considered necessary in the present research. In the analysis of the data from the survey, the small size of the sample was taken into consideration at all times. The data was analyzed with some simple statistical methods such as comparisons. However, as the survey resulted only in 11 responses the interviews gained more importance.

5.3 Interviews

There are many different established interview methods that can yield useful results. The interview method used in the present research was thematic interview, which is an intermediate form between a structured and an open interview. It is typical for a thematic interview that the topics or themes of the interview are set up before the interview, but there is no fixed form or order for the questions. (Hirsjärvi et al. 2003, 196–197.) The purpose of the interviews in the present research was to deepen the answers gathered from the survey and help open up possible unclear issues that emerged and needed argumentation from the network members themselves. Thematic interviews were appropriate due to their semi-standardized nature. Hirsjärvi et al. (2003) consider thematic interviews suitable for research targeted at emotially sensitive topics, like one’s career and work.

The themes discussed in the interviews were based on the results of the questionnaire. An initial analysis of the data from the questionnaire brought up the following three themes to be examined more closely in one-on-one interviews with the network members:

1. Further examining and clarifying the role of the network in the everyday work of the network members
2. Examining the individual factors related to commitment of the interviewees
3. Further examining the network in relation to the concept of a network of practice

In addition to these three themes that emerged from the survey results, the four factors identified on the basis of combining the theoretical discussion on networks of practice and commitment were covered in the interviews as well. These factors were related to the interviewees’ personal background, individual attitudes, work, and organization. This combination resulted in a thematic interview guide (Appendix 3). The interview was a discussion in which the interview guide was used as guidance. All the themes were touched with each interviewee, but the emphasis between the themes varied according to each interviewee.

The interviews were conducted between 23 March and 13 April, each in a closed meeting room to ensure privacy. The interviews were conducted either in English or in Finnish. First, the intention was to conduct four interviews, but then two more interviewees were invited due to three reasons. On one hand, the response rate (45,8) of the survey demanded more data to be gathered through the interviews, but on the other hand new issues were still brought up in the fourth interview, which in turn demanded more interviews. In addition, the first four interviewees were volunteers and therefore the last two interviewees were picked randomly from each group to balance the sample. Of the six interviewees, three were met personally and three interviewed by telephone. Each interview took approximately 30–45 minutes. The interviews were all recorded and transcribed afterwards and the Finnish transcriptions translated to English.

5.4 Data analysis methods

In this section, the methods for analyzing the data of the present research are introduced. Analyzing qualitative data is not a simple or quick task. Done properly, it is systematic and rigorous, and therefore labor-intensive and time-consuming. Fielding (1993, 169) contends that "Good qualitative analysis is able to document its claim to reflect some of the truth of a phenomenon by reference to systematically gathered data." In contrast Fielding (1993, 169) concludes that, "poor qualitative analysis is anecdotal, unreflective, descriptive without being focused on a coherent line of inquiry." At its heart, good qualitative analysis relies on the skill, vision and integrity of the researcher doing that analysis.

The approach for analyzing the data from the interviews was the framework approach. This approach has been developed specifically for applied qualitative research in which the objectives of the research are typically set in advance and shaped by the information requirements of the organization that subscribed the research. The timescales of applied research tend to be short and there is often a need to link the analysis with quantitative findings. For these reasons, although the framework approach reflects the original accounts and observations of the people studied, it starts deductively from pre-set aims and objectives. (Ritchie & Spencer 1993, 175–177.) The data collection tends to be more structured than would be the norm for much other qualitative research and the analytical process tends to be more explicit and more strongly informed by a priori reasoning. The analysis is designed so that it can be viewed and assessed also by people other than the primary analyst.

Ritchie and Spencer (1993, 177) describe five stages of data analysis in the framework approach in general:

1. Familiarization. Immersion in the raw data, or typically a pragmatic selection from the data by listening to tapes, reading transcripts, studying notes and so on, in order to list key ideas and recurrent themes.
2. Identifying a thematic framework. Identifying all the key issues, concepts, and themes by which the data can be examined and referenced. This is carried out by drawing on a priori issues and questions derived from the aims and objectives of the study as well as issues raised by the respondents themselves and views or experiences that recur in the data. The end product of this stage is a detailed index of the data, which labels the data into manageable chunks for subsequent retrieval and exploration.
3. Indexing. Applying the thematic framework or index systematically to all the data in textual form by annotating the transcripts with numerical codes from the index, usually supported by short text descriptors to elaborate the index heading. Single passages of text can often encompass a large number of different themes, each of which has to be recorded, usually in the margin of the transcript.

4. Charting. Rearranging the data according to the appropriate part of the thematic framework to which they relate, and forming charts. For example, there is likely to be a chart for each key subject area or theme with entries for several respondents. Unlike simple cut and paste methods that group verbatim text, the charts contain distilled summaries of views and experiences.
5. Mapping and interpretation. Using the charts to define concepts, map the nature of phenomena, create typologies and find associations between themes with a view to providing explanations for the findings. The process of mapping and interpretation is influenced by the original research objectives as well as by the themes that have emerged from the data themselves.

The interview material was organized under the previously set themes, which were useful in the data analysis as well. The data analysis process of the interview material followed the five stages of the framework approach. First, the interviews were transcribed to textual format and lists of issues and recurring themes were made. The transcription was not done word for word, but by picking out the most interesting and important points as well as direct quotations. Second, a thematic framework was formed from the pre-arranged data, which largely followed the themes deriving from the results of the survey. The thematic framework was applied to index and chart the data to split it into manageable chucks according to the themes. Finally, the charts were used to find explanations for the research findings and to compare the findings with the research questions.

6. RESULTS

The results from both the questionnaire and the interviews are reported in this chapter. First, the results from the questionnaire are reported question by question. Second, the interview results are reported by theme. Finally, the results are drawn together and a summary with conclusions is presented at the end of this chapter.

6.1 Survey

Five of the respondents were members of network A and six of network B. Consequently, the respondents represent the sample very well. All of the respondents worked full-time in internal communications. Five of the respondents had 1 to 3 and five had 4 to 6 years of experience in internal communications. One respondent had 7 to 10 years of experience in internal communications. Three of the respondents had been with Nokia for 1 to 3 years, three 4 to 6 years, four 7 to 10 year and one over 10 years. Four of the respondents worked alone besides the activities of the network. Five worked in a team with other communications specialists in the same unit and two in a team with other communications specialists from at least one other unit.

6.1.1 The networks in practice

In the table below, a summary of the respondents' views on the network and its functioning in practice is presented. Based on this, several conclusions can be made of the network's role in the network members' work. The respondents' views were quite similar regarding the majority of the statements. There were, however, some points in which the views were more dispersed.

Table 6. A summary of the respondents' views on the network.

6.	**Agree or somewhat agree**	**Neither agree nor disagree**	**Disagree or somewhat disagree**
a) I find participating in the network's activities inspiring	11	0	0
b) I feel that I get a lot out of participating in the network's activities	10	1	0
c) I am sometimes disappointed in the network's activities	3	2	6
d) I feel that the network does not really make a difference in my work	3	0	8
e) The network offers enough support in my work	5	4	2
f) This kind of networks should be used for internal communications work more broadly in Nokia	9	2	0
g) We could do much more with the help of this network	10	1	0
h) I would like this network to be more effectively managed	5	4	2
i) I feel that the communications methods used in this network are effective	4	3	4
j) I feel it is important that this kind of network exists	11	0	0

Above all, there was one statement that all the respondents agreed on: they felt it was important that these networks existed. The respondents also strongly agreed on that such networks should be used more broadly in internal communications at Nokia. There were also other statements in which most of the respondents had concurring views. The respondents felt that participating in the network's activities was inspiring. The network members also felt that they got a lot out of participating in the network activities, even if there was slightly more variation regarding this statement. Despite this positive feedback, the respondents strongly agreed that more could be done with the help of the network.

The responses to the rest of the statements were more varied. The views regarding the statement: “c) I am sometimes disappointed in the network's activities” were quite evenly dispersed through the scale. However, the responses fell slightly more on disagreeing with the statement. The next statement: “d) I feel that the network does not really make a difference in my work” also resulted in varied responses. The majority of the respondents disagreed or somewhat disagreed with the statement, but some respondents did not feel that the network really made a difference in their work. This and the views on the previous statement obviously raised questions on what could be done differently to make the network more useful to its members.

In addition, there was some variation in the responses to the statement “e) The network offers enough support in my work”. This could be explained so that some of the network members did not actually feel that the network’s role was to be supportive in the first place. This became evident when the respondents were asked about the support they would like to receive from the network.

> *“I don't know if I would consider the networks role as actually supportive more as a forum for sharing information, ideas and best practices.”*

Despite this, the respondents emphasized that the network supports the network members’ work. The issue of support will be discussed more detailed in conjunction with the open-ended questions.

Views were varied regarding the statement concerning the effectiveness of the communication methods used in the networks. Some of the respondents agreed that the communication methods were effective at least to some extent, but others felt that they were not, or had a neutral opinion on the statement. The statement concerning the effectiveness of the network management also divided opinions. Almost half of the respondents agreed or somewhat agreed that the network could be more effectively managed. One fifth of the respondents had a neutral opinion on the subject and a few were satisfied with the management. The respondents had commented on the communication and management methods in the open-ended questions where suggestions for changes in the network activities were asked. Three issues emerged in the comments regarding communication and network management: effectivity, quality and interactivity.

> *"Conf calls aren't really the most effective ways to get the network together. I would prefer more often face to face activities."*
>
> *"Get together more often. "*
>
> *"It should to be more effectively managed. Shorter, but more effective meetings. More training."*
>
> *"I am not sure to what degree others in the network utilize each other, but I think it would be nice if we could have closer ties between meetings."*
>
> *"I'd like to emphasize the need for more sophisticated tools (wikis, blogs) in communications as well."*
>
> *"Would be nice to have even more systematic approach to best practices sharing, and developing our skills."*
>
> *"Documentation, collecting good materials/library kind of archive should be in place."*

In an open-ended question, the respondents were asked to describe the purpose of the network in their own words. This question was included in the questionnaire to get an overall picture on whether the network members shared a common comprehension of this. All the respondents mentioned sharing best practices in their responses and there was no distinction between responses from the two networks. Indeed, this seemed to be the most important aspect in participating in the network's activities. Below are some responses that describe typical responses regarding information sharing.

> *"Sharing the best practices and lessons learned, support, benchmarking and dividing the workload with competence group work."*

> *"To share best practices, cooperate on larger communications activities and share information and get to know the colleagues in the wider organization."*

> *"To share information and new ideas, to inspire each other to think in new ways and that way do better and more efficient work."*

> *"Share experiences, networking, giving and receiving."*

The respondents were asked about their views on issues they would like to have support from the network. It already became evident from the statements earlier that the majority of the respondents were quite satisfied with the support they received from the network. Still, there were some differences in the responses, suggesting that the support was not sufficient at all times or that some network members may not require such support offered by the network. One issue stood out in question: the need for support in difficult communication issues, especially change communication. Some typical responses are listed below.

> *"Support in difficult comms issues, change, crisis etc."*

> *"Support in change cases, organizing large events."*

> *"In change cases, manager communications practices, best practices in general."*

Another issue that emerged from the responses to the question regarding the network's support to its members, was the lack of visibility to activities in other units and Corporate Communications or even Nokia level issues. This obviously should have implications on the further development of the networks.

> *"Business issues which will cover more than just my own unit. General issues (strategies etc)."*

> *"In case of the need for some specific competence, I'd like to be able to utilize other network members more - more co-operation in sharing daily tasks and best practices."*

> *"In day to day activities concerning other units, icomms competence development projects e.g. joint lectures or information about courses available, support carrying out a project that the colleague has more experience about."*

Several issues arose from the question in which the network members were asked about their views on what to change or do differently in the network. The responses related to communication and network management were reported earlier with the corresponding statements of the statement set (question number 6). In addition, there were issues that did not fall into any the categories of the statements. An important issue was the network's role in relation to the work done in the network members' own units. The fact that the respondents placed their own unit first and then the network is important from the point of view of participation and commitment.

> *"Sometimes the network activities may seem like extra work whereas they should be considered part of our work."*

> *"We must remember that the main duty we have is the BU communications work; everything else is subordinate to that, however much we ever enjoy of the networking opportunity."*

Yet another important issue arose from the responses. Some respondents suggested that the network could be utilized for cooperation more concretely. This issue was taken up in the interviews as well and will be covered in the in section 6.2 of this chapter as well.

> *"Have more concrete cooperation projects and chances to work together."*

From the basis of the results on the first part of the questionnaire, no significant differences between the two networks could be detected.

6.1.2 Commitment to profession

The second set of statements measured the respondents' professional and occupational commitment. Conceptually, these forms of commitment have two main approaches. The first is based on the concept of professionalism: the extent to which individual members identify with their profession and endorse its values. Another approach to commitment arises from the notion of career: the degree of centrality of career for one's identity or the magnitude of one's motivation to work in a chosen career (Cohen 2003, 25).

Table 7. A summary the respondents' professional and occupational commitment.

10.	**Agree or somewhat agree**	**Neither agree nor disagree**	**Disagree or somewhat disagree**
a) I am proud to be in this line of work	10	1	0
b) I am sometimes disappointed with my career choice in internal communications	5	1	5
c) My line of work is an important part of who I am	7	3	1
d) Given the problems I encounter in this line of work, I sometimes wonder if I get enough out of it	6	3	2
e) I do not spend much time on further education or training myself for this occupation	6	2	3
f) I feel "emotionally attached" to this line of work	7	2	2
g) I do not often think about my personal development in this line of work	4	0	7

All the respondents felt proud about being in their line of work, with only one respondent having a neutral opinion on the statement. This was the only statement in which the respondents had concurring views. The responses in the statement "c) My line of work is an important part of who I am" were also strongly stressed on agreeing with the statement. Only one respondent somewhat disagreed with the statement and three had neutral opinions. The rest of the statements resulted in more varied responses.

The views regarding the statement “b) I am sometimes disappointed with my career choice in internal communications” were quite evenly dispersed through the scale. Some of the respondents were disappointed, whereas some seemed contented about their career. There was some variance in the responses between the networks. The members of the network B seemed to agree more strongly with this statement than the members of the other network. However, as the number of the respondents was quite low, such generalizations should be taken cautiously. The responses were dispersed also in the statement “d) Given the problems I encounter in this line of work, I sometimes wonder if I get enough out of it”. However, the stress on this statement was more on agreeing with it. This is in line with the responses to the statement b.

The statement considering the respondents’ further education and training also resulted in differing answers. The majority of the respondents did not spend much time on further training themselves for their occupation. However, there were some respondents, who obviously were more active in training themselves as they disagreed with the statement. The responses to this statement had only rather insignificant differences between the two networks. In the statement “f) I feel "emotionally attached" to this line of work” the responses were divided quite similarly as in the previous statement. The majority of the respondents agreed with the statement, which implies that most of the members of the networks feel that the network is important to them and their work.

6.1.3 Group commitment and job involvement

The third set of statements measured the respondents’ group commitment (statements a-d) and job involvement (statements e-h). The group commitment statements measured an individual’s identification and sense of cohesiveness with other members of the organization (Morrow 1993).

Table 8. A summary of the respondents' group commitment and job involvement.

11.	**Agree or somewhat agree**	**Neither agree nor diasgree**	**Disagree or somewhat disagree**
a) I feel at home among my colleagues in the network.	8	3	0
b) Being a part of the network makes me feel closer to corporate communications at Nokia	6	1	4
c) I feel like I am a part of the family of communications professionals	3	3	5
d) This network lies close to my heart	2	7	2
e) I am personally involved in my work	10	1	0
f) I am prepared to do additional tasks for the network, when it benefits the network and me.	11	0	0
g) To me, my job is only a small part of who I am	4	3	3
h) I am ambitious about my work	10	0	1

Among these statements, there was one on which the respondents most strongly agreed: "a) I feel at home among my colleagues in the network". The majority of the respondents agreed with the statement with three having neutral opinions. From the responses to the statement b, a conclusion that being a part of the network makes the network members feel closer to corporate communications at Nokia is at least somewhat accurate. Majority of the respondents agreed or had neutral opinions of the statement. However, there was four respondents that somewhat disagreed with the statement.

The responses to the statement "c) I feel like I am a part of the family of communications professionals" concentrated in the middle section of the scale, which indicates that the respondents did not have strong views regarding this statement. The responses to the statement: "d) This network lies close to my heart" were mostly neutral, which was expected as the network was not the main duty of the respondents, but more of "extra curricular activity".

The job involvement statements measured the internalization of values about "the goodness of work or the importance of work for the person's worth". (Lodhal and Kejner 1965, 2435) This means that a job-involved person is described as one for whom work plays an important role in life, and who is personally greatly affected by his or her current job situation. In the statements concerning job involvement the respondents strongly agreed on three of the four statements. All the network members were personally involved in their work and ready to do additional tasks for the network, when it benefited the network and themselves. The network members also strongly agreed on that they were ambitious about their work, though there was one exception in this statement.

The results indicated that the network members were highly involved in their work. Thus, the responses to the statement "g) To me, my job is only a small part of who I am", were slightly more dispersed. Lodhal and Kejner (1965) state, that the non-job-involved person has more interests elsewhere in life, and the core of his or her self-image and identity are not greatly affected by the current work situation. Indeed, the results showed that the network members were highly involved in their work, but still had other interests in life as the responses to the statement g showed.

6.2 Interviews

The themes discussed in the interviews were based on the results of the questionnaire. An initial analysis of the data from the questionnaire brought up the following three themes to be examined more closely in the interviews:

1. Further examining and clarifying the role of the network in the everyday work of the network members
2. Examining the individual factors related to commitment of the interviewees
3. Further examining the network in relation to the concept of a network of practice

In addition to these three themes that emerged from the survey results, the four factors through which commitment in networks of practice can be reflected identified on the basis of the theoretical discussion of this thesis were covered in the interviews as well. These factors were related to personal background, individual attitudes, work and organization.

The approach for analyzing the data from the interviews was the framework approach. As a result of the interviews according to the preliminary set themes for discussion and the framework analysis process three main themes emerged. Each of the themes included one or several sub-themes, which were partly overlapping. The main themes were:

1. The network in the network members’ work
2. Practical issues
3. Participation and commitment

6.2.1 The network in the network members’ work

To be able to examine the network’s role in each network member’s work, the interviewees were asked to describe their work to find factors related to commitment on an individual and personal level. The interviewees were asked to describe their work through naming best and worst aspects as well as biggest challenges in it. All the respondents described similar challenges, which confirm that the network members’ work was quite similar even if they worked in units that could be rather different from each other.

Constant changes in the organization increased the interviewees’ uncertainty about their work and about the organization. The network members were closely involved in communicating these changes in their organizations, which required a thorough understanding of the organization and the employees in it. The interviewees did not seem particularly sensitive to change, but regarded change as a natural part of the organization’s evolution. However, change is always a stress factor, which may reduce commitment.

Additionally, the nature of the network members' work required an ability to look at the change from above.

> *"The biggest challenges are hectic changes and tight-scheduled projects. Unexpected situations arise quickly and reaction time for the changes is really short. The best in this work is of course when you can carry out these projects successfully."*

The interviewees described their work as quite an independent field of work which had both negative and positive sides to it, influencing work motivation in general. Simultaneously as the interviewees felt that they were able to make independent decisions about communications issues in their organization, they sometimes felt they were not able to get all the support they needed for their work. One of the reasons mentioned for this was the fact that often the interviewees took care of the communications in their units alone. These interviewees described that sometimes they would have liked to get more support from other communications specialists in order to influence, convince and reassure their management as well as to test ideas beforehand in difficult communications issues.

> *"The best, and at the same time the worst thing in this work is that this is a very independent field of work. The best in it is that you can influence your own work and plan it quite independently, but at the same time sometimes you are not able to get all the support needed for it."*

Some of the interviewees felt that they were not able to take full advantage of their expertise and knowledge in their work. This obviously increased frustration and decreased work motivation. Often the pace of work and changes in the organization were described being so fast that only reactive communications issues could be handled and there was little time to concentrate on proactive communications. In addition, some of the interviewees felt that they were not able to renew and change the pre-existing communication practices.

> *"When I started in this unit, the icomms practices were in place already. And perhaps that's why it took time for me to get into the*

> *system, because it was hard to apply my own thoughts and knowledge to my work. I haven't been able to really get under the surface of this work and to really consult our management how things could be done. It has been like a scratch on the surface."*

As described above, the respondents' views on the network shared many characteristics, but also differed in some respects. Common to all respondents was that they all felt the network was important in various ways. All the interviewees mentioned support from colleagues and best practices sharing. The network was considered a useful and necessary forum to share experiences.

> *"It is really important for me especially as I am the only one doing comms in my unit. A really great chance to share the joys and sorrows of this work with colleagues that really understand you."*

> *"The network is important to get specific feedback on your work from people who understand the challenges in it."*

> *"Information sharing and best practices sharing in general are important. Hearing about what other people do and getting feedback from your own doings from colleagues. I'd like more best practices sharing. I mean, of course you get information if you ask, but..."*

Most of the interviewees highlighted that maintaining connections with colleagues in the network was one of the most important aspects especially as they mostly worked alone. At the same time, the interviewees felt that the network did not offer them enough at this important front.

> *"It's not a really good network. Does not work for me. I am the only comms person in this area and the network remains a bit distant to me. Everyone is so busy and often unavailable."*

> *"It is extremely important, but could be even more important than it is at the moment. Because we are all doing this work alone, the communications of a single unit, I mean. So, there is no support from peers of the same field of work."*

The interviewees also felt that the network offered them an opportunity for a broader point of view on their work as well as insight to the Nokia level issues.

> *"It's a great opportunity for us doing comms in the units to see the bigger picture. When you are deeply involved in your own business, you are in a kind of silo and can't really see the Nokia perspective. It has been a good way to learn how others do things and get to the bottom of things. Very important from the perspective of exchanging experiences and best practices."*

Most of the interviewees wished, however, that the network would have a more visible and tangible role in their work. Many of the interviewees told they had had high expectations about the network, which did not come true. The interviewees were rather unanimous in that the potential of the network should be better utilized somehow.

> *"I hope that the network could be more significant for me. In the beginning I was thrilled to join the network and to get to know everyone. But so far, I haven't got a clue how the others have organized their communications or any idea of their goals or development areas or change stuff that they do. It would be great to know from the learning point of view."*

> *"We are all living in this same planning cycle, so I am missing discussion of for example common goals of other units as well as Corporate Communications level. Somehow they remain fuzzy. Just some basic things like where we are going and what are the challenges. Usually we are informed of these when things should have been done already."*

> *"The meetings are usually quite long, but when I come out, it's like… well, that was interesting, but what is it in for me? Nothing really relevant for me and my work. I mean this is a great opportunity, or am I just expecting too much?"*

As an example of broader cooperation, the interviewees would have liked more joint activities with communications people from other business units or global functions. Joint training sessions together with other business units' communications people were seen particularly useful, especially when communications related training was rarely arranged in the interviewees' own units. Some of the interviewees had participated in a joint communications training session designed especially for the networks and arranged by the networks' coordinators in 2004. This training was considered useful.

> *We don't really have any joint activities in training for example. It would be really nice to get information about trainings, like if some unit arranges comms training so that I'd maybe get an invitation. There is really no other way to find information on training of my own field other than the network*

> *"The joint training days we had last spring was useful. More things like that and with even more discussions and best practices sharing."*

> *I'd like to be able to share best practices more and maybe doing some project together or something similar. For example the training session arranged together with the other network was useful, when it was possible to compare the differences in how things are done between the two units.*

Some interviewees mentioned that the network could be a good way to share information on what was going on in external communications in Corporate Communications and to hear more broadly about what was going on in the business to be able to include the same topics to internal communications as well.

> *"I would like to have regular updates from the Corporate Comms team on the ongoing activities also in the external comms side. It would be good to have things in sync with ecomms."*

The respondents were asked if they thought there should be more cooperation within the network on planning and executing communications projects together. Others were very positive about expanding the network activities on working together, whereas others did not see benefits in it. The latter ones saw the network as purely an information sharing channel, not an arena of cooperation. In addition, many of the interviewees would have been interested in broader cooperation, but said that there simply was no time for that.

> *"Running this network is a part of the coordinator's work, but not ours. So, it would feel a bit unreasonable that on top of all the work I am doing now, I would be obliged to contribute something to the network as well. On one hand it could be a good thing, but where's the time for that?"*

> *"The network could be used more. Especially to discuss how someone has dealt with change comms or setting up a change intra. Like just concrete best practices sharing. People surely would have enthusiasm for doing projects together, but time is another story. Many of us have the same problems, so doing thing would probably be useful. But still, you'd need to put some extra time to it."*

Some interviewees considered the network as only a basis on which to build their own networks. From this point of view the network is a way to get acquainted with colleagues and for example best practices sharing would be left on each individual's own account.

> *"I think it depends a lot on your own activity as well that how you manage to build your own network. Of course it is more difficult when everyone is at different sites."*

Other interviewees thought exactly the opposite and expected the network coordinator to arrange events and meetings for the network members. However, most of these interviewees were ready to contribute more to the network to make it more interactive. All the interviewees agreed that sharing information on issues concerning the whole organization was important, but unit level execution should be left for the unit communications people, not the network. Interviewees with longer experience from Nokia and communications work in general felt they would not benefit very much from closer cooperation. Interviewees with less experience generally were more interested in more cooperation.

A significant issue brought up by the interviews, was that many of the network members were unaware of what took place in the communications of other units within their organization. This, however, would not prevent the network members from giving input to planning communication together on a general level and creating common standards for communication, because the practical execution would still be left to the unit communications. All in all, this question again demonstrated that the essence of the network was collegial support and best practices sharing that some of the interviewees did not consider satisfactory.

> *"There was this one program that extended throughout the organization, but there was no big enthusiasm to attend those meetings, even if the same issues concern all of us There has been change projects that cross the unit boundaries, but each unit solve their problems by themselves. This is probably due to the fact that at least I don't have a clue of what a certain change means for the other units. You would need to know the business before you can do anything. "*

> *"The network is involved in the coming strategy round, which is a good thing as it concerns us all. Then there was this security campaign that we all needed to take into account. It would be totally dumb if we all do the same things alone when we have existing contacts and we could think these things over together."*

In the interviews, many practical issues related to the networks' communication, coordination and meetings were discussed. The following section will cover these issues.

6.2.2 Practical issues

The interviews raised several issues related to various practical arrangements, such as communication channels, coordination of the network, and meeting arrangements. All the respondents agreed that a good facilitator, someone who arranges meetings and plans the agenda, is essential for the network to function properly. In general, the respondents all felt that the coordination of the network functioned quite well.

> *"An active organizer should definitely be there, who organizes and invites to the meetings and thinks about the agenda. Sometimes networks like this do function by themselves, but from what I've seen, there should always be one active person who puts things forward. It's up to us network members as well, what kind of effort we are willing to make for the network."*

Some interviewees suggested that a rotating responsibility of the network meetings would work, but others absolutely disagreed with this idea. This was due to lack of time and, as stated already in the answers to the previous question, running the network was the coordinator's responsibility, not the member's.

> *"Someone has to have the responsibility for the arrangements or it should rotate. Clear responsibilities anyway. A rotating system might work so that each of us would have the responsibility for the arrangements in turn. It works in many other meetings, so why wouldn't it work in here?"*

> *"A shared responsibility system would not work in my opinion. The network should be managed from Corporate Communications. Things always relate there anyway. If we went through this organization one unit at a time things would have to go through Corporate Communications anyway."*

There were a couple of interviewees who were satisfied with the coordination of the network, but saw a problem in the content of the meetings.

> *"I think the coordination works fine as it is. Rather, the issue is in the content of the meetings."*

Indeed, most of the interviewees took up the content or agenda of the meetings in one way or another. Therefore, all the interviewees were asked to give their point of view on the contents of the meetings.

> *"A fixed agenda would be good. Such that really contains topics that I can learn from. At present, I do not feel that I get a lot out of the meetings. And maybe also Nokia level issues should be better connected in this, though I don't know how."*

> *"Perhaps I'd like to be able to share best practices more and maybe doing some project together or something similar. For example the training session arranged together with the other network was useful, when it was possible to compare the differences in how things are done between the two units. The current content really doesn't make you exited about the meetings."*

As shown in this chapter, most of the interviewees pointed out areas in the contents of the meetings or the agenda that could be improved or done differently. Hardly any of the interviewees, however, offered their input on planning the content of the meetings. This lack of initiative can be reasoned by two points, which do not exclude each other:

1. The network members were too busy to be active in giving input to the network activities even if they thought the network could be more useful if it was more active and the cooperation was extended to new areas
2. The network members saw the network only as the network coordinator's responsibility and were therefore not very active in it. This was due to the fact that, so far, the network activities have been mostly one way information sharing from the coordinator to the network members, who have not been asked to contribute much for the network.

One of the network members pointed this out in the interview:

> *"In all honesty we all have good opportunities to influence the contents of the meetings, if we only wanted to do that. I think the agendas have been ok though."*

Finally, there were comments regarding more practical issues around the meetings.

> *"The agenda for the meetings usually comes up too late."*

> *"All in all, the meeting etiquette and practicalities should be more efficient and the content usually is such that if there's real work to be done, I tend skip the meetings easily if something else comes up."*

Functioning communication methods were very important for the networks as the members were distributed to different sites. The interviewees were asked what they thought about the current communication channels in the network and what their suggestions would be for improving communication. The differences between the two networks were apparent from the answers. The other network (network B) had shorter teleconference meetings monthly with a possibility to attend it at the headquarters to listen to the conference call and see other network members face to face. Longer face to face meetings were held 2 - 3 times per year. The other network (network A) had meetings 2 - 3 times per year and the meetings were arranged face to face at the headquarters to which most of the participants actually traveled from abroad as well. There usually were no participants through teleconference, which made the nature of the meetings very different form the other network. The network members of the network A, that had meetings less often, but face to face seemed more satisfied with the arrangements. The members of the network B, as well as some of the interviewees from the network A, wished for more face to face events.

> *"More regular face to face meetings. Rather face to face meetings than phone or email. Face to face it would be possible to discuss things and share experiences more concretely."*

> *"Face to face meetings should be used in the network."*

The network members were asked what communications methods should be used in addition to face to face meetings. This was rather a difficult question for the interviewees as they could not name any solutions right away. This shows that building communication channels that are personal, easy to use, and provide a possibility for best practices sharing is a very difficult task, in which quick fixes or off-the-shelf solutions do not exist.

> *"I wouldn't use intranet for communication, rather our own team room or something similar. There are emails flooding to my inbox as it is, so no email. It's also difficult to catch the tone of voice from an email, so I'd like to see a more personal channel for communication. What it could be, I don't know."*

> *"We have intranet and other technical tools in place as well as the possibility to participate to the meetings through telcos. The one big problem in my lack of participation is the time. And of course there's the physical distance as well. I don't have the possibility to travel to Nokia House every time and through telco the audibility is not that*

> *good. Sometimes I just get fed up and hang up. I'd like to participate more actively though. I think the network is a valuable thing to get new directions for your work."*

> *"Telco is the main channel now, and of course you can always go to Nokia House, which I've done recently as I got fed up talking on the phone as people don't know the telco etiquette."*

Information storage raised even further discussion. At the time of the study network B had the Internet based Quickplace as their information storage space. Network A did not have a place to store information.

> *"I'd really like us to have doclib, so there would be a place to store stuff. If only people could use it properly… I would like to have a proper directory for the information. I don't miss more online interactivity however, like blogging as there's no time for it."*

> *"I never use quickplace. It's not the content, but rather the technical solution. Also people, who speak in the conference calls, usually come there without any preparation, material or such, so it's very hard to follow the calls on line."*

Most of the interviewees mentioned that lack of time was often the reason that prevented them from participating to the network activities. The next section will concentrate on participation in more detail.

6.2.3 Participation and commitment

The interviewees were asked their views on what would make participation to the network activities more useful or appealing to them. The interviewees could not give any concrete examples of improvement measures. The suggestions were related in both the practical arrangements and contents of the networks' meetings, but were quite contradictory to each other. A common factor in the answers was that there quite clearly was a need for more space to share best practices and more refined facilitation to enhance best practices sharing rather than just share information one-way.

The interviewees mostly agreed on the fact that participation in the network activities should remain voluntary. They agreed that voluntariness might decrease participation in the network activities, but establishing official reporting relations to Corporate Communications would not be the solution. The network members preferred softer, persuasive measures. However, many of the interviewees hoped that networking could be included in their personal plans, though there were interviewees who were against this. These plans set the priority order for the network members' tasks and as the network was considered important, it should be added on the plans.

> *"This should be based on voluntariness. Increasing all sorts of bureaucracy is just not good.*

> *"Of course, if there was resources allocated for this network in everyone's IIP's it would support active participation to the network more, but I think it's up to the organizational culture in the end."*

> *"Networking shouldn't be resourced in our personal plans, because it is just ordinary day to day work and it isn't even measurable as sometimes there's a lot going on and sometimes nothing at all."*

More than establishing reporting relations to keep the networks alive, the interviewees would have liked to see more specified rules for the networks clearly stating what was expected from the network members.

> *"There could be some sort of regularity in the activities or rules in the network, what is expected from us and so on. "*

> *"I'd like to be obliged to really do something for the network, like preparing something for the meetings. I'd like to see clear instructions, like: do this and this by that time. I am sure that people would be happy to contribute knowing that everyone else does the same thing and it benefits us all."*

The network B, which had existed longer, had formed small competence development groups within the network directed at sharing knowledge on certain topics concerning their work. These groups had approximately four members with one nominated as a leader. One person could be a member of several groups. The groups covered topics such as strategy, managerial and

HR communications, and intranet development. The groups usually met through teleconferences and sometimes face to face and used team room, an electronic information storage space and other forms of ICT for discussion on topics of their specific interest. Some of the groups were more active than others depending much on the group leader's activity. Network A did not have such self-organized activity.

> *"I'm in several groups, though not very actively myself and many of the groups are not so active either. I think the groups are a good thing. Maybe there should be some kind of model or structure for them that would make it easier to maintain the groups."*

> *"Often other work is more important than being active in the competence groups. Other groups are very active and function quite well, but in others there's nothing happening really. The HR group works really well. I've heard there have been speakers on the topic from different parts of Nokia, which kind of activity is such that the groups actually should have. Gathering experiences from outside our own work and field. The groups are valuable, but they work in very different ways. There isn't always time for the groups because our primary duty is still to serve the business."*

The fact that shapes the nature of these groups and also both of the networks was that the employees were distributed on different sites.

> *"One thing affecting the participation is that we are all distributed in different sites. It would be much easier to take up and share things face to face."*

The interviews showed that the network members were clearly committed to their work and to their profession. They were eager in finding new ways for the network to operate and some were willing to contribute more to the network. However, the interviews showed that the network members' primary commitment was mainly directed towards their organization, not the network or the profession. The results also indicated high job involvement among the network members, which is the internalization of values about "the goodness of work or the importance of work for the person's worth". (Lodhal and Kejner 1965, 2435). Work played rather a significant role in the network members' life, but they also had other important interests.

All in all, the commitment of the network members to their profession, career or organization, could be defined as being affective in type, which refers to the employee’s attachment to, identification with and involvement in the organization. In other words, it is the emotional attachment a person feels for the organization because they see their goals and values to be congruent with that of the organization. Some individual answers indicated certain frustration towards constant changes in the network member’s own organization. These individuals were more committed towards the profession or their commitment was less affective in type.

6.3 Summary

In this section, the findings from both the questionnaire and the interviews are combined, summarized, and presented with conclusions. In addition, the results are reflected through the two research questions:

1. What is the role of the network in the network member’s work?
2. What kinds of implications does being a part of the network have on the network members’ commitment?

6.3.1 The networks’ role

As organizations grow in size, geographical scope, and complexity, it is increasingly apparent that sponsorship and support of networks of practice can improve organizational performance. (Cohen 2003). Different types of networks and learning communities are used in Nokia as well. As internal communications in Nokia is distributed to units located in every continent, common activities, such as the networks examined in this research, serve as a fundamental basis for their members’ professional identity as well as a facilitator for best practices sharing. Indeed, belonging to the network was important for the network members. Leveraging knowledge through the networks aimed at increasing the members’ individual knowledge and expertise as well as keeping all the units on the same page with communications activities. Ultimately, such cooperation may function as one of the key factors of organizational efficiency.

The purpose of the networks, of which the network members shared a common comprehension, was knowledge and best practices sharing as well as competence development. The work in internal communications was the center of the networks. According to Wenger (1998b), centering on a shared practice is one of the key characteristics of networks of practice. The networks also shared features typical to traditional teams. However, the most important aspects of the networks were the strong presence of learning and best practices sharing in addition with voluntary participation that are typical characteristics in networks of practice. In addition, what distinguished the networks from teams was that a concrete task to perform in the network did not exist. Indeed, networks of practice are usually seen as having wider and less defined objectives. The networks did not have specific schedules or dates for attaining objectives contrary to typical teams and they were also ongoing indeterminately.

Some network members felt they did not get enough of the network activities, which resulted in lack of participation in the network activities. Monge and Contractor (2003) offer theories of self-interest as a way to describe and explain the economies of such contemporary working life. These theories argue that people make what they believe to be rational choices in order to acquire personal benefits. The individual benefits in this case being the advantage of staying up to date of the discipline and develop expertise through best practices sharing as well as being able to work more effectively with the help of the new information from colleagues. Such networks seek to maximize joint value of exchanges with the organizations to which they are linked, which was detected as a fundamental reason for the networks' existence.

Participating to the network activities often meant extra work for the network members on top of everything else, as they had a full work load in their unit's communications. Some network members clearly felt that the gains from the networks' did not compensate the time and energy put into it. An interesting point of view on discussing individual versus group benefits is provided by theories of self interest. In principle, these theories state that people attempt to maximize their gains or minimize their losses. Adapting the public goods theory, the rational choice and optimal individual decision in such a work situation would be to enjoy what the network offers without contributing anything to its creation or maintenance and to simply ride free on the efforts of others. However, if everyone was to act "rationally" and decide not to contribute, then the good would never be created and everyone would be worse off as the network would not work. In time, this would lead to people gradually drifting away from the network and the network slowly dying.

Instead of looking at the networks from an individual's point of view, the networks can be viewed from a collective point of view as well. People accumulate social resources, or social capital, which they invest in social opportunities from which they expect to profit. (Burt, 2001.) The network members, who had a positive view on increasing individual contribution to the network, considered that sharing their knowledge with others would benefit each individual network member in the end as well. Teigland and Wasko (2004) studied this very question in their research of reasons for participating in a network of practice. They came to the conclusion that people who participate in and help others in networks of practice are not acting irrationally. Rather, these people chose to participate in order to "gain exposure to critical new ideas and to access help and advice" that may be available only through the networks (Teigland & Wasko 2004, 239).

To conclude, the network members needed to consider several consequences when deciding whether to participate or not. As the network members were always busy they might not have the time to explore and understand all the individual as well as collective benefits they could reach with the help of the network. Indeed, the network members did not have the time, energy or resources at their disposal to evaluate all possible alternatives. In reality, they chose the first satisfactory or acceptable alternative, rather than explored all alternatives and then selected the best: they satisfied and sufficed rather than maximized.

As stated above and anticipated already based on the results of the survey, the interviews showed that some of the network members were more active in the network than others. This implies that there was a certain periphery of members less engaged in the networks. Also, according to some respondents, the physical separation hampered their ability to truly participate in the network. Some contributed more than others, but as the interviews showed, there was a strong willingness to contribute more. Wenger and Snyder (2000) state that it should be accepted that some people are active in the network and some people appear passive. Contributions and learning takes place in different ways. The evolution of the network requires different activity levels and different kinds of support at different times.

The results from both the survey and the interviews showed that the network members shared a relatively positive view on their participation in the network. Participating in the network's activities was inspiring and they got a lot out of it. The interviews showed that the network's role was slightly different depending on the interviewee. Some interviewees saw the network as merely a forum to get acquainted with other communications people and on which to continue building their own networks. Others were not as active in building their networks themselves, but expected the network to have a more tangible role in keeping up the network relations.

What comes to the issue of periphery in the networks, the location and communication methods of the network had quite an influence on participation. Some of the network members located further away from the head office, saw the network's role being less important and more distant. This was especially true in network B (see Table 1 for descriptions of the networks.), where most of the meetings were held through teleconferences. The interviewees, who were located further away from the head office, did not see as many actual benefits in participating in the network meetings as those located closer to the place where the meetings took place. For some of these people in the network B, the competence group work, where the actual best practices sharing took place, was more important. Consequently, the wider network meetings were not attended as enthusiastically. The members of the network A (see Table 1) truly appreciated the possibility to meet people face to face and that time and effort put into arranging the meetings. In this network, also members from more remote locations from the head office point of view, especially those who worked alone, felt the network was an important forum for best practices sharing. This shows that even if the networks had different methods for arranging their activities, their goals were the same. The members were interested in reciprocal best practices sharing and competence development, not one-way information sharing.

The importance of face to face communication in networks of practice has some interesting implications. The personal relationship was considered essential especially as the networks did not have established e-communication methods apart from network B’s document storage space in the company intranet. One of the most difficult parts of operating in a distributed environment may well be facilitating the evolution of the network and relationship development. The results supported the notion that the possibility for face to face communication is a great advantage in creating trust and confidence within the network members. The evolution of the networks was highly a result of the face to face meetings. The members of the network A, who had meetings less often, but always face to face and usually lasting at least one whole working day, were more satisfied with the meetings than members of the network B, who had shorter meetings monthly, to which most participated through a conference call.

The meetings in network A (see Table 1 for descriptions of the networks.) contained information sharing from Corporate Communications to the network as well as discussions of actual topics through which best practices are shared. In most meetings, a speaker from outside the network was invited to give an outline for the discussions. The meetings in network B were quite short, mostly containing information sharing from Corporate Communications. Best practices sharing and competence development was designed to take place in competence groups of which some were active and some were not functioning at all primarily due to lack of time. Some members of the network B participated only to the competence group work and skipped the wider network meetings, which allows assuming that they did not find the wider network meetings very useful. When comparing the two networks, longer face to face meetings allowed best practices sharing better. If face to face meetings cannot be arranged, alternative ways to maintain the interest of the network members and therefore encourage people to participate should be invented.

Comparing the two approaches in the networks, there are problems in both, even though the underlying idea in both can be functional. In the network A, the problem was that the network gathered only from 2 to 3 times a year for the face to face meetings and the communication concerning the whole network was practically non-existent during other times. In consequence, a lot of topics and issues accumulated to be handled in the meetings, which left little time for best practices sharing. In the network B, the problem was that the monthly teleconference of the wider network had lost its significance according to the network members, as all the best practices sharing took place in the competence groups. In consequence, the wider network meetings were merely information sharing from Corporate Communications to the network members. (See Table 1 for descriptions of the networks.)

While the networks were considered inherently useful, the network members felt the opportunities of the networks were not fully utilized. They were not entirely satisfied with the network activities and had expected more from the network. Some respondents did not see many benefits in participating to the network activities for their individual work. The issues related to the usefulness of the network were centered on two themes: ways of working and contents of the meetings. Some respondents felt the network would have needed more active facilitation and others felt the communications methods in the networks needed re-considering. Some respondents did not see problems in the practicalities, but more in the content.

Many of the network members felt that the lack of commonly agreed rules in the network prevented the network from functioning properly. Some of the interviewees suggested more formal reporting relations to fix these problems related to participation, whereas others absolutely objected this idea. They considered the network would be more active if everyone were obliged to actually contribute something concrete, such as preparing short presentations on different topics or issues they were currently working on. This idea could well be feasible, but instead of increasing bureaucracy, the network members should be encouraged to voluntary contribution. This idea was supported by many of the network members as well.

In conclusion, the networks did not fully utilize their potential. The networks seemed to need space and time as well as tools for best practices sharing. What the ways of working, communications methods and tools will be, should be agreed together, so that every network member can stand behind the decisions made. Indeed, networks of practice evolve throughout their existence. As Wenger et al. (2002) suggest, the networks should be able to negotiate their own enterprise and arise evolve and dissolve according to their own learning. They should shape their own boundaries that may or may not be congruent with organizational boundaries. (Wenger 1998.) Dictating the ways of working from above could have devastating consequences on the network members' motivation to contribute to the network. According to Preece (2004), the changes that occur as networks of practice grow and evolve can be summarized with the following steps:

- People will start to think and act as a community rather than as individuals only.
- Individuals' goals and aspirations will be subsumed in the network's goals.
- Policies that guided the young network are replaced or supplemented by norms and some networks of practice will become self-governing.

Following the thoughts of Kerber and Buono (2004), successful distributed collaboration can be reached by combining several factors. The networks should be active around challenges important to the network members that participants find personally and professionally compelling. Another important aspect is to jointly define and commit to the networks' identity, purpose and processes. These efforts should be facilitated by creating lavish information flow by using various communication methods to overcome distance and time. In addition, these efforts should be tied together through the personal commitment and dedication of the network facilitator. Indeed, commitment to the network and active participation cannot be reached through merely one way communication from Corporate Communications level to the network members, but opportunities for discussion should be fostered. Discussion centered on the practice is vital for the networks in order for them be truly networks of practice. Otherwise, the networks will fade to just one-way channels for information push. The attention for the information from Corporate Communications is likely shrink to a minimum as the network members would consider listening to it a waste of time.

6.3.2 Implications on commitment

As described earlier, the network members often had to weigh carefully on what to spend their scarce time. The time spent on the network meetings was off from something else. This meant that the network meetings and other activities had to be interesting and useful enough, so that the network members would find it worthwhile to put the time and effort in them. Such networks can only survive, if the network members themselves are interested in keeping the network alive. Functioning networks of practice follow the idea of mutual reciprocation: everyone gives and receives. But as pointed out earlier by Teigland and Wasko (2004), the input of the network members does not have to be equal as different people have different kinds of knowledge to share. Voluntariness of participation is the essence of these networks. If the participation was compulsory, it would change the nature of the networks and make them more rigid.

The issue of voluntariness and autonomy inevitably come up when work and commitment of the network members is discussed. The network members were professionals and professional status and experience legitimates the claim for autonomy. Adami (1999) states that autonomy is important for creative work. It stands to reason that the network members' professional status required more autonomy and less control and therefore work in distributed groups would suit them well. This is reasoned, because these people were professionals in their field, socialized in the ways of their profession and the organization, and relied upon for their specialized knowledge, and moreover, whose work was often self-contained. As the networks consisted of professionals to whom the participation to the network activities was voluntary, the interest and commitment to participate and contribute had to be endogenous. Because all networks of practice are voluntary, what makes them successful over time is their ability to generate enough excitement, relevance, and value to attract and engage members (Wenger & Snyder 2000). This indicates that if voluntary contribution to these networks was to be increased, it could happen only through offering the network members content exciting enough to give added value to their networks.

Cohen's (2003) integrated and multidimensional approach to work commitment can be used to describe the "commitment landscape" of the network members. The idea behind Cohen's (2003) approach is that people in the workplace are exposed to more that one commitment at a time. Therefore, their behavior is affected by several commitments simultaneously. For some, commitment to the organization may be the most important; for others, it may be commitment to the occupation and for others it may be both. In each case the resulting behavior may differ according to the magnitude of the effects of a given set of commitments. (Cohen 2003.)

The network members' commitment came forward in different ways. As anticipated, all the network members were first and foremost committed to their own units and their work in them. However, the network was important in the sense that it created a network of communications professionals and therefore affected the network members' commitment towards the group and profession, as well. The network members clearly identified themselves as being part of the network as well as being communications professionals. In general, the respondents felt that their work was an important part of their identity which implied commitment to the profession as well as career and personal development. The network members had quite close personal ties despite the geographical distribution. Being a part of the network also made some of the network members feel closer to Corporate Communications. However, the interviews showed that some of the respondents did not feel they even should have any ties to Corporate Communications as their work is in the units. Most of the respondents had neutral views about the network being close to their heart. This implies that these network members' commitment to the network is more normative in type, based on a sense of duty, loyalty or moral obligation (Meyer & Allen 1991). Another possible explanation to this result may be that the expression in the statement was too strong and therefore resulted in neutral responses.

Some respondents felt disappointed about their career choice in internal communications, which can be related to issues deriving from issues related to work, organization or the individuals' themselves. More than personal issues, organizational issues were reflected also in the network members' thoughts on the problems they face in their work. This was reflected also in the network members' professional or personal fulfillment from their work. Even if some of the network members expressed dissatisfaction towards their organization, they felt that they shared their situation with other network members. It seemed, that the object and intensity of commitment somewhat varies depending on the working situation of the network member. This shows that the network can function as an important support for the network members, even if the network members' primary commitment object was their own unit. This should be exploited more to increase work motivation, especially during hardships in the network members' own units.

Work played quite an important role in the network members' life, but they have also other important interests. All in all, the commitment of the network members to their profession, career or organization, could be defined as being more affective in type, which refers to the employee’s attachment to, identification with and involvement in the organization. In other words, it is the emotional attachment a person feels for the organization because they see their goals and values to be congruent with that of the organization. (Meyer & Allen 1991.) However, the network members were also aware of the costs associated with leaving the organization that indicate the existence of continuance commitment. There was less evidence of normative commitment, which reflects a desire to stay with an organization based on a sense of duty, loyalty or moral obligation (Meyer & Allen 1991).

7. DISCUSSION

"Not so long ago, companies were reinvented by teams. Communities of practice and commitment may reinvent them yet again – if managers learn to cultivate these fertile organizational forms without destroying them"
(Wenger and Snyder 2000, 140.)

Supporting networked expertise through networks of practice stimulates the mixture of operational and professional knowledge vital for the contemporary company. Supporting such networking throughout the organization can bridge the gap between different sub-cultures and serve as a carrier to exchange and disseminate knowledge. (de Laat & Broer 2004.) Such networks, as the ones of the present research can provide a social structure in an organization for an interactive approach to sharing knowledge. This way, these networks can make a valuable contribution to the professional organization. In the contemporary organizations, networks of practice are being recognized as groups within which the sharing of business critical but still soft knowledge may take place. Therefore, it is important that they are supported by the organizations in order to go beyond capturing and storing other than hard and measurable knowledge. In an international business environment this means that knowledge and practices need to be shared in a distributed environment.

Networks of practice offer a form of social structure that can take responsibility for fostering learning, developing competencies and managing knowledge (Hildreth et al. 2000, 36), for which the networks examined in the present research where established for as well. One of main purposes of the networks was establishing a common baseline of knowledge in the network members' expertise area through meetings with information and best practices sharing, competence group work as well as maintaining shared knowledge databases. In such networks of practice, the focus is placed on participation, which has implications on learning. According to Wenger (1998, 7), for individuals this means that learning is an issue of engaging in and contributing to the practices of their networks. For the networks, this means that learning is an issue of refining their practice and ensuring new generations of members. For organizations, this means that learning is an issue of sustaining the interconnected networks of practice through which an organization knows what it knows and becomes effective and valuable as an organization. In his description, Wenger (1998) captures the essence of the role of the networks and the relationship between the network members and the organization.

Investing in networks of practice can create several benefits. They offer the opportunity to increase job satisfaction and work commitment of knowledge workers and eventually, reduce staff turnover (Teigland 2003). Individuals develop greater awareness of their own worth and recognize that, inevitably, they must take responsibility for their own career and future as organizations go through rapid changes. The employees will increasingly add into their own decision-making process more consideration of the opportunity a potential work experience offers to learn and allow them to retain their own market value in the future. Teigland (2003) argues that an organization capable of offering the opportunity to participate in a leading network of practice in the professional knowledge domains for their employees appears particularly attractive. Being a member of such network forms a basis for the network members to stay ahead in the discipline, which results in individual benefits such as the source of future individual "marketability". The pace of change and the rate of development of new knowledge may imply that it has become too difficult for individuals to do this independently.

Although networks of practice develop organically, a carefully crafted design can drive their evolution. Many intentional networks and communities fall apart soon after their initial launch because they do not have enough energy to sustain themselves. Networks, unlike teams and other similar organizational structures, need to invite the interaction, which makes them alive. Amongst the main preconditions mentioned in the literature on communities and networks of practice, as well as much of the literature on teamwork, are the importance of the facilitator, the interest and motivation of the individuals to work together as a group, and support received from the organization.

The support and knowledge exchange between colleagues and the role of the facilitator in the networks of the present research were very important. This indicates that for a distributed intra-organizational network of practice to develop and prosper, the crucial factor may well be the quality and dynamism of facilitation and leadership as the individual superiors of the members are less involved, if at all. Also the professional identity and recognition from peers in the same occupation play an important role. What many facilitators do not realize according to Preece (2004) is that the networks need different kinds of support in different phases. The changes that occur as networks of practice grow and evolve can be summarized in three points. Preece (2004) states that people will start to think and act as a community rather than only as individuals. Gradually also individuals' goals and aspirations will be subsumed in the network's goals. In addition, policies that guided the young network will be replaced or supplemented by norms and some networks of practice will become self-governing. This is something that the network facilitators should be able to support with appropriate of methods.

Learning through best practices sharing was one of the most important aspects in the networks of the present research. According to Wenger and Snyder (2000), practice is also the source of community coherence in such networks. Wenger (1998) describes this relation by dividing the practice as a property of a community into three dimensions: mutual engagement, a joint enterprise and a shared repertoire. It is vital to understand what kind of components the networks are made of and how they relate to each other in order to understand the functioning of such networks and give the networks the facilitation and support they need. If these three factors are not realized in the networks, people are likely to gradually drift away. This is an important notion regarding the managerial contributions of the present research for the networks.

The three dimensions of a network of practice can be interpreted for the context of the present research. Wenger (1998) states that defining a joint enterprise is a process, not a static agreement. It produces relations of accountability beyond fixed constraints or norms. A jointly negotiated enterprise creates mutual engagement, which, however, does not require homogeneity. Therefore, a joint enterprise does not mean agreement in any simple sense: disagreement can be seen as a productive part of the enterprise. Consequently, the enterprise is joint in when it is negotiated together, not in that everybody believes the same thing or agrees with everything. (Wenger 1998.) This means that the members of a network of practice must find a way to do things together and live with their differences as well as coordinate their differing aspirations: in other words to compromise.

In the networks studied in the present research, Corporate Communications level laid the ground and gave a context to the networks, but in the end, the network members themselves were able to have an influence the network activities. Joint enterprise did not materialize in the sense that Wenger (1998) described it, as Corporate Communications had laid the ground for the networks. However, in the future as the networks evolve the network members may start taking more initiative in the network. Indeed, at the time of the research the network members were quite passive, which was in part due to lack of time, but in part also due to problems in the operational mode in the networks, which did not allow the network members to act very independently. Even if the possibility to influence the agendas of the meetings existed in theory, contributing was not very actively encouraged. Some of the interviewees suggested increasing the contribution of individual network members by for example preparing short introductions to actual topics each in turn. These introductions would then function as a basis for discussion and best practices sharing. Another characteristic of practice as a source of network coherence is the development of a shared repertoire, which both of the networks had. Over time, the joint pursuit creates resources for negotiating meaning. The repertoire of a network of practice include routines, words, tools, and ways of doing things, gestures, symbols and concepts that the network has produced or adopted in the course of its existence, and which have become part of its practice. (Wenger 1998.)

When addressing the issue of how to get employees to do something, is no less important in the contemporary companies that rely heavily on their employees knowledge than it is in a traditional factory. Only the means are different. Where direct control through close supervision was once the norm, companies now employ sophisticated systems of meaning construction, identity management, and so forth. Indeed, it is not possible or even appropriate to tell the network members what they must or must not do. As Lincoln and Kallenberg (1990, 23) stated, “When an organization finds the means to elicit the commitment of its members, it has at its disposal a very powerful mechanism of control.” Active participation and personal involvement are good indicators of commitment.

When discussing the role of control in commitment the issue of autonomy inevitably comes up. This is important to note in the context of the present research as well. Professional status and experience legitimates the claim for autonomy. Adami (1999) states that autonomy is said to be important for creative work. It stands to reason that employees who are professionals in their field, socialized in the ways of their profession and the organization, who are relied upon for their specialized knowledge, and whose work is self-contained can well work in non-co-located groups, in which less control and more autonomy is exhibited. As the networks consist of professionals to whom the participation to the network activities is voluntary, the commitment to participate has to be endogenous. Because networks of practice are voluntary, what makes them successful over time is their ability to generate enough excitement, relevance, and value to attract and engage members (Wenger & Snyder 2000). This proves that if voluntary contribution to the network was to be increased, it can happen only through offering the network members content that is exiting enough to create added value to the network members.

Although many factors, such as management support or an urgent problem can inspire a network, nothing can substitute for a sense of aliveness created by the members themselves and paced by the network activities. As networks of practice are inherently formed on the interaction and social ties of the members (Teigland & Wasko 2004.), geographical distribution calls for extra effort for creating and maintaining these ties. An individual's motivation to participate in a network of practice and an organization's willingness to support that network both stem from an expectation that it will deliver a particular value. Sustaining the delivery of value and ensuring that there is alignment in the expectations of the value to be delivered are therefore fundamental aspects of successful networks of practice. (Wenger et al. 2002.)

Although various environments for interaction have been built to support the learning and knowledge sharing process in networks of practice, they often seem to fail to deal with one of the main problem: keeping users interacting and exchanging relevant information. The supporting system and network management methods should provide the necessary stimulus for the network members to collaborate. In addition, the network members' commitment to contributing for the network is vital. However, keeping members active in such environment is not an easy task. The usual obstacles are: people are not available; participants do not know enough about the issue, and lack of time to contribute. The results of the present research indicated that three issues are particularly important in these networks to ensure that they will function in a best possible way from the network members', their units' as well as Corporate Communications level point of view:

1. Useful and interesting content for the network members' work from the professional development point of view
2. Appropriate tools and communication methods
3. Increasing voluntary contribution of the network members to keep the interaction reciprocal and active

As a result of combining these three factors, involvement and participation of the network members can be better attracted. In addition, these issues should be solved by the network and not by the facilitator only. Indeed, the key to successful networks of practice is to design the network on collaboration and aliveness, in which the facilitator functions as a valuable support. Effective network design is built on the collective experience of network members. To invite participation and effectively share knowledge, these networks need to develop a common set of norms, standards, and language that provides the appropriate context for the network knowledge. According to Wenger et al. (2002), in well-functioning networks of practice the network members participate in making and changing the rules. In consequence, the rules they adopt will automatically fit their needs.

One key factor in common for vibrant networks of practice is the frequency of the network activities. According to Wenger et al. (2002) at the heart of the network is a web of relationships among members, but the tempo of the interaction is greatly influenced by the rhythm of network events. The rhythm of the network is the strongest indicator of its aliveness. A combination of the entire network and small group gatherings, such as those in the network B (see descriptions of the networks from Table 1), can balance the thrill of exposure to many different ideas and the comfort of more intimate relationships. According to Wenger et al. (2002), a mix of idea sharing forums and tool building projects fosters both casual connections and directed network action. Research (see for example White 2004; Teigland & Wasko 2004) has shown that regular events, paced to avoid overload, create points around which activity can converge in networks of practice. Such events encourage people to keep coming back, rather than gradually drifting away. The contents of these events should be truly interesting and beneficial from the practice point of view, so that the network can actually fill its purpose. The participation to the network activities should be beneficial from personal as well as work related and professional point of view.

Wenger and Snyder (2000) explain that contributions and learning in networks takes place in different ways. The evolution of the network requires different activity levels and different kind of support at different times. Such an approach also gives space to new and inexperienced network members to settle in. The results of this research showed that interviewees with less experience from Nokia and communications work generally were more interested in closer cooperation than their more experienced colleagues. The network indeed, functions as a good learning opportunity for the newcomers, but should also offer something for the more experienced network members. The ultimate challenge for the networks is how to retain the interest of such experienced professionals.

Another important notion Wenger et al. (2002) make, is that enough time and space for relationship building among network members should be allowed. While making and maintaining connections is an important part of the network building and management process, the willingness of individuals to share knowledge requires additional time and effort. Employees need the opportunity to interact with each other so that they can evaluate the trustworthiness of others and gauge a sense of mutual obligation. However, Wenger et al. (2002) do not suggest that specific trust building activities, such as experiential learning events are the key to building these important relationships. Rather, they believe that interactions that focus around work activities play an important role in building common sense of appreciation needed to effectively share knowledge. The results of this research indicated that the network members should be more closely included in the network development, which would then create a sense of belonging to the network and through that commitment to the network.

According to Nardi and Whittaker (2002), most theorists imply that face to face discussion is the golden standard of communication, even irreplaceable. On the other hand, in a distributed situation, face to face communication can be costly and disruptive, and mediated communication sometimes may be preferable. (Järvenpää and Ives 1994.) For the networks of the present research, face to face communication seemed to be the source of life and therefore a necessity as other communication methods in use did not work very well.

At present, the barriers of maintaining a vibrant network of practice often arise form each individual's own perspective, not the community's. This requires a new mindset to knowledge sharing and organizational learning within the organization. Knowledge can also be considered a public good, owned and maintained by a community. When knowledge is considered a public good, knowledge exchange is motivated by moral obligation and community interest rather than by narrow self-interest. The knowledge embedded in community perspective views knowledge as collectively owned and maintained by the community. Knowledge exchange occurs primarily through open discussion and collaboration, creating an open knowledge forum supporting the dynamic interchange of ideas. Knowledge is considered a public good where members of the community collectively contribute to its provision and all members may access the knowledge provided. From this perspective, the motivation for knowledge exchange is not self-interest, but care for the community.

The motivation to exchange knowledge is affected by whether the decision to share is viewed as primarily economic and motivated by self-interest, or non-economic and motivated by community interest and moral obligation (Monge & Contractor 2003). The knowledge can be viewed as an object or knowledge embedded in individuals and therefore considered as a private good, owned either by the organization or the individual. In such cases, people exchange their knowledge through market mechanisms in order to receive commensurate benefits. They are motivated by self-interest and are less likely to exchange knowledge unless provided with tangible returns such as promotions, raises, and/or bonuses, or intangible returns such as reputation, status and direct obligation from the knowledge seeker. With a public good, the economically rational action is to free-ride, in other words, consume the public good without contributing to its creation or development. The motivation to maximize self-interest does not adequately explain why people contribute to public goods when it is not rational to do so. Therefore, the motivation to exchange knowledge as a public good goes beyond the maximization of self-interest and personal gain.

As discussed earlier, those network members who had meetings less often, but always face to face and often lasting one whole working day, were more satisfied with the network than members of the other network, who had shorter meetings monthly, to which most participated through a conference call. Kimball's (1997) thoughts on distributed teams can be applied to the networks of the present research to some extent. Kimball states that such networks form and share knowledge on the basis of information pull from individual members, not a centralized push. Knowledge-based strategies should therefore not be centered around collecting and disseminating information, but rather on creating a mechanism for the network members to reach out and communicate with other practitioners and to find ways that support the transformation of individuals' personal knowledge into the networks' shared knowledge. That goal requires designing environments where all the individuals feel comfortable and have incentives to share what they know. In order to have productive conversations among members of the networks, some kind of common cognitive ground should be created for the group. According to Kimball (1997), even networks from the same organization can have a hard time developing conversations deep enough to be significant without some kind of specific context as a beginning frame. Contexts can be created by guest speakers, training courses, requests for input to a specific topic, and special events.

In summary, in the light of the results of the present research the issues that require attention in order to create and foster active networks of practice are:

1. An appropriate subject area. Voluntary groups of people coming together because of their shared interest in the subject and a desire to develop and maintain their knowledge about it for personal and business benefit
2. A clear and jointly defined purpose. The purpose and relevance of the networks should be made clear so that participation is not perceived to be additional work

3. A culture of trust and openness. Sharing news, documents and questions and answers around important issues can be used to build trust and openness.
4. Establishing the facilitator’s and the network member’s roles clearly
5. Organizational support

By ensuring these five points come true in any network of practice, people can focus their creative energies on furthering their knowledge and competence in the actual practice through which the organization can reach the added value of such networks. In conclusion, what made the networks of practice studied in this research viable and functional over time from the network member’s point of view, was their ability to generate enough excitement, relevance, and value to engage members. Many factors, such as management support inspired the network, but nothing could substitute for the network members’ willingness to contribute to the network and the aliveness the network members themselves created. An individual’s motivation to participate in a network of practice and an organization’s willingness to support that network both stemmed from the expectation that it delivered a particular value.

7.1 Evaluation

Lincoln and Guba (1985) suggest that four key questions can be asked of qualitative research:

1. Are the findings credible? (internal validity)
2. Are the findings transferable? (external validity)
3. Are the findings replicable? (reliability)
4. Are the findings objective? (confirmability)

Credibility or internal validity asks whether the study was made in such a way that the participants’ data were accurately identified or described. Transferability or external validity asks whether the findings can be applied to another setting or group of people experiencing the same phenomenon.

Replicability or reliability refers to another researcher coming to the same conclusion given the same data. Finally, the research has to be objective or free from bias. Confirmability refers to the degree to which the results could be confirmed or corroborated by others. In addition, this means that the researcher will not treat some data differently to others. (Lincoln and Guba 1985.)

The two first points concern validity, which is one of the main concerns with research. “Any research can be affected by different kinds of factors which, while extraneous to the concerns of the research, can invalidate the findings” (Seliger & Shohamy 1989, 95). Validity can be divided into internal and external validity. Internal validity or credibility of the research findings concerns the accuracy of the conclusions drawn from the research study. According to Frey et al. (2000, 109) internal validity asks:

> *“…whether a research study is designed and conducted such that it leads to accurate findings about the phenomena being investigated for the particular group of people or texts studied.”*

The credibility or internal validity criteria involves establishing that the results of qualitative research are credible or believable from the perspective of the participants in the research (Lincoln & Guba 1985). Since from this perspective, the purpose of qualitative research is to describe or understand the phenomena of interest from the participant’s point of view, the participants are the only ones who can legitimately judge the credibility of the results. The research findings were presented to the participants only after this research was made public. This obviously meant that it was not possible to describe the participants’ judgment of the results here. However, by presenting the results to the participants, the research procedure and results were exposed to open critique. The research plan was presented to the participants prior to conducting the research, which allowed the participants to comment it. In addition, the credibility of the research findings of the present research was enhanced by using multiple methods of data collection. As a basis for designing the research, the researcher’s own knowledge and the network coordinators’ interviews were used. The research was conducted using a questionnaire and interviews. Indeed, one of the most important factors in conducting credible qualitative research are valid measurement techniques. Data collected through questionnaires, interviews or any other methods are worthwhile only if they are recorded in accurate ways. The goals of assessing the accuracy of a measurement are to demonstrate that the measures used are valid and that they adequately reflect the underlying theoretical constructs. (Frey et al. 2000, 109–111.) This is important from the credibility point of view. According to Frey et al. (2000, 111), measurement validity refers to how well the researcher measure what they intended to measure. The more closely the measured data reflect the observable characteristics of the research concepts, the more credible the measurement technique. Measurement validity, thus, refers to the ability of a measurement technique to tap the referents of the concepts being investigated.

Controlling environmental influences was important in the present research, as the research procedure itself may sometimes be a threat to credibility of a research (Frey et al. 2000, 120). The setting of the study was kept as consistent as possible. All face to face interviews were conducted under similar conditions in Nokia premises in a standard meeting room. The phone interviews were also agreed well in advance, so that the interviewee had the possibility to book a suitable meeting room for the teleconference and able to speak freely. In addition, the selection of people in qualitative research is important in order to be able to describe the phenomena realistically. If the target group of a research is small enough, sampling might not be needed and every member of the target group could be studied. However, rarely everyone responds, so it is hardly ever possible to obtain a census, where every member of the target group can be studied. In the present research, the questionnaire was sent to all the members of the networks the whole population being 24 people. The respondents were able to add their contact information at the end of the questionnaire in order to sign up for an interview. This resulted in four enrollments. After these four interviews, additional two interviewees were selected by randomly picking one person from each of the networks. A sample consisting entirely of volunteers, like any other nonrandom sample, may not be representative of the whole population from which it is drawn. Often volunteers differ from non-volunteers in important ways that might affect the findings. (Frey et al. 2000, 132). The fact that the four first interviewees were volunteers may indicate that the respondents are active in the network or may have particularly strong opinions on it. Therefore, the two interviewees who did not volunteer balance the sample in that sense.

External validity or the transferability of the research findings concerns the generalizability of the findings from a research. According to Frey et al. (2000, 109) external validity asks:

> *"…whether the conclusions from a particular study can be applied to other people, texts or times."*

Transferability refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings. From a qualitative perspective transferability is primarily the responsibility of the one doing the generalizing. (Lincoln & Guba 1985.) The transferability of this research was enhanced by doing a thorough description of the research context and the assumptions that were central to the research. Indeed, by making the construction and background of the questionnaire and the thematic interview guide, it is easier to transfer the results. Ultimately, the person who wishes to transfer" the results to a different context is responsible for making the judgment of how sensible the transfer is.

The traditional quantitative view of reliability is based on the assumption of replicability or repeatability (Lincoln & Guba 1985). Essentially it is concerned with whether it would be possible to obtain the same results by observing the same phenomenon twice. Especially in qualitative research, it is impossible to measure the same thing twice. By definition, if something is measured twice usually, two different things are being measured. The idea of dependability in qualitative reserach, on the other hand, emphasizes the need for the researcher to account for the ever changing context within which research occurs. (Lincoln & Guba 1985.) The researcher is responsible for describing the changes that occur in the setting and how these changes affected the way the research approached the study. In the context of this research, measurement reliability is central. Frey et al. (2000) state that for the measurement to be valid, it must first demonstrate reliability. Measurement reliability means measuring something in a consistent and stable manner. The more reliable a measurement is, the more dependable it is, because it leads to similar outcomes when applied to different people, contexts or time periods.

Measurement reliability and validity are inseparable. Neither is meaningful without the other. However, a measurement can be reliable but not necessarily valid. A scale, for example, can measure something consistently, but what it measures may be something other than what it was designed for. (Frey et al. 2000, 109.) Therefore, reliability is a necessary, but not sufficient prerequisite for developing valid measurements. The reliability of the measurement used in this research is supported by the fact that the questionnaire was constructed on the basis of previously constructed commitment measures. This increases the reliability of the questions as they have been used in previous research and considered reliable there. In addition, the issues that emerged from the results of the questionnaire were in part taken up again in the interviews. This was done in order to ensure consistency in answers between the questionnaire and the interview. This double-checking did not show any inconsistency with the results.

Confirmability refers to the quality of the data: whether the data can be confirmed by other observers or interpreters (Lincoln & Guba 1985.) Confirmability of the results of the present research was not extensively tested. However, prior to conducting this research, the researcher had the possibility to observe the networks in their actual work, which enables the researcher to better understand the nature of the networks and be able to look at the research subject from the network member’s point of view at least to some extent. In addition, this research has been peer reviewed by fellow undergraduate students during thesis seminars in two occasions. This obviously does not correspond to a thorough corroboration process by peers, but gives some consolidation of the direction of the research.

The researcher's personal background and connections to the organization should be explained to enhance the transparency of the research. The researcher has been involved with the networks at work prior to this research, and continues to work for Nokia, but is not involved with the networks in other occasions except for when conducting this research. The fact that the researcher has met the majority of the network members in several occasions and has become acquainted with some of them, might have had an effect on the way the network members responded to the questionnaire and the interviews. Obviously, a certain way to tell this effect on the respondents does not exist.

7.2 Suggestions for further research

During the past decade group work and collaboration in distributed environments have become important research topics due to changes in the contemporary organizations, business environment and the interconnectivity enabled by the Internet and other information and communication technologies. Several interesting and less studied areas exist in the research on communities and especially networks of practice. New and interesting research questions emerged during this study worth examining in the context of the networks of the networks of the present research, but in a wider context as well. Besides commitment, several neighboring concepts exist, such as identification and motivation, through which it would be interesting to examine networks in a contemporary company. This research concentrates on commitment, but touches these topics to some extent as well. Identification and motivation would be good starting points for follow-up research.

Networks of practice play a significant role in developing a company's social capital. This research pointed out that especially those networks that are initiated by a third party outside form the actual network, in the case of the present research Corporate Communications level, need management support in order to become functioning networks of practice. Eventually, such networks function as a vehicle for improving performance. Therefore, the challenge is to identify the management actions that will build the social capital necessary to achieve these goals. Followed by this, another future direction for community research would be to measure the effectiveness of various social capital activities with respect to organizational performance.

What can a network of practice do, at each stage of development, to attract and retain talented professionals? How might they provide the kind of creative, social environment that attracts professionals and appeals to thought leaders? Indeed, this is one of the most critical questions in networks of practice. In the case of the networks of the present research, the network membership came with the job, but obviously more than just attending the meetings is required to keep the network alive. To retain the network members, interest in the network, a common set of norms, standards, and language is needed to provide an appropriate context for the social capital and shared network knowledge. Networks need different kinds of support in different stages of evolution. Young networks of practice rarely are self-governing and need facilitation to develop. Examining the effectiveness of network management and facilitation methods and the information and communication technologies used versus the network's evolutionary phase is one step further in network research.

LITERATURE

Adami, L. M. 1999. Autonomy, control and the virtual worker. In Jackson, P. (Ed.) Virtual working. Social and organizational dynamics, 131–150. London: Routledge.

Armstrong, D. J. and Erika, B. P. 2002. Virtual proximity: Real teams. In Hinds, P. J. & Kiesler, S. (Eds.) Distributed work, 187–191. London: MIT Press.

Bal, J. and Foster, P. 2000. Managing the virtual team and controlling effectiveness. International Journal of Production Research, 17, 4019–4032.

Barnatt, C. 1995. Cyberbusiness: Mindsets for a wired age. Chichester: Wiley.

Beniger, J. 1986. The control revolution: Technological and economic origins of the information society. Cambridge: Harvard University Press.

Blau, G. J. 2001. On assessing the construct validity of two multidimensional constructs: occupational commitment and career entrenchment. Human Resource Management Review, 11, 279–298.

Bourdieu, P. and Wacquant, L. J. D. 1992. An invitation to reflexive sociology. Chicago: University of Chicago Press.

Bourhis, A., Dubé, L. and Jacob, R. 2005. The success of virtual communities of practice: The leadership factor. The Electronic Journal of Knowledge Management, 1, 23–34.

Bridges, W. 1994. Jobsift: How to prosper in a workplace without jobs? Reading: Addison-Wesley.

Brown, S. and Grey, S. E. 1998. The people are the company. Fast Company Online. Cited 10 April 2006. Available at: http://www.fastcompany.com/online/01/people.html.

Burt, R. S. 2001. Structural holes versus network closure as social capital. In Lin, N., Cook, K. & Burt, R. S. (Eds.), Social capital: Theory and research, 31–56. New York: de Gruyter.

Carson, K. D. and Bedeian, A. G. 1994. Career commitment: Construction of a measure and examination of its psychometric properties. Journal of Vocational Behavior, 44, 237–262.

Castells, M. 1996. The rise of network society. Oxford: Blackwell Publishers.

Cohen, A. 2003. Multiple commitments in the workplace: An integrative approach. London: Lawrence Erlbaum.

Coleman, J. S. 1986. Individual interest and collective action: Selected essays. New York: Cambridge University Press.

Dalton, G. W. and Lawrence, P. 1971. Motivation and control in organizations. Illinois: Richard Irwin.

Davidow, W. H. and Malone, M. S. 1992. The Virtual Corporation. London: HarperBusiness.

De Laat, M. and Broer, W. 2004. CoPs for cops: Managing and creating knowledge. In Hildreth, P. & Kimble, C. (Eds.), Knowledge networks. Innovation through communities of practice, 58–69. Hershey: Idea Group Publishing.

Depickere, A. 1999. Managing virtual working. In Jackson, P. (Ed.) Virtual Working. Social and organizational dynamics, 99–121. London: Routledge.

Dickinson, T. L. and McIntyre, R. .M. 1997. A conceptual framework for teamwork measurement. In Brannick, M.T., Salas, E., & Price, C. (Eds.), Team performance assessment and measurement, 19–44. Mahwah: Erlbaum Associates

Drucker, P. F. 1998. Management's new paradigms. Forbes, Oct. 5, 1998, 152–177.

Dyer, W. G. 1987. Team building: Issues and alternatives. Reading: Addison-Wesley.

Ellmers, N., van Rijswijk, W., Bruins, J. and de Gilder, S. 1998. Group commitment as moderator for attributional and behavioral responses to power use. European Journal of Social Psychology, 28, 555–573.

Eisenberg, E. M. and Goodall, H. L. 1993. Organizatioanl communication: Balancing creativity and constraint. New York: St Martin’s Press.

Fielding, N. 1993. Ethnography. In Fielding, N. (ed.), Researching social life. London: Sage, 155–171.

Fontaine, M. A. and Millen, D. R. 2004. Understanding the benefits and impact of communities of practice. In Hildreth, P. & Kimble, C. (Eds.), Knowledge networks. Innovation through communities of practice, 1–13. Hershey: Idea Group Publishing.

Frey, L. R., Botan, C. H. and Kreps, G. L. 2000. Investigating communication. An introduction to research methods. Hershey: Idea Group Publishing.

Fulk, J. and DeSanktis, G. 1999 Articulation of communication technology and organizational form. In DeSanctis, G and Fulk, J. (Eds.), Shaping organizational form: Communication, connection and community, 5–32. Thousand Oaks: Sage.

Giddens, A. 2000. Runaway world: How globalization is reshaping our lives. New York: Routledge.

Glacer, B. G. 1998. Doing grounded theory: issues and discussions. Mill Valley: Sociology Press.

Granovetter, M. 1992. Problems of explanations in economic society. In Nohria, N. & Ecles, R. G. (Eds.), Networks as organizations: Structure, form and action, 25–56. Boston: Harvard Business School Press.

Greenberg, J. and R. Baron 1995. Behavior in Organizations. Undestanding and managing the human side of work. London: Prentice-Hall.

Harris, L., Coles, A-M., Dickson, K., and McLaughlin, I. 1999. Building collaborative networks. In Jackson, P.J. (Ed.), Virtual working. Social and organizational dynamics, 33–45. London: Routledge.

Harris, T. and Sherblom, J. 1999. Small group and team communication. Boston: Allyn and Bacon.

Henry, J. E. and Hartzler, M. 1998. Tools for virtual teams. Milwaukee: Quality Press.

Hildreth, P., Kimble, C. and Wright, P. 2000. Communities of practice in the distributed international environment. Journal of Knowledge Management, 1, 27–38.

Hirokawa, R. Y. 1990. The role of communication in group decicion making efficacy. Small Group research, 21 (2), 190–204.

Hirsjärvi et al. 2003. Tutki ja kirjoita. [Research and write] Jyväskylä: Gummerus.

Homans, G. C. 1974. Social behavior: Its elementary forms. New York: Harcourt Brace.

Huczynski, A. and Buchanan, D. 2001. Organizational behaviour. An introductory text. Harlow: Prentice Hall.

Huotari, M-L., Hurme, P. and Valkonen, T. 2005. Viestinnästä tietoon. Tiedon luominen työyhteisössä. [From communication to knowledge. Creating knowledge in the work community] Helsinki: WSOY.

Järvenpää, S. L. and Ives, B. 1994. The global network organization of the future. Journal of Management Information Systems, 10, 25–57.

Jackson, P. J. 1999. (Ed.), Virtual working. Social and organizational dynamics. London: Routledge.

Kanugo, R. N. 1982. Measurement of job and work involvement. Journal of Applied Psychology, 67, 341–349.

Katzenbach, J. R. and Smith, D. K. 1999. The wisdom of teams. Creating the high-performance organization. New York: Harper Collins.

Kerber, K. W. and Buono, A. F. 2004. Leadership challenges in global virtual teams: Lessons from the field. Sam Advanced Management Journal, 4, 4–10.

Kimball, L. 1997. Speech given at the team strategies conference, Toronto, Canada. Cited 18 April 2006. Available at: http://www.groupjazz.com/pdf/vteams-toronto.pdf.

Knoll, K. and Järvenpää, S. L. 1998. Working together in global virtual teams. In Igbaria, M. & Tan, M. (Eds.) The virtual workplace, 2–23. London: Idea Group Publishing.

Lash, S. and Urry, J. 1994. Economies of signs and space. Thousand Oaks: Sage.

Lave, J. and Wenger, E. 1991. Situated learning. Legitimate peripheral participation. Cambridge: Cambridge University Press.

Lee, L. L. and Neff, M. 2004. How IT can help build and sustain an organizations CoP? In Hildreth, P. & Kimble, C. (Eds.), Knowledge networks. Innovation through communities of practice, 14–23. Hershey: Idea Group Publishing.

Lesser, E. L. and Fontaine, M. A. 2004. Overcoming knowledge barriers with communities of practice. In Hildreth, P. & Kimble, C. (Eds.), Knowledge networks. Innovation through communities of practice, 24–36. Hershey: Idea Group Publishing.

Lincoln, J.R. & Kallenberg, A.L. 1990. Culture, control and commitment: A study of work organization and work. Cambridge: University Press.

Lincoln, Y. S. and Guba, E. G. 1985 Naturalistic enquiry. New York: Sage.

Lodhal, T. M. and Kejner, M. M. 1965. The definition and measurement of job involvement. Journal of Applied Psychology, 49, 2433–2478.

Lämsä, A-M. and Hautala, T. 2005. Organisaatiokäyttäytymisen perusteet. [The basics of organizational behavior]. Helsinki: Edita.

McLuhan, M. 1964. Understanding media. New York: McGraw Hill.

Marwell, G. and Oliver, P. E. 1993. The critical mass in collective action: A micro-social theory. Cambridge: Cambridge University Press.

Meyer, J. P. and Allen, N. J. 1997. Commitment in the workplace. Theory, research and application. London: Sage.

Meyer, J. P. and Allen, N. J. 1993. Commitment to organizations and occupations: Extension and test of three component conceptualization. Journal of Applied Psychology, 78, 538–551.

Meyer, J. P. and Allen, N. J. 1991. A three component conceptualization of organizational commitment. Human Resources Management Review, 1, 61–89.

Mitchell, J. 2002. The potential for communities of practice. Sydney: John Mitchell and Associates.

Miles, R.E. and Snow, C.C. 1986. Organizations: New concepts for new forms. California Management Review, 18, 62–73.

Monge, P. R. and Contractor, N. S. 2003. Theories of communication networks. New York: Oxford University Press.

Monge, P. R., Fulk, J., Kalman, M., Flanagin, A. J., Parnassa, C. And Rumsey, S. 1998. Production of collective action in alliance-based interorganizational communication and information systems. Organization Science, 9, 41–433.

Morrow, P. 1993. The theory and measurement of work commitment. Greenwich: JAI.

Mowday, R.T., Porter, L. W. and Steers, R. 1982. Organizational Linkages: The psychology of commitment, absenteeism and turnover. San Diego: Academic Press

Nardi, B. A. and Whittaker, S. 2002. The place of face to face communication in distributed work. In Hinds, P. J. & Kiesler, S. (Eds.) Distributed work, 83–112. The MIT Press: London.

Neus, A. 2001. IQ 2001: Managing Information Quality in Virtual Communities of Practice. Speech held at the 6th International Conference on information quality at MIT.

Nokia 2006. Nokia Organization. Nokia's web-pages. Cited 3 January 2006. Available at: http://www.nokia.com/A402695.

Nokia 2005. About Nokia brochure. Espoo: Nokia Oyj

Olaniran, B. 2003. Computer-Mediated Communication in Cross-Cultural Virtual Teams. International and Intercultural Communication Annual.

O'Reilly, C. A., Chatman, J. and Caldwell, D. F. 1991. People and organizational culture: A profile comparison approach to assessing person-organization fit. Academy of Management Journal, 34, 487–516.

Ouchi, W. 1977. The relationship between organizational structure and organizational control. Administrative science quarterly, 22, 95–112.

Peltoniemi, J. and Hautala, T. 1997. Tiimin jäsenet ovat lähes kaikkea sitä, mitä työ kokonaisuudessaan edellyttää. [Team members are all that, what their work requires]. In Lehesvuo, P. (Ed.), Tiimit ja johtaminen. Vaasan yliopiston täydennyskoulutuksen julkaisuja 15/1997, 23–31.

Preece, J. 2004. Etiquette and trust drive online communities of practice. Journal of Universal Computer Science. (Draft, accepted in press). Cited 11 June 2006. Available at: http://www.ifsm.umbc.edu/~preece/Papers/Tacit_Know_COPs.pdf.

Ranchhod, A. and Zhou, F.2001. Comparing respondents of e-mail and mail surveys: understanding the implications of technology. Marketing intelligence and planning, 19, 254–262.

Randall, D. M. and Cote, J. A. 1991. Interrelationships of work commitment constructs. Work and occupation, 18, 194–211.

Ritchie, J. and Spencer, L. 1993. Qualitative data analysis for applied policy research. In Bryman, A. & Burgess, R. (Eds.), Analysing qualitative data. London: Routledge, 173–194.

Sarala, A. and Sarala, U. 1996. Oppiva organisaatio. Oppimisen, laadun ja tuottavuuden yhdistäminen. [Learning organization. Combining learning, quality and productivity.] Tampere: Tammer-paino.

Schein, E. 1994. Organizational psychology. Upper Saddle River: Prentice-Hall.

Scholl, R. 2003. Human resource strategies: Commitment and control approaches to workforce management. Cited 3 March 2006. Availabele at: http://www.cba.uri.edu/scholl/Notes/Commitment_Control.html.

Seliger, H. and Shohamy, E. 1989. Second Language Research Methods. Oxford: Oxford University Press.

Senge, P., Kleiner, A., Roberts, C., Ross, R. B. and Smith, B. J. 1994. The fifth discipline fieldbook: Strategies and tools for building a learning organization. New York: Doubleday.

Simon, H. A. 1976. Administrative behavior. New York: Macmillan

Teigland, R. 2003. Knowledge networking. Structure and performance in networks of practice. Dissertation for the degree of Doctor of Philosophy. Stockholm: Stockholm School of Economics

Teigland, R. and Wasko, M. 2004. Participation and knowledge exchange in electronic networks of practice. In Hildreth, P. & Kimble, C. (Eds.), Knowledge networks. Innovation through communities of practice, 230–242. Hershey: Idea Group Publishing.

Townsend, A. M., DeMarie, S. M. and Hendrickson, A. R. 1998. Virtual teams: Technology and the workplace of the future. Academy of Management Executive, 3, 17–29.

Truell, G. F. 1991. Employee involvement: A guidebook for managers. Buffalo: PAT.

Warkentin, M. and Beranek, P. M. 1999. Training to improve virtual team Communication. Info Systems Journal, 9, 271–289.

Wenger, E. 1998a. Communities of practice: Learning, meaning and identity. Cambridge: Cambridge University Press.

Wenger, E. 1998b. Communities of practice. Learning as social system. Systems Thinker 6.

Wenger, E., McDermott, R. and Snyder, W. 2002. It takes a community. CIO – Magazine for information executives. May 15, 2002.

Wenger, E. and Snyder, W. 2000. Communities of Practice: The organizational frontier. Harvard Business Review 78, 139–145.

White, N. 2004. Facilitating and hosting a virtual community. Seattle: Full Circle Associates.

Willer, D. and Skvoretz, J. 1997. Network connection and exchange ratios: Theory, predictions and experimental tests. Advances in Group Processes, 14, 199–234.

Williamson, O. E. 1985. The economic institutions of capitalism: Firms, markets, relational contracting. New York: Free Press.

1. Commitment scales from previous research

Organizational Commitment Questionaire by Porter et al. 1970, quoted in Mowday et al. (1982.)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful.
2. I talk up this organization to my friends as a great organization to work for.
3. I feel very little loyalty to this organization.
4. I would accept almost eny type of job assignment in order to keep working for this organization.
5. I find that my values and the organization’s values are very similar.
6. I am glad to tell others that I am a part of this organization
7. I could just as well be working for a different organnization as llong as the type of work was similar.
8. The organization really inspires the very best in me the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organization.
10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
11. There’s not too much to be gained by sticking with this organization indefinitely.
12. Often, I find it difficult to agree with this organization’s policies on important matters relating to its employees.
13. I really care about the fate of this organization.
14. For me this is the best of all possible organizations for which to work.
15. Deciding to work for this organization was a definite mistake on my part.

Meyer and Allen's (1991) Affective Organizational Commitment Scale

1. I would be very happy to spend the rest of my career with this organization
2. I enjoy discussing my organization with peolple outside it.
3. I really feel as if this organization's problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one.
5. I do not feel like part of the family at my organization.
6. I do not feel emotionally attached to this organization.
7. This organization has a great deal of personal meaning to me.
8. I do not feel a strong sense of belonging to my organization.

Meyer and Allen's (1991) Continuance Organizational Commitment Scale

1. I am not afraid what might happen if I quit my job without having another one lined up.
2. It would be very hard for me to leave my organization right now, even if I wanted to.
3. Too much in my life would be disrupted if I decided I wanted to leave my organization now.
4. I would not be too costly for me to leave my organization now.
5. Right now, staying with my organization is a matter of necessity as much as a desire.
6. I feel I have too few options to consider leaving this organization.
7. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
8. One of the major reasons I continue to work for this organization is that leaving would require considerable sacrifice – another organization may not match the eoverall benefits I have here.

Meyer and Allen's (1991) Normative Organizational Commitment Scale

1. I think that people these days move from company to company too often.
2. I do not believe that a person must always be loyal to his or her organization.
3. Jumping from organization to organization does not seem at all unethical to me.
4. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.
5. If I got another offer for a better job elsewhere I would not feel it was right to leave my organization.
6. I was taught to believe in the value of remaining loyal to one organization.
7. Things were better in the days when people stayed with one organization for most of their career.
8. I do not think that wanting to be a "company man" or "company woman" is sensible anymore.

Career Commitment revised Measure by Blau
(1993, quoted in Blau 2001)

1. If I could, I would go to a different occupation.
2. I can see myself in this occupation for many years.
3. This occupation choise is a good decision.
4. If I could, I would not choose this occupation.
5. I money was not the cuestion, I would still continue in this occupation.
6. Sometimes I am dissatisfied with my occupation.
7. I like my occupation too well to give it up.
8. I do not spend time in further education or training for this occupation.
9. This is an ideal occupation for life work.
10. I wish I had chosen another occupation.
11. I am disappointed that I entered this occupation.

Career Commitment measure by Carson and Bedeian (1994)

1. My line of work/career field is an important part of who I am
2. This line of work/career field has a great deal of personal meaning to me.
3. I do not feel “emotionally attached” to this line of work/career field.
4. I strongly identify with my chosen line of work/career field.
5. The costs associate with my line of work/career field sometimes seem too great.
6. Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it.
7. Given the problems I encounter in this line of work/career field, I sometimes wonder if the personal burden is worth it.
8. The discomforts associated with my line of work/career field sometimes seem too great.
9. I do not have a strategy for achieving my goals in this line of work/career field.
10. I have created a plan for my development in this line of work/career field.
11. I do not identify spesific goals for my development in this line of work/career field.
12. I do not often think about my personal development in this line of work/career field.

Affective Occupational Commitment Scale by Meyer and Allen (1993)

1. Occupation x is important to my self-image.
2. I regret having entered to the x profession.
3. I am proud to be in the x profession.
4. I dislike neing in the x profession.
5. I do not identify with the x profession.
6. I am enthusiastic about x profession.

Continuance Occupational Commitment Scale by Meyer and Allen (1993)

1. I have put too much into the x profession to consider changing now.
2. Changing profession now would be difficult for me to do.
3. Too much of my life would be disrupted if I were to change my profession now.
4. It would be costly for me to change my profession now.
5. There are no pressures to keep me from changing professions.
6. Changing professions now would require considerable personal sacrifices.

Normative Occupational Commitment Scale by Meyer and Allen (1993)

1. I believe people who have been trained in a profession have a responsibility to stay in that profession for a reasonable period of time.
2. I do not feel any obligation to remain in the x profession.
3. I feel aresponsibility to the x profession to continue in it.
4. Even if it were to my advantage, I do not feel that it would be right to leave x profession now.
5. I would feel guilty if I left x profession.
6. I am in the x profession because of a sense of loyalty to it.

Job Involvement Scale of Lodhal and Kejner (1965)

1. I'll stay overtime to finish a job even if I am not paid for it.
2. You can measure a person pretty well by how good a job they do.
3. The major satisfaction in my life comes from my work.
4. For me, mornings at work really fly by.
5. I usually show up work a little early, to get things ready.
6. The most important things that happen to me involve my work.
7. Sometimes I lie awake at night thinking ahead to the next day's work.
8. I'm really a perfectionist about my work.
9. I feel depressed when I fail at something connected with my work.
10. I have other activities more important than my work.

11. I live, eat and breathe my work.
12. I would probably keep working even if I didn't need the money.
13. Quite often I feel like staying home from work instead of coming in.
14. To me, my work is only a small part of who I am.
15. I am very much involved personally in my work.
16. I avoid taking on extra duties and responsibilities in my work.
17. I used to be more ambitious about my work than I am now.
18. Most things in life are more important than work.
19. I used to care more about my work, but now other things are more important to me.
20. Sometimes I'd like to kick myself for the mistakes I make in my work.

Job Involvement Measure by Kanugo (1982)

1. The most important things that happen to me involve my present job.
2. To me, my job is only a small part of who I am.
3. I am very much involved personally in my job.
4. I live, eat and breathe my work.
5. Most of my interests are centered around my job.
6. I have very strong ties with my present job, which would be very difficult to break.
7. usually I feel detached from my job.
8. Most of my personal life goals are job oriented.
9. I consider my job to be very central to my exsistence.
10. I like to absorbed in my job most of the time.

Work Involvement Measure by Kanugo (1982)

1. The most important things that happen in life involve work.
2. Work is something people should get involved in most of the time.
3. Work should only be a small part of one's life.
4. Work should be considered central to life.
5. In my view, an individual's personal life goals should be work oriented.
6. Life is worth living only when people get absorbed in work.

Group Commitment Measure by Randall and Cote (1991)

1. How much of an opportunity do you feel you have to develop close friendsips at work?
2. How much of an opportunity do you have to interact socially with your co-workers on the job?
3. How much of an opportunity in present for you to interact socially with your co-workesr off the job?
4. Some of my best friends are the people I work with.
5. I feel very much part of the people I work with.
6. How frequently do you have off the job contacts with your work colleagues?

Group Commitment Measure by Ellmers et al. (1998)

1. I am prepared to do attidional chores, when this benefits my team.
2. I feel at home among my colleagues at work.
3. I try to invest effort into a good atmosphere in my team.
4. In my work, I let myself be guided by the goals of my team.
5. When there is social activity with my team, I usually help to organize it.
6. This team lies close to my heart.
7. I find it important that my team is successful.

2. Questionnaire

Dear all,

I am a student of organizational communication and PR at the University of Jyväskylä and writing you to invite you to take part in the research project leading to my master's thesis.

The purpose of the research is to study the role of networks in Nokia's internal communications organization. The networks to be studied are the networks of internal communications specialists at TP and NET. The aim of this study is to further develop the network by enhancing it so that it serves you and TP or NET even better.

In order to do that, your view as a network member is vital. I am asking you to fill in this questionnaire by Tuesday 14.3.2006 which has questions concerning your work and your views on the network. In addition to this questionnaire, I also encourage you to sign up for an interview where more precise information about the network will be gathered. The instructions on how to sign up for
the interview are at the end of the questionnaire.

Please be assured that all the information provided will be treated in absolute confidence and used solely for the purposes of this research. Individual respondents cannot be identified in the research report.

If you have any questions concerning the study or the questionnaire, please do not hesitate to contact me by e-mail at sakaberg@cc.jyu.fi or by phone tel. +358 41 511 0079. I am looking forward to your answers and thank you in advance for your time!

Best regards,
Saara Bergström
Background information

1. Organization

TP ☐

NET ☐

2. Do you work..

part time ☐

full time ☐

..in internal communications in your unit?

3. How many years of internal communications experience do you have?

1–3 ☐

4–6 ☐

7–10 ☐

over 10 years ☐

4. How many years have you been with Nokia?

1–3 ☐

4–6 ☐

7–10 ☐

over 10 years ☐

5. Besides the network activities, do you..

Work alone ☐

In a team with other communications specialists in the same unit ☐

In a team of other communications specialists from another unit(s) ☐

Other, please specify

The statements below refer to your personal views about the network No two statements are exactly alike, so consider each statement carefully before answering. Please rate each statement by using the scale from 1 to 5, where 1 is agree and 5 is disagree.

6.

a) I find participating in the network's activities inspiring
b) I feel that I get a lot out of participating in the network's activities.
c) I am sometimes disappointed in the network's activities.
d) I do not feel that the network really makes any difference in my work.
e) The network offers enough support in my work
f) This kind of networks should be used for internal communications work more broadly in Nokia.
g) We could do much more with the help of this network.
h) I would like this network to be more effectively managed.
i) I feel that the communications methods used in this network are effective.
j) I feel it is important that this kind of network exists.

7. In your opinion, what is the purpose of the internal communication's specialists network?

8. In what kinds of issues would you like to have support from the network?

9. What would you change or do differently in the network?

The statements below refer to your personal views about your work. No two statements are exactly alike, so consider each statement carefully before answering. Please rate each statement by using the scale from 1 to 5, where 1 is agree and 5 is disagree.

10.

a) I am proud to be in this line of work
b) I am sometimes disappointed with my career choice in internal communications.
c) My line of work is an important part of who I am.
d) Given the problems I encounter in this line of work, I sometimes wonder if I get enough out of it.
e) I do not spend much time on further education or training myself for this occupation
f) I do not feel “emotionally attached” to this line of work.
g) I do not often think about my personal development in this line of work.

11.

a) I feel at home among my colleagues in the network.
b) Being a part of the network makes me feel closer to corporate communications at Nokia.
c) I feel like I am a part of the family of communications professionals.
d) This network lies close to my heart.
e) I am personally involved in my work.
f) I am prepared to do additional tasks for the network, when it benefits the network and me.
g) To me, my job is only a small part of who I am.
h) I am ambitious about my work.

Please comment, if you have anything more to add.

Sign up for an interview!

The purpose of the interview is to get more information on the results of this questionnaire and to find answers to questions that may arise from the basis of the results. This is also a good chance for you to make a difference in how the network will operate in the future and also convey your point of view to Nokia Corporate Communications. All answers will be handled with absolute confidentiality. The interview will take maximally 45 minutes. Please write your name and contact information in the space below. If you do not want to add your name in this form, you can sign up for an interview by sending me e-mail to sakaberg@cc.jyu.fi.

Thank you for your time!

3. Thematic interview guide

General information

- Years with Nokia, work experience before Nokia, educational background

Information related to work

- Best and worse aspects in your work?
    - Issues related to personal background and individual attitudes as well as organization and work in general
- What kinds of things affect work motivation?
    - What kind of things make you enjoy working?
    - What kind of things complicate working?
    - Issues related to personal background and individual attitudes as well as organization and work in general

Information related to the network

- What is the role of the network in your work?
    - If possible, could it function better or differently?
    - Your suggestions for improvement?
- What makes you participate in the network activities?
    - Concrete benefits?
    - What would make participation in this kind of networks more appealing?
    - Reporting relations?
- What is important in the coordination of the network from your point of view?
    - Practical arrangements
    - Management and guidance
    - Contents of the meetings
- Competence groups and their significance? (network B only)