Email Literacy in the Workplace

A Study of Interaction Norms, Leadership Communication, and Social Networks in a Norwegian Distributed Work Group

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PhD Dissertation
University of Oslo, Norway
2009

Series of dissertations submitted to the
Faculty of Education, University of Oslo
No. 114

ISSN 1501-8962

Cover: Inger Sandved Anfinsen.
Printed in Norway: AiT e-dit AS, Oslo, 2009.

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Communicamus ergo sumus

Robert B. Arundale (2006)

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Acknowledgements

One does not need to write or read a PhD thesis in order to learn that having fun with colleagues makes one's work life pleasurable and motivating. But one has to write a PhD thesis to experience the need for face-to-face interaction at the workplace. When the thesis is about email interaction, this experience becomes even more compelling.

Among all the people who have supported me through this long and sometimes lonesome journey, my supervisor Jan Svennevig deserves the greatest thanks. From the very beginning, he scheduled weekly meetings for data discussions and feedback, included me in his own network and encouraged me to attend conferences. His invaluable expertise and interest in my work, his careful reading and crystal clear comments made it easy for me to live with my emails for five years. Another very supportive person whom I would like to thank especially is Susan Herring at Indiana University. She commented on much of my work, and showed wonderful hospitality when I was visiting the School of Library and Information Science in Bloomington, in the fall of 2006. Both Susan and Jan have meant a lot to me as mentors and role-models.

I am also very grateful to Svein Østerud, the leader of the "Literacy-project" at the University of Oslo. During the project period, he regularly arranged meetings and workshops with the group, and in collaboration with Egil Skogseth he directed the work with the book "Å være på nett," in which we all published Norwegian versions of our articles. Svein provided insightful feedback and showed great enthusiasm with our work. I also thank Sten Ludvigsen, for his unconditional and "fatherly" engagement with the Research School, and the effort he put into arranging high quality seminars. His critical and competent comments have contributed to increasing the quality of this thesis. I also thank all my peers at the Research School for numerous readings of my drafts and for showing solidarity and support during my journey to "The World's End".

The PhD-period would never have been the same without my colleague and friend, Aslaug Veum. Thanks for great collaboration, invaluable feedback, emotional support, and hours of conversation on the phone. I would also like to thank a number of scholars who have read parts of my work and provided helpful comments. They are David Middleton, Arja Irmeli Piirainen-Marsh, Kari-Anne Rødnes, Cathrine Tømte, Tom-Erik Julsrud, Leif Lahn, Manju Ahuja, Carolyn Miller, and Johan Tønneson. Thanks also to my proof reader, Charles

Cooper at the Norwegian School of Management BI, and Tor Jørgensen for assistance with the thesis'lay out.

The members of "Agenda" also deserve a great thank. They generously allowed me to collect their emails, record their meetings, and kindly answered to all my questions during the field work. Thanks especially to the leader of Agenda, LM, and the information director, AL, for prioritizing my project in their very busy schedual.

I am endlessly grateful to my closest family; my father for assisting me with Excel and my mother for continuously coaching me in always focusing on the bright sides of work life. Finally, million of thanks to the two men in my life; my patient and faithful husband, Tor-Einar for always standing beside me in the struggle, and Henrik for finally coming all the way from China at the end of my project – you are the sunshine of my life!

This dissertation has been financed by the KIM-program of The Research Council of Norway through the project "Literacy and media convergence: New forms of semiotically mediated interaction." In addition, one year of the project was financed by the Department of Communication, Culture, and Languages, at the Norwegian School of Management BI. Funding has also been provided from the Researh School at Intermedia, University of Oslo.

Kongsberg, February 2009

Karianne Skovholt

Abstract in Norwegian: E-postkommunikasjon i arbeidslivet

Denne avhandlingen er en språkvitenskapelig studie av e-postkommunikasjon i arbeidslivet. Materialet består av e-poster som ble sendt mellom medlemmene av en distribuert arbeidsgruppe i en norsk teleorganisasjon høsten 2004. Det overordnede målet er å kartlegge hva slags literacy, eller kommunikativ kompetanse, som er knyttet til e-post slik mediet utnyttes i den daglige kommunikasjonen på en arbeidsplass. Literacy forstås som et sett av sosiale praksiser, der skriftspråket og andre symbolske redskaper er involvert. I analysene operasjonaliseres literacy som samhandlingsnormer og retoriske valg og analyseres i lys av den institusjonelle konteksten som e-postutvekslingene er en del av. Ved hjelp av nærlesning av autentiske e-poster beskriver studien hvilke kommunikative praksiser som er oppstått og hvilke interaksjonsnormer som er etablert i mediet. Studien kartlegger to ulike aspekter av e-post-literacy; 1) hvordan ledelse kommer språklig til uttrykk i en virtuell arbeidsgruppe og 2) hvilke interaksjonsnormer som er utviklet i e-postmediet. Studien beskriver mer detaljert hvilke normer som er utviklet for å sende e-postkopier, normer for når man trenger å svare på en e-post, og når man kan la være, og til slutt hvilke språkhandlinger og retoriske valg som blir foretatt i forbindelse med å utøve ledelse gjennom e-postmediet.

Fordi e-post er en hybrid kommunikasjonsform og har likhetstrekk med både brev og samtale, analyseres e-postene både som turer i en samtale og som skriftlige tekster. Studien har en overordnet dialogisk tilnærming til tekst og kommunikasjon og henter det analytiske rammeverket fra diskursanalyse. I analysene benyttes blant annet samtaleanalyse (CA) og interaksjonistiske versjoner av høflighetsteori og språkhandlingsteori. Studien har i tillegg en kvantitativ del, der sosiometri og nettverksanalyse brukes for å kartlegge og visualisere det faktiske interaksjonsmønsteret mellom deltakerne i arbeidsgruppa.

I kapittel 1 introduseres avhandlingens overordnede problemstilling og teoretiske tilnærming. I kapittel 2 presenterer jeg tidligere forskning, og i kapittel 3 redegjør jeg for materialet og metodologi. Kapittel 4-7 utgjør avhandlingens fire artikler, mens kapittel 8 oppsummerer og diskuterer funnene under ett.

I kapittel 4 undersøker jeg kvantitativt hvordan ledelse kommer til uttrykk gjennom en distribuert arbeidsgruppes kontaktfrekvens og utvekslingsmønster, og mer spesifikt hva slags språkhandlinger gruppelederen utfører. En nettverksanalyse av gruppas totale antall e-poster viser at lederen sender det høyeste antallet e-poster, har flest bånd til de andre i gruppa,

utfører flest anmodninger i gruppa og er den som fremfører flest minimale responser. Disse funnene viser at gruppa er hierarkisk organisert rundt en sterk leder som fyller to viktige ledelsesfunksjoner. På den ene siden kontrollerer hun gruppas arbeid gjennom hyppige initiativer, møteinnkallelser og informerende e-poster som hun sender til gruppa som helhet. Disse handlingene fyller en organiseringsfunksjon (team management function). På den andre siden reflekterer funnene en leder som støtter og roser gruppa si gjennom å gi hyppige minimale responser. Disse handlingene fyller en gruppeutviklende funksjon (team development function).

I kapittel 5 bygger jeg videre på studien i kapittel 4 og undersøker hvordan ledelse språklig sett kommer til uttrykk. Her blir lederens retoriske praksiser analysert. Studien viser at lederen inviterer til identifikasjon gjennom å gi gruppa et positivt ladd kallenavn, bruke ulike typer narrative virkemidler og gjennom å fremføre hyppige minimale responser og støttende tilbakemeldinger. I tillegg fremfører lederen anmodninger med positive høflighetsstrategier, noe som signaliserer felles bakgrunnskunnskaper og nærhet. Lederen setter sin institusjonelle posisjon i bakgrunnen til fordel for å etablere nærhet og sosiale relasjoner med gruppa. På den måten posisjonerer hun seg som en egalitær leder. I anmodninger til kolleger utenfor gruppa bruker lederen mer direkte formuleringer. I disse situasjonene trekker hun på sin egen rolle som leder for å legitimere anmodningen og framstår som mer autoritær.

I kapittel 6 undersøker jeg de implisitte svarnormene i e-postinteraksjon. Målet her er å identifisere svarnormene i e-postkommunikasjon og sammenligne dem med svarnormene i ansikt-til-ansiktssamtale. Studien viser at et e-postsvar gjennomsnittelig gis innen 28 timer. I tillegg identifiserer studien tre overordnede svarnormer. For det første er et svar påkrevet etter spørsmål og anmodninger. For det andre er svar på anmodninger om kommentar eller rettelser kun relevant dersom adressaten har noe å meddele. Uteblivende svar signaliserer samtykke og enighet eller at man ikke har noe å tilføye. For det tredje er svar på e-poster som er rent informerende ikke påkrevet, men forekommer som minimale responser, bekreftelser og korrigeringer. Studien viser at det gjelder andre svarnormer i e-post enn i ansikt-til-ansiktssamtale.

I kapittel 7 undersøker jeg hvordan deltakere i en distribuert arbeidsgruppe bruker e-postkopier. Mer spesifikt undersøker det hvordan forfatteren av en e-post adresserer et mangfold av mottakere, og hvilke teknikker de bruker for å skille mellom primære og sekundære mottakere. Studien viser for det første at det å kopiere inn mottakere tjener til å dele informasjon og til å bygge opp en felles kunnskapsbase. For det andre blir kopiering brukt til å fremme interaksjon og samarbeid mellom flere deltakere ved å skape nye og bygge ut eksisterende nettverk. For det tredje kan kopier også brukes strategisk, for eksempel til å skape identitet, bygge allianser, eller til å presse gjennom en beslutning med vitners nærvær.

Studien konkluderer med at det er utviklet spesifikke normer for e-postkommunikasjon. Å være en kompetent deltaker i e-postkommunikasjon i arbeidslivet, eller å utøve e-post-literacy, innebærer å forstå og orientere seg etter normer for å sende kopier, normer for å gi respons, og å kunne utnytte disse normene for ulike formål i en gitt institusjonell sammenheng, som for eksempel ved å utøve ledelse. Studien viser at distribuerte arbeidsgrupper kan være hierarkisk organisert i form av en sterk leder som hyppig sender e-poster, og på den måten kontrollerer og organiserer arbeidet i gruppa. Samtidig kan selve ledelsesformen være egalitær, slik den kommer til uttrykk gjennom lederens retoriske praksiser. Studien viser hvordan lederens metoder for å formulere anmodinger og skape relasjoner er bygget på nærhet og bidrar til å appellere til gruppesolidaritet. Lederen setter sin institusjonelle rolle som leder i bakgrunn, til fordel for en mer personlig og egalitær ledelsesstil. Dette kan bidra til å støtte det eksisterende bildet av skandinavisk ledelsesstil som typisk egalitær og demokratisk, en stil som skjuler eksisterende maktforskjeller bak positiv høflighet og mellompersonlig nærhet.

Studien har praktisk nytteverdi for ledere av distribuerte arbeidsgrupper og arbeidstakere som vil øke sin bevissthet om e-post som kommunikasjonsmedium. Studien er utført ved Handelshøyskolen BI i samarbeid med Det utdanningsvitenskapelige fakultet, UiO.

Abstract

This study examines authentic email interaction in the workplace. The main purpose is to identify the emergence of *email literacy* as developed in organizational email communication. More specifically, the study focuses on the emergence of communicative norms and rhetorical practices as they are expressed in email exchanges within a distributed group (Agenda) in a Norwegian telecom company. By a data driven approach the study aims at identifying established norms and routines of email interaction. Because an email is a seen as a hybrid mode of communication and includes features that may be associated with both the letter and the conversation, the emails in this dissertation are analyzed as both conversational turns and written texts. An email message is understood as a communicative action situated in a social and institutional practice. The study is conducted within a dialogical epistemology, and is methodologically carried out within the framework of discourse analysis. The analyses draw on the methodology of Conversation Analysis (CA), dialogical versions of speech act theory (SAT) and politeness theory (PT), and are informed by relevant work on email communication from both linguistics and organizational studies. Social network analysis is used to describe interactional patterns within the group. The study consists of four articles. Two of them examine email literacy with regard to interaction norms (chapter 6 and 7). The remaining two (chapter 4 and 5) examine literacy as leadership practices as they are performed linguistically in a virtual team.

Chapter 4 examines quantitatively how leadership is expressed through a virtual team's frequency of contact and email exchange pattern, and more specifically what kind of leadership actions the leader of the group performs. A social network analysis of the group's total messages shows that the leader sends the highest number of messages, has the most ties to the others in the group, produces the most requests in the group, and is in addition the one who produces the most minimal responses. These findings reflect that the group is hierarchically organized around a powerful leader who performs two important leadership functions. On the one hand she controls the group performance through frequent initiatives, invitations to meetings and informing messages sent to the group as a whole. These actions may be associated with a team management function. On the other hand, the findings reflect a leader who supports and appraises her team by frequent responses and acknowledgements. These kinds of actions may be associated with a team development function.

Chapter 5 elaborates the study in chapter 4 and examines how leadership is performed linguistically. Here, the leader's rhetorical practices are examined. The study shows that the leader invites to group identification by giving the group a positively loaded nick-name, using different kinds of narrating devices, and providing receipts and supportive acknowledgements. Furthermore, requests are produced with positive politeness strategies, something which presupposes common ground and familiarity. The leader backgrounds her institutional position in favor of building socio-emotional ties with the group and positioning herself as an egalitarian leader. In requests to group externals, the leader use more direct strategies and appears more authoritative. In these situations, she draws on her role as a leader in order to legitimize the request.

Chapter 6 examines the implicit norms of responding in email interaction. The main goal is to identify the norms of response-giving in email interaction and to compare these with the organization of adjacency pairs in conversation. The study shows that the responses in average were produced within 28 hours. In addition, the study identifies three general interaction norms; First, a response is conditionally relevant after questions and requests. Second, responses to requests for comments and corrections of a proposal are conditionally relevant only when there is something to report. Non-response signals acceptance of the proposal. Third, a response to non-requesting messages is not conditionally relevant, but occurs as minimal responses, acknowledging receipts and repairs.

Chapter 7 examines how employees in a distributed work group use email copies in networks of collaboration. It studies the *audience design* of messages with multiple recipients, analyzing explicit and implicit addressing devices used to appoint recipients as primary and secondary participants in the interaction. The study shows that copying in recipients serves to share knowledge of ongoing projects and to build up a common information pool. Furthermore, it is used to facilitate multi-party interaction and to build personal identity and alliances. Copies to third parties may also be used for reasons of social control, for instance in order to gain compliance or to put pressure on the addressee to conform to social norms of conduct.

In conclusion, the current study shows that specific common norms have evolved for the use of email. Email literacy involves understanding and orienting to the unwritten norms of sending copies, for giving responses and to exploit these norms for different purposes in a given institutional setting, as for instance to practice leadership. Furthermore, the study shows that virtual teams may exhibit hierarchical structures by means of the leader's frequency of contact and email exchange pattern, but also exhibit egalitarian leadership by means of the leader's rhetorical practices. The study shows how the leader's methods of performing requests and creating socio-emotional relations within the group contributes to promoting in-group solidarity, back grounding her institutional role as a superordinate and foregrounding a personal and egalitarian leadership style. This may contribute to support the existing picture of Scandinavian leadership style as typically egalitarian and democratic, a style which conceales existing power differences behind a veil of positive politeness and interpersonal closeness.

CHAPTER 1

Introduction

This study examines authentic email interaction in the workplace. The main purpose is to identify the emergence of *email literacy* as developed in organizational email communication. More specifically, the study focuses on the emergence of communicative norms and rhetorical practices as they are expressed in email exchanges within a distributed group in a Norwegian telecom company. By a data driven approach the study aims at identifying established norms and routines of email interaction. Email is viewed as a hybrid mode of communication and the email texts in the data collection are analyzed both as turns in written conversation and as written texts. The study is conducted within a dialogical epistemology, and is methodologically carried out within the framework of pragmatics. The analyses draw on methodology of Conversation Analysis (CA), dialogical versions of speech act theory and politeness theory, and are informed by relevant work on email communication from both linguistics and organizational studies. Social network analysis is used to describe interactional patterns within the group.

1.1 Background and research questions

Since email was invented in 1971, and launched in most of the western workplaces during the 1990s, it has become the most prominent medium for written communication at the workplace. It has to a great extent replaced the use of the telephone fax, memo and the traditional business letter (Louhiala-Salminen 1995, 1999, 2002). Communication at the workplace and in business is today predominantly carried out via email messages. The share of the fax is decreasing, and business letters are rare (Kankaanranta 2005b:76). The shift from traditional face-to-face meetings and telephone conversations towards an increased use of written communication has had enormous influence on how work is organized and how language is used to achieve different institutional goals. Email has made it far easier for workers to gain access to each other and has facilitated the possibility of distributed work and collaborating at a distance in virtual teams, and in the process it has challenged traditional management. Furthermore, commercial globalization, partly as a result of mergers of single companies into multinational enterprises, has resulted in more collaboration across national borders and an increased emphasis on communication skills.

Today, most companies acknowledge the importance of successful communication for doing business and good communication skills for leading teams as well as for collaborating in teams. Consequently, many companies give communicative skills priority when recruiting new employees (Louhiala-Salminen 1999:101). In the age of Internet, this also includes digital communication skills, or what I more specifically address in this study as *email literacy*.

Within the field of literacy research, scholars have been preoccupied with school literacies at the expense of examining literacy in workplace discourse (Dautermann & Sullivan 1996:ix). However, launching ICT in work life has changed the conditions for how work in general is organized and how people communicate more specifically. While users of different forms of CMC have adapted to new ways of communicating, organizations have adapted to the networked and wireless ways of organizing work. Whereas the organization, or the company, used to be the central node for carrying out tasks before the Internet age, the most important entity in the “global economy” is the network. This has created a new type of organization which has been called “the network enterprise” (Castells 2000:187). Working in the network enterprise requires new forms of literacies. Not only does it require communicative skills in the sense of developing and making use of social networks, appropriation of new media challenges established expectations with regard to communication and requires new forms of literacy (Østerud & Skogset 2008). When Internet and email were introduced to Norwegian work life, many users of email were instructed in how to use “the digits,” in the sense of knowing how to operate the bits of hardware and software (Lankshear & Knobel 2006). However, very few, if any, could predict its use in social practices. Many organizations provided formal guidelines for how to communicate appropriately, i.e. a netiquette, but few users seemed to be informed about such guidelines, or simply ignored them. Rather, users of email have brought (and bring) to the email medium their cultural practices and communicative competences acquired from different communicative events. Since email, as we will see, is a medium which shares characteristics with both face-to-face interaction and written texts (c.f. 2.2.1), this possibly involved importing rhetorical practices, interaction norms and conventions from conversational genres, as well as traditional written genres.

Despite increased emphasis on communication skills in work life, my impression is that many employees still lack confidence with regard to how emails are supposed to be designed appropriately (c.f. Grönning & Pedersen 2007). Furthermore, few studies in the field of computer-mediated communication (CMC) explicitly address email literacy by analyzing naturally occurring interaction data. Consequently, there is a need for examining authentic workplace email with an explicit focus on the actual practices and procedures which are involved.

The main purpose with the study is to examine the emergence of email literacy as developed in organizational communication. In general, the study examines two main aspects of email literacy, leadership practices (chapter 4 and 5) in a virtual team and general interaction norms for the use of email (chapter 6 and 7). In particular, the study attempts to answer the following four overall research questions:

1. How is leadership expressed through a virtual team's frequency of contact and email exchange pattern?
2. How is leadership carried out linguistically through email interaction?
3. What are the implicit norms of giving response to email questions, requests and to non-requesting emails?
4. How are email copies used in networks of collaboration?

Each of these general research questions are specified and addressed in four respective studies.

1.2 Email literacy

Literacy is a complex concept which has been studied in different disciplines concerned with reading and writing. According to Barton (2007), literacy is "a set of social practices associated with particular symbol systems and their related technologies. To be literate is to be active; it is to be confident within these practices" (Barton 2007:32). While literacy traditionally has been associated with the ability to read and write, as opposed to being illiterate, and viewed as a cognitive, neutral and universal competence, literacy researchers today emphasize literacy as a *social practice* and not necessarily a technical and neutral skill (Street 2003:77). Within the field of literacy studies, focus has shifted from understanding literacy as a capacity or ability you either have or lack (i.e. the "autonomous model"), towards viewing literacy as a social practice (i.e. the "ideological model"). Studies with a social approach to literacy are called New Literacy Studies (NLS), and include works from cross-cultural psychology (i.e. Scribner & Cole 1981), anthropology (i.e. Street 1984) and sociolinguistics (i.e. Heath 1983, Stubbs 1980).

Analyzing *literacy practices* involves analyzing literacy in the context in which it is acquired and used. The concept of literacy in the current study is primarily based on Scribner & Cole's (1981) study of the uses of literacy among the Vai population of northwest Liberia. They developed a conceptualization of literacy as a set of *socially organized practices*. According to Scribner & Cole (1981:236), literacy does not only involve knowing how to read and write in a technical sense, but the ability of "applying this knowledge for specific purposes in specific contexts of use." Scribner & Cole (1981:236) emphasize that the kinds of skills associated with literacy are closely interwoven with context, including technological aspects.

Literacy scholars also distinguish between *literacy events* and *literacy practices* (Street 2003:77). *Literacy events*, on the one hand, are "the particular activities where literacy has a role" (Barton 2007:37). For instance, a series of literacy events involving ICT in a normal working day for an employee in a distributed work group may possibly start by reading email, perhaps followed by reading news on the Internet. The next two hours she might write on her project while simultaneously interacting and discussing with co-workers by MSN or email. When arriving back home, she might send a text message to her project-leader informing that she will be out of office the next day, etc. *Literacy practices*, on the other hand, are "the *general cultural ways of utilizing literacy* which people draw upon in a literacy event" (Barton 2007:37 [my emphasis]). The current study aims at analyzing literacy practices.

Within the NLS-tradition, literacy is always situated and meaning making processes are always dependent on cultural meanings implicit in the context. This implies that there is no literacy superior to other forms of literacy; rather there exist different forms of literacies side by side in different cultural contexts.

The current study examines literacy practices as they emerge in emails sent between members of a distributed team. Based on Scribner & Cole's (1981) literacy approach, *email literacy* is viewed as knowing how to design email through different genres with regard to one's specific role in the activity and with the addressee in mind. Due to the many possible (and complex) participant relations within email exchanges, as we will see, designing an email message for multiple recipients might, for instance, be one aspect of email where literacy comes into play. Email literacy is more specifically understood as norms associated with email interaction. Email literacy is primarily examined as it is expressed through email message exchanges, and is operationalized as interaction norms and rhetorical practices. As we will see in the next section, norms are approached in an ethnomethodological sense (c.f. 1.3, 3.2.1), as conventionalized expectations of verbal interaction.

1.3 Analyzing norms of social interaction

One fundamental assumption in this study is that social interaction consists of interactional units such as speech acts, utterances and turns, and that in producing, recognizing and interpreting these units, actors orient to implicit interactional rules, or norms. Inspired by Ethnomethodology and Conversation Analysis (CA) interaction norms are viewed as organizing principles which make it possible for actors to produce recognizable, predictable and accountable actions. One example is the norms of turn-taking in conversation which create orderliness where we would expect chaos (Taylor & Cameron 1987). This activity involves literacy.

In CMC, norms may be established in two different ways, having different ontological status. On the one hand, norms may be explicitly established from “above, “for instance by some authorities’ formulation of a netiquette in an online community. Norms of this type are called *regulative* norms. On the other hand, interactional norms also develop from “below,” created by the actors themselves. It is norms of this type, so called *constitutive* norms, which are the object of study here.

The approach to analyzing norms is inspired by ethnomethodology. In the ethnomethodological sense (3.2.1), norms are not like causal and pre existing laws determining and regulating action, rather they are reflexively constitutive in the sense that they are developed and maintained through interaction:

> Within his [Garfinkel’s] viewpoint, the common norms rather than regulating conduct in pre-defined scenes of action, *are instead reflexively constitutive of the activities and unfolding circumstances to which they are applied* (Heritage 1984:109).

On the one hand, interlocutors may maintain and develop the perceived normal course of the scene by acting in accordance with the norm. On the other hand, they also use this same norm to notice, interpret and sanction departures from its dictates. The norm is thus "*doubly constitutive* of the circumstances it organizes" (Heritage 1984:107).

Interactional norms involve actors' expectancies of what is normal and conventional behavior. A norm may encapsulate *regularities* and *structures* (Taylor & Cameron 1987:10). Social behavior which is performed according to the norms will appear regularly and unmarked, while violating behavior will be marked as *deviant*. The ethnomethodological principle for analyzing norms is to identify the *deviant cases* or situations where actors orient to, or are held *accountable* for, the breach of a norm.

Ethnomethodology offers an account of how social order is developed and maintained by actors' orientation to norms. However, this tradition does not provide any epistemology of how norms are developed within historical and technological changes. When new communication technology enters work life, we might ask how the technology influences the emergence of new norms. What is the relation between the use of technology (ICT) in communication and an eventual change of language use (and of social structures)? Throughout the history of CMC-research scholars have approached norms as either influenced by technology or by social practices, referred to in literature as *technological determinism* and *social determinism*, respectively (cf. Postmes & Baym 2005). In order to bridge these views, scholars within CMC suggest an alternative approach which consists of examining the reciprocal and recursive relation between media and communication in organizations over time (Yates & Orlikowski 1992, Baym 1998, Nickerson 2000). While these scholars associate this process with Giddens' (1984) structuration theory and the concept of appropriation, the current study applies a *dialogical approach* (Linell 1998), which seems more relevant for the study of verbal interaction and in addition makes many of the same points about the relation between norms and practices.

1.4 A dialogical approach

The current study is conducted within the epistemology of *dialogism*, which is associated with the thoughts of the Russian literary scholar and philosopher Mikhail Bakhtin. The terms "dialogic" and "dialogism" are concepts which originally refer to Bakhtin's philosophy of language, as expressed through Bakhtin (1984), Bakhtin (1986) and Volosjinov (1973)[1].

Dialogism is primarily a theory about the "reflexive relations between discourse (and cognition) and contexts of various kinds" (Linell 1998:9). The theory stresses the primarily interactional and contextual quality of language use, action and thinking. The contextual quality is reflected in two ways. On the one hand, an utterance or a word is shaped by the "speaker" within the context. On the other hand, it is designed for the addressee. This duality was emphasized by Bakhtin, who characterized the word as a "two sided act":

> (…) Orientation of the word toward the addressee has an extremely high significance. In point of fact, *word is a two-sided act*. It is determined equally by whose word it is and for whom it is meant. As word, it is precisely the product of the reciprocal relationship between speaker and listener, addresser and addressee (…). Each and every word expresses the "one" in relation to the "other". I give myself verbal shape from another's point of view, ultimately, from the point of view of the community to which I belong. A word is a bridge between myself and other (Volosjinov 1973:86, [my emphasis]).

The interactional quality of language use involves the notion that every utterance intrinsically embodies the quality of "turning to someone," i.e. "addressivity" (Bakhtin 1986:99). In this sense, every utterance also has a responsive and fundamentally social character.

In addition to viewing utterances as both created by and composed of the local context, dialogism emphasizes the more global *sociocultural embeddedness* of cognition and communication. This involves stressing the dynamic relationship between the local and the global context, between the immediate situation and the global cultural practice; the living tradition. In this sense, the dialogue exhibits a "*double dialogicity*"; it is 'dialogical' both in the local contexts of interaction and within the more global sociocultural practices established by a long tradition of such interactional practice (Linell 1998:54).

The dialogist epistemology serves as an account of how interaction norms emerge and develop through time as sociocultural products. The epistemology may be associated with a *social constructionist position*, viewing linguistic structures, cultural routines, and norms as somehow pre-existing, but simultaneously interactionally re-generated, traded down and reconstructed historically and socioculturally. In this sense, norms exist prior to individual

[1] The work of Volosjinov (1973) has traditionally been attributed to Bakhtin. However, there exist contradicting views concerning the authorship (c.f. Linell 1998:49).

interactions[2], but would not exist without a historical continuity of interactions. According to this position, social structures are "(re)created, tried out, tested, negotiated and modified every time they are instantiated and drawn upon" (Linell 1998:60).

> Social constructionism, in this form, emphasizes two dialogically related phenomena: the constructive and reconstructive practices in interactions, and the sedimented routines and cultures. The latter are global structures superimposed on interactions and embodied in traditions of relatively long-term continuities of practices (cultural traditions), these long term practices building systems of sedimented, cultural knowledge' (Linell 1998:61).

One chapter in the current study applies the methodology of Conversation Analysis (CA). As will be presented and discussed in 3.2.1, orthodox CA scholars leave out the sociocultural context and rather stress the local, sequential context. However, in recent years, many practitioners in the study of institutional interaction combine the methods of CA with ethnography and context studies (Drew & Heritage 1992, Arminen 2005). As such, the current study draws on CA-methodology, emphasizing, however the "double dialogicality" of the dialogue (Linell 1998), and the impact of both the social and cultural context on ongoing and new interactions, as well as the impact of local interactions at the more aggregate level.

Dialogism as epistemology and as an analytical framework may be associated with a functional paradigm of linguistics as opposed to a formalist paradigm. Within a functional approach, focus is on the communicative act, the communicative events, communicative meaning and functions (Schiffrin 1994:21). Without being explicitly connected, elements from Bakhtin's dialogism harmonize with modern research into written and spoken discourse. For instance, approaches dealing with *addressivity* in slightly different terms are Goffman's theory of "hearer roles," i.e., his "participation framework" (Goffman 1981:154), Clark's theory of "audience design" (Clark 1992, 1996), and Sacks's notion of "recipient design" (Sacks, Schegloff, & Jefferson 1974). Another important dialogical principle in CA is that of the *next-turn proof procedure* which implies that an utterance has to be analyzed as part of the previous and subsequent utterance. One can not fully understand an utterance if it is taken out of its sequential context. The practical analytic framework of the thesis, including the two dialogical principles (i.e. the principle of addressivity and the next-turn proof procedure) will be presented and discussed more in detail in chapter 3, and applied in the articles.

[2] The dialogist epistemology viewing norms as existing prior to individual interaction seems to contradict the ethnomethodological view on the relation between norms and social action (c.f. 1.3, 3.2.1). It is beyond the scope of this thesis to resolve this fundamental philosophical dilemma. However, I view Linell's outline of the dialogist epistemology as an elaborated version of ethnomethodology and CA by explicitly including socio-cultural perspectives. Central for both dialogism and ethnomethodology is the view that human behavior is not determined by norms in the sense of natural and universal laws. Rather, norms are flexible and constantly and dynamically constituted and reconstituted through social activities (c.f. Skovholt & Svennevig 2005).

1.5 Discourse analytical methods

Email is a flexible medium which is used in a range of different activities. In the workplace we use email to discuss documents, to invite to meetings and to distribute documents. The different modes of using email have contributed to developing both oral and written email genres (c.f. Kankaanranta 2005a, 2005b). Research on email language seems to agree that the email medium makes possible *hybrid* modes of communication which are characterized by features typical of both written and spoken discourse (c.f. 2.2.1). Although email basically is a written medium, it has certain features that make it comparable to oral conversation. First, email is interactive. The speed and ease of delivery makes it possible to exchange messages with just a small time lapse, involving a conversational and informal style. Second, email messages may involve continued interchanges, or threads of messages, organized in turns and sequences. However, the difference between email and face- to-face conversation is that the participants do not share a common temporal and physical context, i.e. while face-to-face conversation is synchronous by nature; email interaction is asynchronous and involves types of messages which do not always require a response. Finally, the technology of email facilitates multiparty interaction at distance by copying, forwarding and attaching messages to multiple recipients.

In order to capture the hybrid character of email discourse, i.e. email as written text and email as a turn in a written dialogue, the current study applies different discourse analytical methods which are framed within a dialogical epistemology. On the one hand, emails are described as conversational turns with reference to the principles of oral conversation. In these, Conversation Analysis (CA) is applied to identify norms of email interaction. On the other hand, since an email is also a written text and does not always constitute a conversational turn which receives a response, the study uses elaborated versions of Speech Act Theory and Politeness Theory to identify rhetorical practices and forms of social positioning within the email texts themselves.

1.6 Outline of the study

This thesis consists of eight chapters and includes a collection of four individual articles. Chapter 2 presents previous research in the field of CMC. This chapter frames the previous research within the prevailing epistemological trends. Chapter 3 presents the research design and methodology used in analyzing email interaction. Chapter 4 examines literacy practices as expressed through the group's social network and the leaders' actions. Chapter 5 examines how leadership is linguistically carried out in a virtual team. Chapter 6 examines literacy with regard to the norms of responding in email interaction and chapter 7 examines the norms of copying in participants. Chapter 6 is already published in *Journal of Computer-Mediateed Communication* (Skovholt & Svennevig 2006), while chapter 7 is going to be published in *The Handbook of Computer-Mediated Communication* (Skovholt forthcoming). In chapter 8, I summarize the findings and discuss the contribution of the study.

CHAPTER 2

Previous Research on Email Interaction

The main focus in this thesis is email literacy in the workplace. Since email literacy is analyzed in an organizational setting, the four articles in the study draw on findings from organizational as well as linguistic studies. This chapter presents the most relevant studies on email within these fields. The current study focuses primarily on email interaction. However, studies focusing on different forms of text-based computer-mediated communication (CMC) have become highly relevant both in order to interpret data and in order to contrast email interaction to other forms of electronic written interaction. Hence, when relevant, this chapter reviews studies on different forms of text-based CMC, in addition to email studies.

First, the chapter presents the linguistic studies. Then the organizational studies are reviewed. The review draws attention to a development in research focus from the earliest to the latest research on computer-mediated communication. Finally, the chapter concludes by positioning the current research in the field of CMC.

2.1 Introduction

Over the past 20 years, CMC has become a vast field of research, including many different disciplines which focus on different forms of (primarily text-based) computer-mediated communication. Computer-mediated communication is the discourse produced when human beings use computers to interact, i.e. engage in socially meaningful activities. It may involve sound and visual elements, as in video- and tele-conferences, as well as written and graphic elements, as in text-based messages typed on a computer keyboard and read on a computer screen, either immediately (synchronous CMC) or at a later point in time (asynchronous

CMC). Text-based CMC may take many forms, such as computer games, instant messages, discussion groups and email (Herring 1996, 2001, 2004).

The field of CMC is interdisciplinary, involving scholars from sociology, social psychology, organizational science, computer science and linguistics. The body of research within the field of CMC has in general developed from focusing on the nature of CMC and the impact of technology for human communication, to investigating the user's competence and how human communication actually is carried out on the computer screen in different institutional settings. The current study represents the last category in this development.

The earliest studies on CMC emerged from students of information systems and organizational behavior. They focused primarily on the nature and efficiency of CMC in human interaction, compared with face-to-face interaction. Typically, the early studies aimed at identifying the *general characteristics* of email (and CMC in general). Commonly held ideas were, for instance, that email is *informal* (Spears & Lea 1992), that email helps participants to interact in a less constrained way and encourages personal disclosure (Sproull & Kiesler 1986). On the contrary, CMC was even viewed as *impersonal* (Daft & Lengel 1984, 1986).

Despite the fact that CMC is text-based and produced almost exclusively from linguistic signs, linguists entered relatively late into the field of CMC (Herring 1996:3). Linguistic studies of CMC were introduced by Baron (1984), Murray (1988) and Ferrara, Brunner and Whittemore (1991). In Scandinavia, Severinson Eklundh (1986), and later on Hård af Segerstad (2002), introduced the linguistic approach to studying CMC. In the wake of these studies, Herring's 1996 book, *Computer-Mediated Communication*, became a classic and contributed to establishing the field of Computer-Mediated Discourse Analysis (CMDA). The study of Computer-mediated discourse (CMD) became a specialization within the broad interdisciplinary study of CMC. It is distinguished "by the focus on *language* and *language use* and by the use of methods of *discourse analysis* to address that focus" (Herring 2001:612). Opposed to the early generalizations about CMC, scholars within CMDA aimed at describing CMC as a much more complex and context sensitive communication mode (Herring 2001:613). Except from a study on development of email literacy in L2 learners' writing to authority figures (Chen 2006), literacy has not been the explicit focus for these researchers[3].

[3] However, email literacy has been in focus of studies within pedagogy. For instance, Cohen & daSilva (2006) show how email may be a pedagogical tool to facilitate pupils' literacy (by means of increasing pupils' orthographic skills).

CMC research involves a great variety of approaches to studying different forms of CMC. The current review differentiates between *linguistic studies*, *genre studies* and *organizational studies*. The *linguistic studies* involve grammatical studies focusing on the characteristics of the electronic language (focusing on typography, orthography and grammar), text-linguistic studies focusing on email's internal structure, and interactional studies focusing on sequences and turn-taking. The *genre studies* focus on email as social action (genre) manifested in an institutional context. The section of *organizational studies* involves studies in sociology and discursive psychology, and focuses on leadership in virtual teams and on the social impacts (or implications) of email in organizations.

2.2 Linguistic approaches to CMC

Within linguistic approaches to email, scholars have attempted to characterize the language and style of CMC/email by analyzing the distribution of lexico-grammatical features and comparing the results with features associated with written and spoken language. Email has also been examined with text-linguistic methods, such as internally organized written texts. Finally, CMC/emails have been studied in an interactional perspective as conversational turns.

2.2.1 The hybrid character of the electronic language

When text-based CMC entered the workplaces, the question among linguists (and among people in general) was how the technology affects language and what the characteristics of the language which appeared online actually were. In search of terms for the online language, linguists have proposed using the words "electronic language" (Baron 1998), "netspeak" (Crystal 2001), "e-style" (Hård af Segerstad 2002), or simply "email style" (Baron 2002).

In the early phases of email research, scholars typically attempted to grasp the "nature" of the electronic language by comparing it with oral and written language (Ferrara et al. 1991, Uhlíøvá 1994, Maynor 1994, Collott & Belmore 1996, Yates 1996, Sims 1996, Baron 1998, Gains 1999), and by identifying special features of orthography, typography and grammar in electronic texts (Murray 1990, Crystal 2001, Gimenez 2000, Hård af Segerstad

2002, Waselesky 2006). In general, this early research on email language seems to agree that email discourse (as well as other forms of computer-mediated written interaction) is characterized by features typical of both written and spoken discourse.

The two major linguistic studies on the electronic language (to date) are Collott & Belmore (1996) and Yates (1996). Drawing on Biber's (1988) studies of differences between spoken and written texts, Collott & Belmore (1996) and Yates (1996) analyze spoken, written and computer mediated texts with respect to linguistic variables such as vocabulary type/token ratio, lexical density, and use of particular kinds of grammatical categories, such as pronouns and modal auxiliaries. Both studies compared their electronic corpus with the same spoken and written database; the 500 000-word London-Lund corpus of spoken English and the one-million-word Lancaster-Oslo/Bergen corpus of written English. Collot & Belmore (1996) examined electronic mail on Bulletin Board Systems (BBSs), whereas Yates (1996) examined the computer conferencing/listserv-system (CoSy)[4]. Their results showed that electronic language approximates both writing and speech depending on which linguistic variable is measured. For instance, lexical density approaches written style whereas pronoun use is more in line with spoken style. However, both studies emphasize that CMC is heterogeneous and 'affected by the numerous social structural and social situational factors which surround and define the communication taking place' (Yates 1996:46).

Another classical study in the field is Baron (1998). Posing questions such as: "Is email a variety of speech? What important properties does it share with writing? Does it have emergent qualities that are unlike those typifying speech or writing?" Baron discusses email as a (new) communication genre. In her attempt to classify email in relation to written and spoken language, she developed four dichotomous models (social dynamics, email format, grammar and style) divided into a representative set of variables. Baron (1998) shows how each variable functions prototypically in written and spoken language, and illustrates, for instance, that while face-to-face interaction allows for much time delay, writing (and prototypical email) allows for much time delay, but also allows for much more rapid feedback than traditional writing (Baron 1998:151). She also emphasizes the difference that while speech is not edited, writing (and prototypical email) is (or has the possibility to be) edited (Baron 1998:152). Baron finally finds an emerging linguistic profile, referred to in Table 1, below:

[4] Technically, neither Collot & Bellore (1996) nor Yates (1996) examined email messages explicitly. Furthermore, their corpus consists primarily of one-to-many dialogues. However, the line between them and email may be described as a function of technology or institutional organization as it is a difference in language style (Baron 1998:146).

Linguistic Component	**Email Most Like**
Social Dynamics	predominantly writing
Format	(mixed) writing and speech
Grammar	
Lexicon	predominantly speech
Syntax	(mixed) writing and speech
Style	predominantly speech

Table 1. Overall linguistic profile of email (Baron 1998:155)

Baron's Table (1) shows that it is impossible to draw a clear cut distinction between the spoken and written mode in email. Baron (1998) concludes by claiming: "Like beauty, the linguistic character of email resides mainly in the eye of the beholder" (Baron 1998:161) and "email is a communicative modality in flux" (Baron 1998:162). The reasons for these claims, Baron (1998) addressed in the beginning of the article: "Email is more a moving linguistic target than a stable system, thereby complicating the problem of constructing a unified grammar of email. Three major sources of fluidity in email bear note: evolution of the *technology*, growth in *usership*, and partial *maturation* of the genre" (Baron 1998:144). Baron finally emphasizes that one cannot make linguistic generalizations that "apply to all age groups and social cohorts" (Baron 1998:145). The language used in emails, or the email style, may not be identified as one universal style of writing, but varies in form and function according to different communicative purposes and settings. In her latest book (to date) on CMC, Baron (2008) goes even further and concludes:

> Trying to characterize email style with a "one size fits all" definition is about as meaningless as describing an "average" American meal: meatloaf or minestrone? Potato pancakes or pad thai? Cola or cappuchino? By now, email has become sufficiently domesticated, at least in the United States, that its style and content is as diverse as the people using it (Baron 2008:16).

More recent studies, as for instance Hård af Segerstad (2002), investigates how written language (email language) is adapted and developed in the electronic medium in order to fit the contextual factors which are embedded in the communicative practices, such as genre, goal of interaction, relationship between communicators etc. Her study involves a comparison of three different modes of CMC; email, web chat, instant messaging (IM) and SMS. Comparing email letters from citizens to the city council in Göteborg with written letters to the same council, she identifies a number of linguistic features characteristic to the medium[5]. Hård af Segerstad found that the styles in her email materials ranged from being very formal to highly informal. Characteristic features in the email were deletion of subject pronoun, abbreviations, non-normative and informal use of punctuation marks, sentences in lower case and occasional use of emoticons. Email language differed from the other modes of communication by not including features such as "all capitals", "mix of lower case and capitals", "repetition of letters and words", "consonant writing", asterisk" and "addressivity markers" (Hård af Segerstad 2002:257). Hård af Segerstad (2002) concludes with two interesting observations. First, "the more synchronous the mode, the more features it shares with spoken face-to-face conversation" (Hård af Segerstad 2002:241). Finally, confirming Baron's (1998) assumption, she states that the goal of communication influenced how messages were formulated.

Also the business communication researchers and applied linguists Nickerson (2000) and Luohiala-Salminen (2002) investigated linguistic (interpersonal) features in emails. In the genre of exchanging information, Nickerson (2000) identified the following interpersonal features as private verbs (such as "think" and "know"), first and second person pronouns, contractions and abbreviations, hedges, emphatics, block capitals and exclamations. Some of Nickerson's (2000) findings correspond with Hård af Segerstad's (2002) findings, such as contractions, abbreviations and non normative use of punctuation marks (included exclamations). Also Luohiala-Salminen (2002) found features of conversational style in internal email messages in a multinational corporation. These examples show that features of spoken language exist in the electronic medium. Like Hård af Segerstad (2002), Nickerson (2000) emphasizes that these features were characteristic of the given genre, and that other genres most likely will show features typical of written communication (Nickerson 2000:168-169).

Even though scholars such as Hård af Segerstad (2002) and Nickerson (2000) identify non-normative use of punctuation marks as one of the features characteristic of the email medium, the studies neither examine the *frequency* nor the *pragmatic function* of particular punctuation markers, such as, for instance, exclamation marks. The CMC-researcher Waselesky (2006) provides a deeper understanding of the use of exclamation marks. According to her, a common view has been that unconventional and frequent use of exclamation marks functions as "markers of excitability", often associated with female

[5] Hård af Segerstad also analyzes language use in web chat, instant messaging and mobile chat. For the purpose of the current study, this review primarily focuses on the email analyses.

"instability" and "emotional randomness" (Waselesky 2006:1). Waselesky's (2006) quantitative study on gendered use of exclamation markers in electronic discussion lists does indeed find that females use exclamations marks significantly more often than do males. However, based on her classification scheme, exclamations functioned as *markers of a friendly interaction* 32% of the time and to *emphasize intended statements* 29.5% of the time. Only 9.5% of the exclamations fell into the "emotional" ("exitable") categories (Waselesky (2006:8). Interestingly, in contrast to the notion that exclamation points function solely as markers of excitability, the study suggests re-considering the negative labels that have often been associated with female communication style. Individuals of both genders "can convey "friendliness" via the (non-excessive) use of exclamation points" (Waselesky 2006:11).

Interestingly, as mentioned above, scholars focusing on the linguistics of email seem to conclude their study by supporting Baron's (1998) view in stating that the goal of communication influences the stylistic register of the messages. This is empirically evidenced in the linguist, Gain's (1999), study comparing text features of email in two different settings; in commercial emails and in academic emails. The commercial emails seemed, on the one hand, to have evolved a consistent style. They lacked openings (salutations), used closings as thanks and name-only, involved a clear subject and were written in a semi-formal consistent style, close to the conventional stylistic register of the business letter. There was no evidence that the communicators included features from conversational discourse in their emails. On the other hand, the academic emails in general contained some form of opening greeting (salutations), involved a more creative use of the subject field "in order to overcome the sterility of the medium", and in great contrast to the commercial emails, academic emails contained a great diversity of stylistic register, from very formal, through the semi-formal and to the informal style. The communicators incorporated many features from conversational discourse, such as adjacency pairs, which made the communication more interactive and dialogical. Gains (1999) concludes by relating the contrast between the email style in the two settings, and within the academic setting, to genre. He emphasizes that his corpus as a whole does not constitute a single genre:

> […] it neither represents a single discourse community, nor encompasses communicative events which share a common purpose. By Swales definition (Swales 1990:58), the data represents a random selection of communicative events that have a common medium of transmission as their only unifying feature (Gains 1999:10).

As the discussion of the previous studies suggests, electronic language is not a unitary linguistic system but needs to be differentiated according to technological and situational factors. Even within the single type of CMC studied here, namely email, there is vast linguistic variation.

The review of linguistic studies has shown so far that whereas the early studies on CMC searched for *universals*, subsequent and recent studies aim at distinguishing between different types of uses of CMC and considering situational and technological *context*, such as for instance communicative purpose, as important factors with regard to how language in particular and digital genres in general develop. However, as mentioned above, some of the early studies on email language *do* emphasize that the conventions of both language and genres are still evolving, something which make it difficult to characterize email as one typified mode of communication (c.f. Murray 1990:46, Baron 1998:165). However, Baron seems to go too far when she claims that describing email style is as hopeless as describing an average American meal. This comparison seems to suggest that there exist no email style or genres at all (Baron 2008:16), something which appears too particularistic and relativistic in my point of view. If email really has become domesticated, in the sense that it has become a normal component of daily living (Baron 2008:3), this would rather mean that people have developed some common conventions and norms of use. The aim with the current study is to show how conventions and norms of email writing and interaction in fact *have* been established. We will also see examples of this in the subsequent sections (c.f. 2.2.2 and 2.2.3 and 2.3).

However, norms of CMC may change over time. Some of the characteristic of email language, which were described in the early research, are perhaps not so prevalent anymore. Furthermore, we can expect that other conventions may change in the years to come. The review so far has, in addition, indicated that the notion of genre has fruitfully been included in studies on company-internal email, something which we will return to in section 2.3.

2.2.2 Text structure

Email messages have been studied as internally-organized written texts. Herring (1996) uses insight from text-linguistics and identifies structural regularities and gender differences in Internet mailing lists. She compared the message structure of the two different mailing lists;

the LINGUIST list (which included 64% male subscribers) and the WMST ("Women's studies", including 88% female subscribers). By dividing the messages into macrosegments ("a functional constituent of the text at a macro- or global level of organization"), she found a limited set of recurrent textual-pragmatic functions within the message's main moves: epistolary convention (salutations), the introduction (preamble, link to previous message etc.), the body (express views, express feelings etc.), the message closing (apology, appeal etc.) and epistolary conventions (signature etc) (Herring 1996:86). A quantification of these functions showed that signatures were the most frequent feature of the electronic messages in the corpus. Furthermore, based on the preferred realization of the three main moves (introduction, body, close), Herring proposes the following idealized three-part schema for electronic messages posted in both discussions:

1. link to an earlier message
2. expression of views
3. appeal to other participants

However, Herring identifies differences between the two discussion lists. The participants in the WMST-list (mostly women) seem to favor an *aligned varian*t of the schema, while the participants in the LINGUIST-list (mostly men) seem to prefer an *opposed variant* (Herring 1996:92f). Herring (1996) emphasizes that this finding is not the same as claiming that men are not interactive, nor women interested in exchange of information. Rather, men and women present different styles of interaction and information exchange (Herring 1996:104).

In order to identify how email messages are structured, some scholars have attempted to identify the opening and closing conventions in email messages (Herring 1996; Hård af Segerstad 2002; Kankaanranta 2005b). Hård af Segerstad (2002) examined how different categories of salutations and signatures were distributed in email messages. In her material, 48% of the total number of messages were introduced with a salutation and signed with the sender's name. Only 5% included a salutation, but were not signed with a signature. 22% of Hård af Segerstad's emails included neither salutation nor signature (Hård af Segerstad 2002:114). In comparison, only 13% of Herring's messages were introduced by a salutation, while 80% included a closing signature (Herring 1996:86).

In contrast to Hård af Segerstad's study of salutations and signatures, Kankaanranta's (2005b) study of salutations and signatures in multinational corporate emails analyzes both the sequential context and the number of recipients in the messages. In Kankaanranta's (2005b) study, salutations with first names in salutations to single recipients (Hello + first name) were the most prevalent. In messages to multiple recipients, salutations mostly stayed on a general level (Hello, Hello everybody/all), with a tendency to specify recipients such as "friends." Her data additionally showed a preference for first name signature to single recipients and full name signature to multiple recipients (Kankaanranta 2005b:358). An interesting observation in Kankaanranta's study was that the salutation could be missing if the message was:

- a Postman message, typically textless or with little text, attaching documents or appending messages;
- a Postman message commenting on the writer's own previous message;
- a Noticeboard message with a strict form such as an agenda, a press release, etc.; or
- a Dialogue message giving a direct response to a message sent shortly before, including automatic reply messages (Kankaanranta 2005b:349)[6]

Furthermore, Kankaanranta (2005b) emphasizes that even the Dialogue genre had frequent application of salutations. It was used in 86% of the Dialogue messages. However, the salutation move was absent in 14% of the Dialogue messages. In these instances, the response time was fairly short, implying that immediacy played a role (Kankaanranta 2005b:360). This observation has also been made by the business communication researcher, Grønning (2006:168).

In Grønning's (2006) study of "The person behind" in email correspondence between customers and employees in an insurance company ("Codan"), only 22% of the messages were initiated by salutations. Of these, 61% used salutations like "Hi" and "Good morning," signaling solidarity, while 39% were more formal, signaling distance and independence by using "to whom it might concern" etc (Grønning 2006:162). In accordance with Hård af Segerstad (2002), Grønning (2006) assumed that the communicative goal would have influenced the salutation forms used by customers in their email messages to the insurance company. However, in her data, the customers used a variety of forms in messages with similar communicative goals, such as cancellations of insurance. In such messages, salutations ranged from signaling distance to signaling solidarity ("To whom it may concern", "Hi", "Dear Codan!" etc.).

Herring (1996) explains the relative lack of epistolary conventions by the fact that the header which includes "to" and "from" lines automatically adds information about the sender

[6] Kankaanranta (2005a, 2005b) identified three general email genres, the Postman, the Dialogue and the Noticeboard genre. The notion of genre and these three genres will be presented more thoroughly in 2.3.2.

and receiver. However, the general tendency is that the users sign their messages at the end of the message. According to Herring this suggests that the users treat them as written correspondence (Herring 1996:87). In line with Herring (1996), Hård af Segerstad (2002) compares emails with traditional letters, but concludes that norms of email writing are still in the process of being established and that people are uncertain about what convention to use (Hård af Segerstad 2002:119). Kankaanranta, on her side, claims with more certainty that users of email do regard it as a letter. She writes: "In the same way as the recipient of an English letter or fax needs to be signed, so does the writer of an email message greet the recipients and sign off" (Kankaanranta 2005b:358).

As we have seen, the studies on signatures seem to indicate that users of email prefer to introduce an email message with a salutation, and end it with a signature. However, it could be questioned whether salutations are more frequently used in company internal messages (as in Kankaanranta's study) than in company external messages between customers and employees (as in Grønning's 2006 study). Rather than approaching greetings quantitatively, the current study analyzes the communicative function of greetings. Salutations are analyzed as addressing devices, for instances designed to address individual recipients in messages to multiple recipients.

2.2.3 Interaction norms

Norms of email interaction, such as turn-taking rules, sequential structure and response norms, have to some extent been examined in CMC-studies which implicitly or explicitly base their analysis on knowledge from CA and ethnomethodology (Baym 1998, Kalman, Ravid, Raban & Rafaeli 2006, Markman forthcoming). In general, research on CMC grounded on the CA-tradition involves studies on turn-taking procedures and interactional coherence in text-based conversation (Herring 1999, Garcia & Jacobs 1999, Sean Rintel et al. 2003, Markman forthcoming, Panayametheekul & Herring 2003). By comparing chat interaction with the *turn-taking rules* (Sacks et al. 1974) of traditional conversation, these scholars show that common features of chat, for instance, are disrupted turn adjacency (Herring 1999), preference for selecting next speaker by addressing him/her explicitly, rather than self-selecting (Panayametheekul & Herring 2003) and organizing actions through a particular threading strategy (Markman forthcoming). Markman's study also argues that the transition relevance place (TRP), the first place where a speaker can start a new turn, is more nebulous in chat-conversation than in traditional conversation. Of special interest for the current study is Markman's observation that chat posts formulated as questions are more likely to receive responses.

The *norms of responding* in computer-mediated interaction were first examined by Severinson Eklundh (1986). She investigated the communicative potentials of the computer-based messages system COM. The underlying assumptions of the study were that a great variety of responses in an exchange "is a sign of the potential interactivity of a medium and a high degree of channel presence" (Severinson Eklundh 1986:48). By identifying the basic structural differences between computer-mediated dialogues and face-to-face dialogue, she found that electronic dialogue consists of an overall two-part structure and lacks a terminating and evaluating third-move (Severinson Eklundh 1986). Whether or not a third move is lacking in email interaction, is one of the issues in chapter 6 in this thesis.

A recurring question in previous research on response norms is the significance of delayed or absent replies to messages. A study which explicitly addresses this issue, although in SMS-interaction, is Laursen (2005). Interestingly, Laursen (2005) identifies a strong obligation to reply quickly to text-messages among Danish adolescents. Drawing on CA her study reveals that both requesting- and non-requesting text-messages receive a response, and un-answered messages are treated as deviant cases. An unanswered message is interpreted as rudeness, and the recipients are held accountable by being sent reminders (Laursen 2005:1).

Another study that explicitly applies CA concepts to the issue of delayed or absent response, is Baym (1996). By drawing on Pomerantz' (1984) study on agreements and disagreements in conversation she identifies structural features of agreeing and disagreeing messages in a newsgroup at Usenet, called rec.arts.tv.soaps (r.a.t.s.). Baym (1996) emphasizes that our verbal behaviors are shaped by media possibilities and constraints and, moreover, that the ways in which language activities are constructed reflect the contexts in which the discourse is embedded (Baym 1996:343). Therefore, delays in the discussion group's interaction are merely "responses to the asynchronous written medium" rather than a signal of a dispreferred response (Baym 1996:343). Implicitly, Baym (1996) suggests that electronic interaction establishes other expectations and requires other norms than the oral medium does. Consequently, one cannot assume that the meaning of specific properties of conversation will be transferred directly to CMC (Baym 1996:319).

Studies of how people actually respond in various forms of computer-mediated communication have been conducted in many different contexts, for instance in emails between customers and organizations (Mattila & Mount 2003, Strauss & Hill 2001), between business partners (Pitkin & Burmeister 2002, Tyler & Tang 2003), in discussion groups on Usenet (Jones, Ravid & Rafaeli 2004) and in questions-answers in the "Google Answers" website (Rafaeli, Raban & Ravid 2005). Most of these studies use quantitative methods and seem to agree that online responses are created within a short period of time. This observation is supported by Kalman, Ravid, Raban & Rafaeli (2006), who measured time latencies in CMC interaction in three distinct datasets ("Enron emails", "University forum" and "Google Answers"). Inspired by classic research on rhythms, turns, and pauses in traditional conversation, such as Sacks et al.'s (1978) model for turn allocation in conversation, Kalman et al. (2006) showed that some significant chronemic aspects of communication are shared in both CMC and face-to-face conversation. Interestingly, Kalman et al. (2006) found that the three user groups showed a similar mathematical distribution of response latencies. The average response latency in the Enron email dataset was 28.76 hours, in University Forum 23.52 hours and in Google Answers 1.58 hours. At least 70% of almost every individual's responses were sent within that user's average response latency (Kalman et al. 2006: 8-9). Moreover, all three datasets presented a power-law distribution with similar slopes (c.f. Kaman et al. 2006:8), which indicates that if a response is not created within a short period of time, "the probabilities for a response drop precipitously" (Kalman et al. 2006:10). Kalman et al. (2006) conclude by relating their findings to a similar pattern of response latencies measured in spoken conversation[7]. In addition, Kalman et al. (2006) restate 3 of Sacks et al.'s rules for turn taking to serve the in turn-allocation in asynchronous written CMC. According to the authors, these rules may serve to explain the chronemic distribution of asynchronous CMC:

1. At the moment a message is sent by one party (the sender) to one or more parties (the recipients):
    a. If the sender has selected the next speaker, the party so selected has rights, and is obliged, to send a response as soon as is practicable. Other recipients too have the right to send a response
    b. If the sender has not selected the next speaker, each recipient has the right but not the obligation to send a response
    c. The sender may continue with an additional message

2. If, after a message is sent by the sender, either 1(a) 1(b) or 1(c) has operated, each party who created a reply is assigned the role of sender and the rule-set (a)-(c) reapplies (Kalman et al. 2006:14).

[7] Kalman et al. (2006) refer to Jaffe and Feldstein's work (1970) on pauses and response latencies in face-to-face conversation. In Jaffe & Feldstein (1970), 70-80% of the pauses were shorter than the average pause length (0.97 seconds), and a pause of above 10 seconds did not occur even once in the 50-minute dialogue which was examined (Kalman et al. 2006:10).

Whereas Kalman et al. (2006) explicitly examines response norms in CMC, and claims that the addressed recipient is obliged to respond, Kankaanranta's (2005a, 2005b) genre study implicitly provides supplementing information about response norms. In her study, the different genres (Noticeboard, Postman and Dialogue) were identified on the basis of type of responses they received, i.e. if the message triggered a response or not (c.f. 2.3.2, Table 2). According to her results, the Noticeboard messages, on the one hand, did not typically trigger a verbal response. On the other hand, the Postman messages did not always request a specific response; however they sometimes invited comments, and therefore displayed an expectation of a verbal response. The Dialogue genre typically expected a verbal response (Kankaanranta 2005b:208).

Other studies of workplace emails also seem to support the view that not all email messages require a response. While Kankaanranta relates the issue of absent response to a specific email genre (The Noticeboard-genre), Condon and Cech (1996) implicitly relate the issue of missing responses to a prototypical decision-routine which provides a basic structure for the interaction in both oral and computer-mediated modalities (Condon and Cech 1996:8, 12). The general decision routine provides a structure of shared understanding and expectations which allows participants to reach consensus without providing a responding move. According to Condon and Cech (1996:19):

> (…) routines are useful because they make it possible to communicate effectively by reducing the amount of linguistic encoding necessary to express discourse functions (…) This reduction is accomplished by relying on a shared understanding such as discourse routines and, especially, the understanding that functions anticipated in routines do not need to be made explicit in the language. Since agreement is expected following a suggestion, it is often reduced to a minimal encoding, such as 'OK', 'yeah' or 'cool'. In contrast, a disagreement would require some additional linguistic form to signal the dispreferred function. Consequently, an absence of any linguistic form at all should signal agreement.

In the quote above, Condon and Cech (1996) seem to assert that an absent response might signal agreement. A similar point is made by Murray (1991), who interprets a delayed response in a decision routine as an implicit promise. A promise to comply with a request is often "unmarked" (Murray 1991:110), i.e. without linguistic signals. "Often the time delay between the original request and the response is hours or even days. The requestor does not consider this rude or unusual, but interprets the silence as a promise to try to fulfill the request" (Murray 1991:110).

In sum, previous studies on the interactional norms of CMC have been preoccupied with turn-taking systems in multiparty synchronous chat, time latencies in CMC interaction and response norms in email interaction. Clearly, users of CMC, as participants in traditional conversation, orient to adjacency as an organizing principle of interaction. However, while synchronous chat may seem to be more conversational like, email differs by having other expectancies to the norm of giving response. Previous research seems to have diverging results on this issue. While the quantitative studies seem to indicate that email requires a quick response (i. e. Kalman et al. 2006,), other studies suggest that email interactions have adapted rules from traditional decision patterns where an absent response signals an agreement or a promise to comply with a request (Murray 1991, Condon & Cech 1996). The different views on response-giving which are presented above will be compared with the findings of response norms in chapter 6.

2.2.4. Summary

Linguistic studies of email can be differentiated between two major approaches; those that compare CMC (email) with written communication and try to identify how online technologies influence how we write - and even try to find "the nature" of CMC-language, and those that compare CMC (email) with spoken interaction and draw on knowledge about face-to-face conversation in order to describe online interaction. Text linguistic approaches show that emails are written texts with internal coherence (Herring 1996). The interactional approach shows how email messages constitute contributions and turns, parallel with turns in conversations, and thus involve specific norms for turn-taking (Severinson Eklundh 1986, Kalman et al. 2006).

The previous research on the linguistic characteristics of CMC seems to agree that email messages are characterized by features which are characteristic for both written and spoken interaction, and that the styles of emails range from formal to informal. A recurring issue in many (and especially in the early) studies is to what extent one may address technology as the major factor influencing language use. Many of the different studies conclude by emphasizing that one cannot make unifying generalizations of the characteristics of the language of CMC (and email), because structure and style of the emails vary according to contextual factors (Baron 1998, Gains 1999, Hård af Segerstad 2002). Furthermore, many scholars explain the range of styles by the fact that the norms of email writing are in the process of being established (Hård af Segerstad 2002:119, Baron 1998:164, Mulholland 1999:81).

In a study of an online discussion group (r.a.t.s.), the linguist and CMC-researcher, Nancy Baym (1998), elaborates a model which intends to argue that the style of electronic text does not depend solely on the technology. In Baym's (1998) model, the structure of the messages in CMC is shaped by five interrelated factors, including the external contexts, temporal structure, system infrastructure, group purposes, and participant characteristics (Baym 1998:38). Subsequent studies seem to assume that the style and form of email messages vary according to situational factors, and emphasize that studies of email should analyze language use according to communicative goals, the type of discourse community emails are embedded in, and the genre repertoire of this community. In the next section, we will see how the approach to email switches from describing lexico-grammatical features isolated from context, to involving the context when analyzing email as social action (c.f. Kankaanranta 2005b:68).

2.3 Genre studies

Within organizational communication, spoken and written workplace communication in general, and email in particular, have been studied as a *social activity* (Bargiela-Chiappini & Nickerson 1999b). This approach is based on a social constructionist perspective, viewing the daily interaction and writing at work as an activity that creates and maintains organizational and social structures (Yates & Orlikowski 1992, Bargiela-Chiappini & Nickerson 1999a:2). Within this tradition, researchers approach email as *social action*, or *communicative practices* linked to communicative purposes and hierarchical roles within a community, e. g. the organization. Emails are examined as "typified social actions", i. e. as *genres* (Miller 1984, Bargiela-Chiappini & Nickerson 1999a:8). CMC-Researchers such as Yates & Orlikowski (1992, 2002), Orlikowski & Yates (1994), Nickerson (1999), Mulholland (1999) and Kankaanranta (2005a, 2005b) represent this tradition. Correspondingly, the current study approaches emails as social actions. However, the genre perspective is not explicitly in the foreground of the current study, or the main focus for the research, as in for instances Kankaanranta's study. Rather, it functions as an interpretative frame for the analyses. The following presentation starts by discussing the relation between email as genre and email as medium. Subsequently, the different studies on identifying email genres are reviewed.

2.3.1 Email - genre or medium?

Email researchers seem to have disagreed with regard to which extent email may be labeled as a genre or a medium. Whereas Baron (1998:146) and Mulholland (1999:81) treat email as genre, Yates & Orlikowski (1992:310) and Kankaanranta (2005b) differentiate between medium and genre. Furthermore, Yates and Orlikowski (1992:304) suggest a broad definition of genre, including sub-genres within a genre. In order to clarify the relation between email medium and genre, we now turn to the research of the pioneers in organizational genre research, Yates and Orlikowski (1992).

Yates & Orlikowski (1992) view organizational communication as occurrence of a certain number of recurrent communicative actions, or *genres*. They use the notion of genre in order to identify and recognize the different types of communicative actions that take place in organizational settings, and propose the concept: *genres of organizational communication* (Yates & Orlikowski 1992:301). Inspired by Miller's (1984) rhetorical theory, the researchers define a genre of organizational communication as "a typified communicative action invoked in response to a recurrent situation". A genre is characterized by its communicative purpose, its substance (social motives, themes, topics) and form (structural features, communication medium, and symbol system) (Yates & Orlikowski 1992:301f.). The authors further emphasizes that whereas communication is an essential element in organizations, the genres serve to organize communication into recognizable templates.

Yates & Orlikowski (1992) suggest a broad definition of genre, both in terms of normative scope (according to how shared the norms must be) and level of abstraction (identifying sub-genres within genres) (Yates & Orlikowski (1992:304). Furthermore, they take a social approach to the evolution of genres, emphasizing that genres are produced, reproduced and changed over time in their sociohistorical context. The scholars argue that previous research on communication media focuses *either* on how technical, organizational, personal, or social factors influence on media use *or* on how media affect organizational communication[8]. In order to integrate the two perspectives, Yates & Orlikowski (1992) adapt

[8] This distinction is parallel to the distinction between what have been called *social determinism* and *technologic determinism* (c.f. 1.3).

Giddens' *structuration theory* (Giddens 1984), which offers a way of examining the reciprocal and recursive relationship between media and communication in organization over time (Yates & Orlikowski 1992:310). Hence, as mentioned initially, Yates & Orlikowski's approach clearly distinguishes between "the physical means of communication (media) and the typified social actions (genre)" (Yates & Orlikowski 1992:310).

Yates & Orlikowski (1992:311) use the genre approach to examine the evolution of the traditional American *memo* genre and the elaboration of this genre in electronic mail. Traditionally, the written business letter was regarded as the genre for external communication in American business. Between 1870 and 1920 managers started to stress the importance of documenting company internal communication in order to improve efficiency and regain control of the work processes[9]. This was the start of the memo genre. Managers preferred written documents to oral exchange, because they could be stored for later purposes and as such create the organizational memory. The typewriter speeded up the production of correspondence and opened the way for the use of subheads (314 ibid.). The typists contributed to standardizing the document formats within and across firms, and it was reinforced through ongoing use and became recognizable as a new genre (the *memorandum* or *memo*) of internal organizational communication. The established memo genre has influenced the structural features of email design. By including the heading ("To", "From" and "Subject" field) the designers of email software retained elements from the existing memo genre into the new email medium (Yates & Orlikowski 1992:313-316). Even though email is perceived as an informal medium used for informal talk, the memo genre has influenced email communication in the sense that email may also be used for documenting professional interaction and work processes at the workplace. This formal aspect of email use will be thoroughly discussed in chapter 7. However, simultaneously as the email medium has contributed to developing the memo[10] genre, other email genres have emerged.

Members of a community do not depend on one single genre for their communication. Rather they use multiple, different and interacting genres over time (Orlikowski & Yates 1994:542). According to the authors, the approach to understanding a community's communicative practices is to analyze the *set* of genres, or *genre repertoire*, that are routinely enacted by members of the community (Orlikowski & Yates 1994:546). The presence of a community's genre repertoire may reveal important information regarding how the

[9] This managerial philosophy has been called *systematic management*.

[10] According to Nickerson (2000), the division between the business letter and the memo is not clear-cut in European business and the existence of the memo genre in European context can therefore be questioned (Nickerson 2000:181). However, my impression from informal conversations with business workers is that the traditional memo genre has also been used in Norway.

community communicates. Likewise, the absence of genres from a repertoire is "also particularly revealing about what forms of interacting are not valued or salient to a community" (Orlikowski & Yates 1994:561). The following section (2.3.2) presents CMC-studies which, inspired by their theory, draw on a genre approach in order to characterize different communicative practices, or genres through the use of email as communication medium.

2.3.2 Email genres in organizational communication

Orlikowski & Yates (1994) continue their work on organizational genres by identifying communicative practices of community members in a distributed work group using email as their communication medium. By analyzing 1332 messages sent by 17 participants during a 25-month period, they found that the group's practice was organized through an overall repertoire of four different genres: the memo, proposals, dialogue and the ballot genre. The *memo* genre serves the same communicative purposes as the paper-based memos and is identified by its distinct heading, rather by any specific purpose. The *dialogue*-genre is written interaction modelled on oral dialogue, whereas the *proposal* genre is distinguished by its specific communicative purpose, which is to advocate or propose "a course of action for considering by others" (Orlikowski & Yates 1994:557). The ballot genre system is a paper-based form of voting. 41% of the messages in the dataset were identified as memo, 20% were identified as dialogue, 8% as proposals and 0.5% as ballot genre system[11]. Interestingly, the use of genre repertoire shifted during the 25 months of the project. Whereas the group gradually decreased their use of the memo genre, the dialogue genre, which was a small part of the group's repertoire in the beginning, became an "increasingly accepted and used genre during the course of the project" (1994:564). Analyzing a community's genre repertoire can lead us to a better understanding of how members operate as a social group, for instance to which extent they appear democratic or autocratic. For instance, an organization that makes decisions by the members discussing and voting on issues by using the dialogue genre is different from an organization where the leader makes decisions and then informs the members about the decision by a memo (Orlikowski & Yates 1994:542).

[11] The numbers in Orlikowski & Yates's study do not add up to 100%, because some of the messages involved genre overlap. Besides, not all message could uniquely be classified as one communication genre (Orlikowski & Yates 1994:556).

The genre approach has been used by other researchers in business communication. Basically, these scholars aim at identifying different email genres in an organizational setting. Nickerson (2000) identifies four email genres in a Dutch-British company. Strikingly, none of these had received special genre names by the relevant discourse community. According to Kankaanranta (2005b:72), the time is maybe not yet ripe for naming the genres in email identified by Nickerson.

Inspired by the studies of Orlikowski & Yates (1992), Yates & Orlikowski (1994) and Nickerson (1999, 2000), Kankaanranta (2005a, 2005b) studied email genres in a multinational company. Whereas Nickerson (2000) identified the genres according to situations where the genres were invoked, the action they accomplished and the layout they used, Kankaanranta (2005) draws on the genre criterion from the ESP tradition where communicative purpose is used as the main criterion, complimented by the action accomplished by the message (cf. Kankaanranta 2005:205). Kankaanranta (2005a, b) found three overall email genres, namely the *noticeboard messages*, *postman messages* and *dialogue message*. While the dialogue genre is used to exchange information about corporate activities, the postman genre is used to deliver other documents for information and/or comment. The noticeboard genre is used to inform employees about workplace issues. The postman messages could be textless, but often referred to the attached document (Kankaanranta 2005a:45f, 2005b:207). Kankaanranta (2005b:208) found that the messages differed in respect to the number of recipients, the type of reaction expected from the recipient, and the manifestation of intertextuality with either the preceding or subsequent messages. The correspondence between the different criteria and the identified genres are shown in Table (2).

	Noticeboard	**Postman**	**Dialogue**
Number of recipients	Many	One/Many	One/Many
Reaction expected Type of reaction expected	Yes/No Typically non-verbal	Yes/No Verbal/non-verbal	Yes/No Verbal
Manifest intertextuality to preceding or subsequent message	No	Yes/No	Yes

Table 2. Criteria used to identify different communicative purposes as proposed by Kankaanranta (2005b:209)

The distribution of the three message types showed that the noticeboard messages amounted to 9%, the postman messages amounted to 36% and the dialogue messages amounted to 53%.

In chapter 6 in the current study responsiveness in email interaction is discussed with regard to Kankaanranta's three genres.

In her study of the "persons behind", Grønning (2006) implicitly examines genres in the email messages between customers and employees in a Danish insurance company. Drawing on different theories of social presence and facework[12], her main goal is to find how the person behind the email may be traced linguistically in the correspondence between customers and employees. Grønning (2006) combines qualitative interviews with the customers and employees with linguistic analyses of email interaction. Her results show that 57% of the customers perceive the email responses from the insurance company as personal. In general, the study showed that the customer showed the person behind to a greater extent than the employee. While the customer signaled a high degree of presence and closeness by using first person pronoun, discourse markers, interjections ("ÅÅÅHHHH", "ØHHH"), graphical elements, and non-normative use of punctuation marks, the employee in general ignored the customers' need of what Grønning (2006) calls "fellowship face," and signaled distance by not using these stylistic markers. The employees favor signaling high professional competence, rather than paying attention to the customer's need of fellowship (Grønning 2006:234). An interesting observation made from the interview part of this study is that the customers and the employees seem to have different expectations of the email genre. The customers seem to be in doubt of who their receivers are (executive officer or a central for mail delivery?) and if the email is side-ordered with the traditional letter. The employees, on their side, are divided in two concerning how they perceive the email. One group perceives email as similar to the traditional letter. The other group perceives email as an informal mode of communication (Grønning 2006:236). However, Grønning does not discuss these findings according to a wider perspective on genre, or with regard to Kankaanranta's three general genres (Dalogue, Noticeboard and Postman).

[12] More specifically, Grønning (2006) draws on contingence theory, media richness theory and politeness theory.

2.3.3 Summary

The studies of the linguistics of email (2.2) seem to have ignored that email style varies according to situational factors such as communicational purpose and professional roles. The genre approach suggests a solution to this dilemma. Drawing on the North American genre theory (c.f. Miller 1984), Yates & Orlikowski (1992) provide a theoretical framework, not only to identify organizational genres, but also to avoid one-sided explanations of the relationships between media and communicative practice. With their own words: "the genre approach does not attempt to understand the practice as an isolated act or outcome, but *as communicative action that is situated in a stream of social practices which shape and are shaped by it*" (Yates & Orlikowski 1992:318 [my emphasis]).

Even if the subsequent genre studies (Nickerson 2000, Kankaanranta 2005), differ with regard to how they define genre, useful knowledge about email communicative practices have been provided. The previous studies disagree about the relation between email as genre and email as medium. The current study aligns with Yates & Orlikowski's (1992) and Kankaanranta's (2005b) wide approach to genre and views email as a medium, facilitating different forms of email genres and sub-genres.

2.4 Organizational studies

In order to view emails as social practices, the current study analyzes emails with regard to their institutional context. In this procedure, the analyses have been informed by organizational studies on email. The central themes have been social impacts of email interaction, power and democracy, virtual leadership and trust. The most relevant studies are reviewed in the following section.

2.4.1 Social impacts of email communication in organizations

When computer-mediated communication entered work life, scholars predicted that it would foster a new form of organizations that were less bounded, which involved "greater autonomy of decision on the shopfloor," a "flat management hierarchy" and which appeared more egalitarian than traditional organizations (Castells 2000:169). Structures in virtual organizations were assumed to be a more “amorphous web of connections, changing constantly in response to their information processing needs” (Ahuja & Carley 1998:8). Conversely, traditional organizations are characterized as hierarchical and centralized and changes must be mandated by top management. Email was initially regarded as a democratizing medium facilitating more open and informal communication. Whereas it previously could be difficult to get access to higher level managers, email made it far easier to contact them, for instance by copying them into an email (Skovholt & Svennevig 2006). However, the use of CMC has also been predicted to increase hierarchical structures:

> Where both trust and social control in traditional workgroups and communities have been both hierarchical and collective, networked communities rely more on dyadic, interpersonal relationships and negotiations. These take time and effort to build. Moreover, organizational power structures can be robust, so that an alternative consequence may be the use of CMC to increase connectivity while maintaining hierarchical bureaucratic structures (Quan-Haase & Wellman 2006:285).

Case studies on actual email communication discuss how email in general can be used strategically, for instance to increase central power or to build coalitions at the workplace (Romm & Pliskin 1998). The discussions on the social implications of email reveal that the medium is a ‘double edged sword’ (Brigham & Corbett 1997:28-29). On the one hand it decentralizes institutional power and represents a democratizing medium:

> However, groups using email tend to produce more diverse opinions and better contributions to the decision making process. Email increases access to new people; weakens spatial, temporal, and status barriers, and provides access to information that would otherwise be unavailable (Garton & Wellman 1995:434)

The democratizing implications of email have also been an issue among linguists. Mulholland, for instance, argues that the practice of appending the responder’s messages to the original one is democratic in nature (Mulholland 1999:73):

> However, there is a democratic virtue to such unordered strings, precisely because no authoritative sender has digested and summarized the information in the string of texts for the reader; there is therefore less prior control of that information. Apart from its string ordering, it arrives as raw and unrestricted information, as it were, for individual interpretation. It is less rhetorically managed by the senders, who have simply copied it and sent it out (Mulholland 1999:73-74).

On the other hand, email also enables managers to *control* their subordinates at a distance (Brigham & Corbett 1997:29). Because managers in some organizations have access to the employees' email accounts, the email system facilitates monitoring and control of the on-going working process. According to Brigham & Corbett (1997), these technological affordances "highlight the power of email and facilitate individual acts of self-control and discipline" (Brigham & Corbett 1997:31).

The launch of email in organizational communication has led towards a shift in the use of written communication, rather than telephone calls or face-to-face, between coworkers and business partners. Email has to a great extent replaced telephone calls and face-to-face meetings. This shift into written communication has given managers the possibility of exercising more power, according to Brown, Middleton & Lightfoot (2001). Storing and ordering emails into archives has become a practical resource for managers to control their people. The archive represents the organization's collective memory, and is shared by the manager and his/her team members (Brown, Middleton & Lightfoot 2001:135). According to Brown et al. (2001:138), this practice of ordering the past is really about ordering people: "The archive then makes it possible to exercise action at distance, that is, to bind people into a social order that is represented in the archive". The design of the archive system allows managers, as well as other employees, to:

> […] view these archived messages as a series of obligations or promises that are pertinent to a particular project, and to visualize these stored obligations as a vertical stack that can be worked through by simply browsing down a column of icons on her computer screen. In terms of rhetorical work, the pivotal move this manager makes is to formulate all communications she receives as potential obligations that can be presented back to the senders. This may not be the footing that the sender had originally intended to convey (i.e. the communication may not actually have been designed to be heard as promise). But because the manager here can evidence what she takes to have been a promise, either by referring to the email or by forwarding it back to original sender, the communication is transmuted into a quasi-legal promise by the vary fact of being a written message (Brown et al. 2001:136).

Brown et al. (2001) point at what has become the most salient feature of organizational communication, facilitated by email. The shift towards a written communication has had enormous influence on the way organizations are able to "load their own past into the present". This phenomenon of gaining control over workers resembles what Yates & Orlikowski (1992:313) calls *systematic management* (c.f. 2.3.1), a managerial philosophy which appeared by the middle of the 1900s. This ideology stressed the importance of *documenting* operational processes by written communication for controlling internal communication. When emails are re-contextualized, i.e. made active in another context, it may function as documentation. This is not possible with verbal communication. The possibility of “re-use” an email requires that the users of email are well aware that their words may have a long life after the current situation (Brown at al. 2001:136).

Against the view of email as an informal and democratizing medium, Brown & Lightfoot (2002) view email as a highly formal mode of interaction where issues of personal accountability are “constant and pressing” (Brown & Lightfoot 2002:225). To utterly illustrate the formality of the medium, the authors have observed what they call the “political use of email” (Brown & Lightfoot 2002:222), the use of organizational email which includes the practice of copying others into debates as an “ass-covering” strategy. Such debates are usually focused on reconstructing what has happened in the past. According to the authors:

> This is not a matter of simply collating information. Nor is this some form of communal ritual in which the past is brought to presence through a process of collective prompting and recalling. No – here versions of the past are hotly debated. Others are copied not only because they may have some interest in the matter at hand but also as witnesses who will provide further evidence for opposing versions as they are put together by participants. The audience – those people actively contributing or monitoring a thread – may be appealed to by the principal disputants as either potential allies or else as a baying crowd before whom the dispute will be fought to the bitter end (Brown & Lightfoot 2002:222-223).

Brown & Lightfoot (2002) show how such public debates necessitate a formal style of writing and a high level of detail in order to design the messages for multiple recipients. How emails are designed to address multiple recipients is also a subject in chapter 7.

A second issue, which contributes to making email a formal mode of interaction, is its persistency. Since emails may be stored in the email system’s digital archive, it is nearly impossible for a participant to know who will be storing the messages, forwarding them and monitoring his or her messages (Brown & Lightfoot 2002:222). Hence, using email in organizational communication involves an “awareness that one is continually accountable for what goes on in electronic communication”:

> Failing to respond adequately to a request made by an email, for example, or being seen to have not fully contributed to an email discussion that touches upon one’s area of responsibility or expertise, is an accountable matter. This generates anxiety amongst users over keeping up with the volume of email they receive (Brown & Lightfoot 2002:214).

Brown & Lightfoot (2002) claim that users of email are caught up in a “collective hermeneutics of suspicion”, something which challenges each user to find methods for managing the potential pitfalls and risks connected to communication in the medium. In the current study, this phenomenon will be treated as part of email users’ email literacy (c.f. chapter 7).

2.4.2 Leading a virtual team

When email entered work life, it made it possible for people to organize their work in *virtual teams* (c.f. chapter 4 and 5). Virtual teams with employees collaborating across time zones and institutional and geographical distances have to a great extent replaced or supplemented traditional teams. Leading a virtual team involves other possibilities and challenges than leading traditional, co-located groups. On the one hand, the creation of distributed groups provides organizations the possibility to draw on professional competence that otherwise would not be available. On the other hand, when group members are geographically and institutionally dispersed and have to rely primarily on computer-mediated communication, the key challenge is to create relationships and establish a shared common ground (Duarte & Snyder 2006, Cramton 2001). How leadership is linguistically carried out, is examined in chapter 4 and 5.

There exists relatively little research on how leadership is actually carried out in computer-mediated conversation, but scholars seem to agree that building socio-emotional relations and enhancing trust among team members are crucial in virtual team work (Yoo & Alavi 2002, Yoo & Alavi 2004, Jarvenpaa & Leidner 1999, Bell & Kozlowski 2002, Iacano & Weisband 1997, Zigurs 2003, Julsrud & Bakke 2007). Among the factors that have been observed as important for creating trust are providing frequent initiatives, responding to others’ requests, explicitly verbalizing commitment and optimism, and communicating around tasks. Furthermore, social communication that complements, not substitutes, task communication may contribute to strengthening trust (Jarvenpaa & Leidner 1999, Iacano & Weisband 1997).

Some of the research on leading a virtual team has been based on hypotheses. For example Bell and Kozlowski (2002) outline four general implications virtual teams may have for their leadership. Firstly, they suggest that teams operating in real time make it easier for the leader to perform "critical performance management functions" and "development functions" (Bell & Kozlowski 2002:35-36), compared with teams operating across time. Second, when teams cross institutional and cultural boundaries, often having different values and different sets of work procedures, it is more difficult for the leader to create coherence, or link the employees together "so that they are 'insiders' in the team." This can be accomplished by building a unique "third" culture (Bell & Kozlowski 2002:37). Third, it is more difficult for leaders to establish norms in virtual teams with a more discrete lifecycle, than in teams they have been together with longer. Finally, a leader's management becomes difficult when team members hold multiple roles within and across different virtual teams. To counteract role conflicts, leaders need to clearly specify each member's role in the team (Bell & Kozlowski 2002:38-40).

2.4.3 Summary

In sum, early studies on email communication in organizations viewed email as a democratizing medium. However, more recent studies emphasize the complexity of CMC and suggest that email also may be used strategically to enhance power in the organization. At the current stage, CMC is viewed as a medium which is not intrinsically apt to bring about workplace democratization. It all depends on the local context in question (Woolgar 2002, Brown & Lightfoot 2002:215). Instead of assuming that the use of communication technologies has a general impact, for example on social relations, recent views stress the importance of examining the actual usage and experience of new technologies in complex social situations (Woolgar 2002:16). The current study aligns with this view.

In conclusion, the review has showed that there has been a shift in focus during the past 20-30 years of CMC research. As we have seen, early linguistic- and organizational approaches to email and CMC seem to search for universals about the *impacts* and the *consequences* of technology. While the linguists searched to find generalized characteristics of language use, focusing on how technology changed language use, organizational and sociological studies searched to find the impact of the use of technology on communication, organizational processes, culture and society (Sproull & Kiesler 1986). The early studies searched for generalizing truth, viewing CMC as an informal mode of communication which served to democratize communication and organizations. The subsequent studies emphasize that CMC-research should study variation, rather than impacts. One way of doing this was to study email as recurrent typified social action manifested in genres (Gains 1999, Kankaanranta 2005, Nickerson 2000, Woolgar 2002).

This shift in focus from impacts to variation may be explained by "our cumulative experience with communication technologies" (Baron 2008:4). The different studies are influenced by the evolutionary stage of the technology. When technology is new, "bewilderment – even fear – is a natural response" (Baron 2008:3). Scholars try to characterize its general characteristics and impact in society. When technology has become embedded in our daily practices, or *domesticated*, scholars search to study its use in different settings. Another way of explaining the widespread tradition of generalizing research is by addressing the theoretical assumptions about the relation between technology and communication which underlie the previous studies. As Yates & Orlikowski (1992:310) claim, existing studies on CMC seem to assume a causal relationship between media and organizational communication: "most existing research focuses *either* on how technical, organizational, personal, or social factors influence media choice and use *or* on how media affect organizational communication, but not on both". The first view, we have already labeled *social determinism*. The second view is called *technological determinism* (c.f. 1.3). The previous research in these traditions has received much critique for its work. As proposed by Yates & Orlikowski (1992), the genre perspective offers an approach to the relation between technology/medium and the evolution of communication norms/genres, which resolves the dualism between technological determinism and social determinism.

2.5 Positioning the thesis in the field of CMC

As we have seen in the review of email literature, linguistic approaches to CMC have to a great extent focused on the impact of the technology on language, and furthermore, how language is manifested in electronic discourse rather than on social interaction in electronic media. The current study has an overall *linguistic approach* to email, positioned within the genre-tradition in CMC-research, such as Yates & Orlikowski's (1992), Bargiela-Chiappini & Nickerson (1999) Kankaanranta's (2005a, 2005b), who all are inspired by Miller's (1984) notion of genres as "typified social actions". Indeed, the current study views email as *social action*, or *communicative practices* linked to communicative purposes and hierarchical roles within the organization. In line with Yates & Orlikowski (1992) and Kankaanranta (2005a, 2005b), this study views email as a *communication medium* used for many different purposes and accordingly facilitating the creation of many different *genres* and sub-genres. However, while the focus in the Yates & Orlikowski-tradition is to identify email *genres*, the current study aims at examining email *interaction*, i.e. threads of email discourse and their underlying interactional norms.

The interactional studies on email that do exist seem to have diverging results on the issue of giving response in email interaction. While the quantitative studies seem to indicate that email require a quick response (i. e. Kalman et al. 2006), qualitative studies suggest that email interaction have adapted rules from traditional decision making pattern where an absent response, for instances to a request, signals an agreement or a promise to comply with a request (Murray 1991, Condon & Cech 1996). The current study intends to clarify the question of response-giving in CMC by studying it empirically in the current study's email data. In addition to contributing with new findings on response-giving, this study also elaborates the notion of norm by drawing on the CA-approach to conversational/interactional norms, combined with the genre theorist's emphasis on the context of social action.

Furthermore, the organizational studies of email seem to have been preoccupied with the use of email and its impact on communication and organizational structure. While some researchers emphasize the democratizing impact of email, other organizational researchers claim that email may reflect, and even increase, the traditional power structures within an organization. The current study contributes to illuminate the question about power and democracy. By analysis of actual instances of email, the analysis practically shows how email messages may contribute in both democratizing processes and power enactment. The study contributes to the discussion of power and democracy by addressing issues as email copies, written medium's ability of storing messages in the archive, leadership communication and network structure in a virtual team.

Organizational studies seem to a great extent to focus on the social implications of email, but do not base their discussion on actual instances of email interaction. A great part of the studies are quantitative, and based on laboratory experiments (c.f. Condon & Cech 1996). Despite the relative vast literature on email, there exist only a very few empirical studies with "tangible data behind the anecdotes" (Baron 2008:16). Hence, there seems to be a lack of qualitative studies using authentically email data (c.f. Ahuja & Carley 1998). In order to provide more empirical data to the study of email, the current study bases its analyses on naturally occurring emails from an authentically workplace setting.

In sum, there seems to be a need for discourse analytic work on email interaction which integrates and develops the basic theoretical assumptions from the structuration of norms and genres (Yates & Orlikowski 1992), combined with an explicit focus on the interactional processes and procedures involved. The current study aims at remedy this situation by analyzing naturally occurring email messages in their social and interactional context, emphasizing the dialogic and social character of language use.

CHAPTER 3

Methodology and Data

The choice of methodology in this study is framed within the epistemology of dialogism. This involves analyzing written texts and conversational utterances as interactional accomplishments. Practically, in this study this includes orienting to the principles of the next-turn proof procedure and the principle of addressivity (c.f.1.4). The study is conducted within the frame of discourse analysis and based on the assumption that users of email, as is the case with conversation, orient to some basic interaction norms. These may be adopted from both conversations as well as from traditional written correspondence. Since the email medium makes possible hybrid communication forms which may be associated with both conversational turns as well as written texts, email interaction should be analyzed within a methodological framework which involves both aspects. Thus, in the current study, norms of email interaction on the one hand are compared with conversational norms, and the methodology of CA and the principle of next-turn proof procedure are sought to be followed. On the other hand, since an email also may be realized as a written text receiving no response, it is not obvious that the methodology of CA and the next-turn proof procedure always fit. Therefore, the study also draws on dialogical theories of language use which is aimed at analyzing single utterances and texts. These include theories of addressivity and elaborated versions of speech act theory and politeness theory.

In the first part of this chapter I present my research design and analytical procedures in the four studies (chapter 4-7). Then I present the three different approaches within the field of discourse analysis and discuss them with respect to their methodological stances. Finally, I present the data and the informants.

3.1 Research design and analytical procedures

This study consists of four individual studies which are based on both descriptive and explanatory procedures. On the one hand, the *descriptive domain* of the study involves primarily qualitative methods. However, in the initial study (chapter 4), the descriptive step is quantitative. The qualitative procedure involves text analyses of actual instances of email in order to find typical, recurrent textual and interactional patterns. This procedure is guided by principles from CA, such as identifying typical features in the data, finding recurrent patterns and identifying deviant cases. Moreover, it uses the next-turn proof procedure for interpreting speech acts. The quantitative procedure involves identifying distributions of different quantitative phenomena in the data, such as distribution of sent and received messages for each participant, network structures, speech act distribution, and average response latency. This procedure is supported by UCINET, a software tools for doing social network analysis.

The *explanatory domain*, on the other hand, involves interpreting the identified patterns with reference to theories of institutional interaction and interpersonal relationships, and to theories of virtual leadership and media usage. Instead of conducting a study based on one unifying methodology, this study aims at viewing the phenomenon of email communication from different angles. The different methods serve to create a more complex picture of the object of study, which provides different complementary results. Rather than one single method, email group interaction is the unifying thread of the study. The research design is illustrated in Table (3) below.

Study	Methodology	Theory	Step 1. Descriptive	Step 2. Explanatory
Chapter 4 "What does a Virtual Leader do?"	Quantitative/ Qualitative	Speech act theory	Identify message distribution. Conduct network analysis. Identify speech acts and their frequency.	Account for the results by reference to leadership theories and theories about the email medium.
Chapter 5 "Leadership Communication in a Virtual Team"	Qualitative	Politeness theory	Describe patterns of the leader's addressing and requesting devices.	Account for the results by reference to leadership theories, politeness theory, and to theories about the email medium
Chapter 6 "Responses and Non-Responses in Workplace Emails"	Quantitative/ Qualitative	Theory on the email medium, Conversation Analysis	Identify norms of response by reference to recurrent patterns and deviant cases.	Relate norms to theories on institutional interaction, to theory of conversation norms, and to theories about the email medium.
Chapter 7 "Email Copies in Workplace Interaction"	Qualitative	Conversation Analysis, participant framework	Identify recurrent patterns of addressing devices and functions of copies. Identify deviant cases.	Relate identified patterns to theories of institutional interaction and interpersonal relationships.

Table 3. Study design. Analytical procedures in the four individual studies

As Table (3) illustrates, chapter 4 uses a combination of quantitative and qualitative methodology. Here, speech act theory is used in order to identify leadership actions. The descriptive step involves identifying message distribution, conducting a network analysis/sociometric analysis in order to identify patterns of network exchanges, and finally categorizing and identifying speech act frequency in the leader's and the emergent leader's messages. The explanatory step involves accounting for the results by reference to leadership theories and theories about the email medium.

Chapter 5 uses a qualitative approach. Politeness theory is used in order to identify how the leader positions herself in the virtual team. The descriptive step involves describing patterns of how the leader addresses the group and how her requests are formulated to group members and external co-workers. The explanatory step involves accounting for the results by reference to leadership theories, politeness theory, and to theories about the email medium.

Chapter 6 combines quantitative and qualitative methodology. The methodology of Conversation Analysis is used to identify implicit response norms in email interaction. The descriptive step involves identifying norms of response by reference to recurrent patterns and deviant cases. In addition, the average response latency is calculated. The explanatory step involves relating the identified norms to theories of institutional interaction, to the theory of conversational norms and to theories about the email medium.

Finally, chapter 7 uses a qualitative approach. Pragmatic theories of audience design are used in order to analyze how email users design their messages to multiple recipients. The descriptive step involves identifying recurrent patterns of copying in recipients and identifying deviant cases. The explanatory step involves relating the identified patterns to theories of institutional interaction and interpersonal relationships.

The descriptive and explanatory steps in the four studies may be associated with two different domains of scientific knowledge. Two types of scientific knowledge exist in philosophy of science, so called 'that'- knowledge and 'why'- knowledge. According to Salmon (1989), it is one thing to know "that each planet periodically reverses the direction of its motion with respect to the background of fixed stars; it is quite a different matter to know why" (Salmon 1989:3). Knowledge of the first kind is descriptive, while knowledge of the latter is explanatory. According to Salmon (1989), we need explanative knowledge in order to provide scientific accounts of reality. In scientific accounts, the explanative knowledge, i.e. explanans, must be located in another domain than the descriptive knowledge, i.e. explanandum (Jf Faarlund 1987, Gívon 1989, Svennevig 2001). According to Hempel & Oppenheim's (1989[1948]) classical deductive-nomological model, a scientific explanation of regularity needs to be subsumed under at least one general law:

> Thus, the explanation of a general regularity consists in subsuming it under another, more comprehensive regularity, under a more general law (Hempel & Oppenheim 1989 [1948]: 152).

Hempel & Oppenheim's model is created within a positivist paradigm and can not be directly transferred to human science. As has been discussed by Gívon (1989) and Svennevig (2001), explanations in human science are not causal, but functional and based on theories of human behavior, rather than on universal nature laws:

> Causal connections are just one species of connection obtaining between phenomena and their wider context;

> Functional explanations are different from causal ones merely in that the context to which a phenomenon is linked via such explanations is some biological or behavioural function (Gívon 1989:308).

In conclusion, the present study provides functional, not causal, explanations for the identified patterns of email interaction.

The presents study makes use of both qualitative and quantitative methods. However, the qualitative studies are in the foreground in the study, whereas the quantitative part is merely supposed to function as supplying a background. The quantitative part is primarily conducted for the purpose of showing some distributions of analyzed phenomena in the data and thus aims at contributing to a richer description. Both the analysis of response latency, the network analysis, and the analysis of speech act distribution are carried out both in order to support the qualitative analyses (as in chapter 4), and to provide a richer empiric ground for making qualitative generalizations (as in chapter 5). Chapter 4 should be read in connection with chapter 5, and vice versa. The main goal of this thesis is neither to demonstrate that the quantitative results are applicable to other studies, nor to provide any claim of statistical significance. Rather, the thesis aims at gathering an in-depth understanding of human behaviors mediated by email, and identifying possible functional accounts of that behavior.

3.2 Discourse analytical approaches

Discourse Analysis (DA) is a theoretical framework for analyzing text and talk. 'Discourse' is a complex concept which may used in a particular way (as a text), as well as in a general, abstract way (as abstract value systems beyond the text) (Fairclough 2003:4). The field has developed through two different trends: (1) as a broadening of perspective in linguistics and (2) through a shift in the general theorizing of knowledge (Jaworski & Coupland 1999:4-5). The first tradition involves an approach to language as text and communicative practice, opposed to the traditional approache to language as an abstract system. The second tradition has been influenced by the work of Foucault who linked discourse to ideology. In the current study, discourse analysis is used in the first, particular sense, as the analysis of language in use. 'Discourse' is viewed as the product of written and oral language use, and may include for instance conversations, interviews, speeches, letters, emails etc[13]. The field of Discourse Analysis is interdisciplinary. Many researchers combine different methods and their work span

[13] I need to emphasize that the concept of 'discourse' has been widely discussed. However, it is beyond the scope of this thesis to present it any further. For a more thorough discussion of the complexity of the discourse concept, see for instance Gee (1999) and Wodak (2006).

different disciplines. A recent contribution to DA is the study of computer-mediated discourse. An increased interest in computer-mediated communication has contributed to establishing Computer-mediated Discourse Analysis (CMDA) as a specialized field within the broad interdisciplinary study of CMC. CMDA is distinguished “by the focus on language and language use and by the use of methods of discourse analysis to address that focus” (Herring 2001:612). The discourse analytical methods that are used in the current study are Conversation Analysis, speech act theory, and politeness theory.

3.2.1 Conversation Analysis

Conversation Analysis is the systematic study of talk-in-interaction which emerged from the sociologist Harvey Sacks’ studies of everyday language use, from 1964-1975. Its main objective is to study the interactional organization of social activities (Hutchby & Wooffit 1998:13-14).

“Actors somehow know what they are doing and know it in common with one another” (Heritage 1987:232). This quote illustrates the main concern in Conversation Analysis, namely searching for the knowledgeable ways in which social actors “recognize, produce and reproduce social actions and structures” (Heritage 1987:225f). In order to communicate, the actors must take for granted that they produce and display recognizable and accountable actions and actions which are meant to communicate. People’s knowledge of these actions is referred to as common sense knowledge. Sacks interest in people’s common sense knowledge was inherited from the sociologist Garfinkel, who developed a new form of sociology which has been known as *ethnomethodology*. Ethnomethodology is the study of the procedures members of a society use in creating a social order:

> The term ‘ethnomethodology’ thus refers to the study of a particular subject matter: the body of common-sense knowledge and the range of procedures and considerations by means of which the ordinary members of society make sense of, find their way about in, and act on the circumstances in which they find themselves (Heritage 1984:4).

According to CA, the analyst’s task is to identify and describe this order as it emerges in social practices. The ethnomethodological way of doing this is by identifying and describing the actors’ own definition of the situation, rather than applying rules from outside the actual setting in order to explain social practices. Garfinkel's ideas stood in clear opposition to the traditional sociology (associated with Talcott Parson), which explained social actions and social order as motivated by internalized norms and values (Garfinkel 1967, Heritage 1984, 1987). The ethnomethodology also describes human interaction as a mutual orientation towards norms. However, the norms are viewed as constitutive of action, rather than regulative (c.f. 1.3). Against Parson's view, Garfinkel argued that members of a society are not 'judgmental dopes'[14], i.e. "the-man-in-the-sociologist's society who produces the stable features of the society by acting in compliance with pre-established and legitimate alternatives of action that the common culture provides" (Garfinkel 1984:68). On the contrary, social order is developed by the actors in the situation and the norms are reflexively constitutive in the sense that they are developed and maintained through interaction rather than given:

> Within his [Garfinkels] viewpoint, the common norms rather than regulating conduct in pre-defined scenes of action, are instead reflexively constitutive of the activities and unfolding circumstances to which they are applied (Heritage 1984:109).

On the one hand, interlocutors may maintain and develop the perceived normal course of the scene by acting in accordance with the norm. On the other hand, "they also use this same norm to notice, interpret and sanction departures from its dictates. The norm is thus doubly constitutive of the circumstances it organizes" (Heritage 1984:107). A methodological principle for analyzing norms is by identifying so called deviant cases, or situations where actors orient to, or are held accountable for the breach of a norm. According to Garfinkel, the constitutive character of norms becomes salient in situations where they are breached. For example, if a person returns a greeting, he or she reciprocates the greeting and ratifies it. If, on the contrary, this person fails to return a greeting, this will be treated as observable-reportable breach of the norm 'return a greeting'. In chapter 6 we will see the "deviant case-principle" in use as analytical tool.

Inspired by Garfinkel's ethnmethodology, Sacks developed a systematic methodology for analyzing conversations as an orderly accomplishment. Their methodology was based on an expectation of order at all points, which means that wherever the analysts direct their gaze at verbal interaction, they will find order:

[14] See Heritage (1984:110f) and Heritage (1987:241) for a more thorough discussion on (Parson's) normative determination versus (Garfinkel's) moral accountability.

> Whatever humans do can be examined to discover some way they do it. … That is, we may alternatively take it that there is order at all points (Sacks 1984:22).

The analyst's task, then, was to describe this order as a formal system, as a "grammar" of social activities:

> What we would be doing, then, is developing another grammar. And grammar, of course, is the model of routinely observable, closely ordered social activities (Sacks 1984:25).

and as a "machinery" of interaction:

> (…) to transform, in an almost literal, physical sense, our view of 'what happened', from a matter of a particular interaction done by particular people, to a matter of interactions as products of a machinery. We are trying to find the machinery (Sacks 1984:26, 27).

The methodology of conversation analysis is based on strict empiricism and inductivism. First, the analysis of talk-in-interaction should be based on naturally occurring data. Sacks avoided such research methodologies as interviewing techniques, observation methods, field notes and manipulated data, because each of them involves that the specific details of data get lost and are replaced by the idealizations of how interaction works (Heritage 1984:236). Second, the researcher is not supposed to analyze conversations with any a priori theories of communication, power, gender, social class etc. Rather, the analyst should practice 'unmotivated examination of some pieces of data' (Sacks 1984:27), rather than imposing her own categories:

> When we start out with a piece of data, the question of what we are going to end up with, what kind of findings it will give, should not be a consideration. We sit down with a piece of data, make a bunch of observations and see where they will go (Sacks 1984:27).

Sacks proposed that generalization should be based on properties which are self evident and demonstratively present in the discourse. According to CA, we have to identify contextual factors as they are made relevant by the actors themselves. In Schegloff's words:

> Once we recognize that whoever can be characterized as ”male” or as ”protestant”, or as ”president” or whatever, can be characterized or categorized in other ways as well, our scholarly/proffessional/scientific account cannot ”naively” rely on such characterizations, that is, cannot rely on them with no justifications or warrant of their relevance (Schegloff 1991:50).

Ethnomethodology involves showing: “from the details of the talk [...] that we are analyzing that those aspects of the scene are what the parties are oriented to [...] to show how the parties are embodying for one another the relevancies of the interaction and are thereby producing social structure” (Schegloff 1991:51).

Another basic principle in the CA-methodology has already been referred to as “the next-turn proof procedure” (Hutchby & Woffitt 1998:33). It is assumed that any speaker’s action is doubly contextual, that is, it is both context shaped and context renewing. A speaker’s utterance must, on the one hand, be understood by reference to the previous utterance. On the other hand, a speaker’s utterance is context renewing in the sense that it forms the immediate context for some next action in a sequence (Heritage 1984:242). Hence, the analyst is supposed to interpret a conversational turn by reference to the next.

In conversation, certain types of utterances create an expectation of a specific type of response. Schegloff and Sacks (1973) identify a principle in conversation which describes the relation between specific types of conversational turns. This principle is called conditional relevance:

> When one utterance (A) is conditionally relevant on another (S), then the occurrence of S provides for the relevance of the occurrence of A. If A occurs, it occurs (i. e. is produced and heard) as a “responsive to” S, i.e. in a serial or sequenced relation to it; and if it does not occur, its occurrence is an event, i.e. it is not only non-occurring (…) it is absent, or “officially” or “notably” absent. That it is an event can be seen not only from its “noticeability”, but from its use as legitimate and recognizable grounds for a set of inferences (e. g. about the participant who failed to produce it) (Schegloff 1972:76).

An utterance which provides for the relevance of a next turn is called the first part of an adjacency pair. An adjacency pair is:

> (1) A sequence of two utterances, which are
> (2) Adjacent,
> (3) Produced by different speakers,
> (4) Ordered as a first part and second part, and
> (5) Typed, so that a first part requires a particular second part (or range of second parts).
> (Heritage 1984:246, Schegloff & Sacks 1973:295-296)

An adjacency pair occurs when an utterance projects expectation of a relevant next turn to be accomplished by another speaker. For example, when a communicative activity, such as a greeting, is introduced, a subsequent action (a greeting) is normatively expected and relevant.

Other utterance pairs are, for instance, summons-answer, question-answer and invitation-acceptance/rejection. In chapter 4 and 6, I discuss to what extent adjacency pairs may be used to cover sequences of email.

Schegloff and Sacks' (1973) description of the adjacency pair organization doesn't imply that a greeting is always responded to by a greeting. They simply propose that the adjacency-pair structure is a 'normative framework for actions which is accountably implemented' (Heritage 1984:247), which means that if a second speaker omits producing a second part, he or she will be held normatively 'accountable' for not responding[15]. The concept of accountability is used in CA as a principle for identifying norms. A conversational norm may become visible in two ways; first, when a conversational feature appears as a structural regularity. Second, when it is breached and the actors are in some way held accountable. This is what has already been referred to as "deviant cases" (c.f. Heritage 1984:118). Chapter 6 in the present study demonstrates how these methodological principles are applied in practical analysis.

CA's inductive and empirical program, which includes a value free axiology, has attracted much debate in recent years. On the one hand, some scholars have criticized CA of purporting a form of naïve realism often associated with a positivistic stance, characterizing conversational organization as "machinery" and "grammar" (Billig 1999, Sägerdahl 2003). On the other hand, as by emphasizing the local and contingent character of social reality, CA has also been treated as a radically social constructivistic enterprise (Fairclough 2005). This ambiguity may be explained by a different approach to norms within CA and ethnomethodology. While CA (expressed by Sacks 1984) indirectly describes norms as regulative, i. e. pre-existing and determining for human behaviour ("grammar, machinery"), Ethnomethodology rather emphasizes that norms are "reflexively constitutive" (Heritage 1984:109). With regard to this ambiguous view on norms it has been claimed that CA and Ethnomethodology are two different enterprises. Another view is that one should not take Sacks' metaphors too literally, but treat them as 'loose metaphors', rather than theoretical concepts (ten Have 2004:27).

In my point of view, the debate above seems to be a result of widespread confusion about the actual methodological stance of CA. This may be due to a lack of explicit methodological discussion within CA itself, combined with a somewhat ambiguous combination of a positivistic rhetoric of scientific procedures with socio-constructivistic methodology (c.f. Skovholt & Svennevig 2005). Despite this ambiguity, I consider CA to be

[15] 'Account-able' as synonym for "observable-reportable" (Heritage 1987)

well suited for the descriptive phase in analyzing verbal interaction. However, in order to bring the scientific process towards an explanatory level, CA should be combined with theories which may account for the identified structures. Subsequent research on institutional interaction assumes that different types of activities and settings make relevant different norms and speech exchange systems, and suggest relating descriptions of verbal interaction to a wider range of contexts, i.e. types of activities, relationships, back ground knowledge and cultures (Arminen 2005:57, Skovholt & Svennevig 2005). In my opinion, this will contribute to bringing CA closer towards the dialogical epistemology, considering the "double dialogicality" of the dialogue (Linell 1998:54), i.e. by emphasizing the impact of both the social and cultural context on ongoing and new interactions, as well as the impact of local interactions at the more aggregate level (c.f. 1.4).

3.2.2 Speech act theory

Speech act theory (SAT) springs from the basic idea that in saying something a speaker is performing a social action, a speech act. SAT has its philosophical origin in Austin (1962) who examined the difference between constatives and performatives. In his view, by saying something we not only communicate a propositional content, we also perform an action. Austin (1962) elaborated this distinction by differentiating between an utterance's locutionary act (the utterance of a sentence with determinate sense and reference), the illocutionary act (the making of a statement, offer, promise etc. in uttering a sentence, what is directly achieved by the conventional force associated with it), and the perlocutionary act (bringing about effects on the audience). In Austin's view, a speech act had to fulfill certain felicity conditions in order to realize an illocutionary force. For instance, the act of uniting two people in marriage needs to fulfill some socially and culturally conventionalized criteria, such as involving an authorized person who performs the words: "I now/hereby pronounce you husband and wife". Following Austin (1962), several taxonomies have been proposed, firstly by Searle (1969) who distinguish between five main categories of illocutionary acts: representatives (e.g. asserting) directives (e.g. requesting), expressives (e.g. thanking), commissives (e.g. promising) and declarations (e.g. appointing). Subsequent researchers have elaborated Searle's categories and proposed their own taxonomy of speech acts. However, it has become clear that it is impossible to stipulate an exhaustive taxonomy of speech acts including their felicity conditions (Jaworski & Coupland 1999:16).

In this study of emails, the notion of speech act has been used for the purpose of identifying speech acts performed by the leader and the members of a distributed group. In my analysis I frequently use the term request. In this study, a request is a speech act expecting a response in the form of a verbal or a physical act (Searle 1969). It is an expression of the speaker's need to get the hearer/reader to act. As mentioned above, the terminology in speech act theory has generally varied a great deal and researchers seem in particular to disagree on the classification of directives and requests (e.g. Vine 2004). According to Vine (2004), researchers who are investigating phenomena such as directives and requests, seems to have used different labels for the same phenomena, or used the same labels for different phenomena (Vine 2004:26). The present study distinguishes between questions and requests as subtypes of directives. A request is a speech act expecting a response in the form of a verbal or a physical act. Hence, a request may involve both request for information (questions) and request for action. Requests for information explicitly ask for a verbal response. Requests for action (such as task assignments) primarily elicit a non-verbal response, but they also create the expectation of a verbal display of acceptance or rejection (Lindström 1999).

There are many problems with Searle's SAT. For instance, the model does not generate all potential illocutionary acts. In English alone there are over 150 illocutionary verbs, such as ordering, telling, asking, apologizing, thanking, baptizing, etc (Verschueren 1980, in Clark 1996:136). Moreover, every illocutionary act is assumed to belong to only one category. However, the classification may be useful as "gross classification" (Clark 1996:136). More important, speech act theory has been criticized for being monological (Linell 1998, Schegloff 1984), and subsequent scholars in discourse analysis rather emphasized the multi-functionality of utterances, suggesting that there is no one-to-one relation between an utterance's grammatical form and its pragmatic function (or illucotionary force). An utterance may serve multiple functions (and carry out a range of different illocutionary acts) depending on how it is responded to by the addressee. For instances my mother's utterance "his fingers are cold" pointing to my son, may be a constative (informing me literally that my son's fingers are cold), a directive (requesting me to put his mittens on) and even an accusation ("You are an incompetent mother who doesn't dress her son properly"). How I respond to the utterance will show my interpretation of her utterance and hence contribute to define its meaning. In 3.1.1 we could see that meaning making within CA is considered as an interactional achievement rather than an addressee's decoding of the speaker's intentions behind the utterance.

This view is taken up and elaborated in Clark's theory on joint actions (Clark 1996). Clark (1996) proposed an interactional approach to speech acts that conceptualized communicative acts as inherently joint actions. According to Clark (1996), a joint action consists of coordination and cooperation between both speaker and addressee. For instance, a promise requires recognition and an uptake of the addressee to count as a promise. The addressee's interpretation of the speaker's illocutionary act will be evidenced in the addressee's public display and in the speaker's evaluation of that display. This interactional procedure is what Clark (1996) calls *joint construal*. The procedure of coordinating (joint) actions may, according to Clark (1992, 1996), be conceptually divided into two faces, the presentation phase and the acceptance phase:

> Presentation Phase: A presents utterance u for B to consider. He does so on the assumption that, if B gives evidence e or stronger, he can believe that B understands what A means by u.
>
> Acceptance Phase: B accepts utterance u by giving evidence e' that he believes he understands what A means by u. He does so on the assumption that, once A registers evidence e', he will also believe that B understands (Clark 1992:151).

According to Clark (1992:153), the acceptance phase is usually initiated by B (the addressee) giving A (the speaker) evidence that he understands what A meant by u. Evidence of understanding may be of different types, such as, for instance, assertions of understanding, or acknowledgement (B nods and say uh huh, yeah, or the like), presuppositions of understanding (B starts in on the next contribution and presupposes that she has understood him well enough to go on), displays of understanding (B displays by an answer, for instance, all or part of A's presentation), and exemplifications of understanding (B exemplifies what she has construed A to have meant, for instance by offering a paraphrase, a verbatim repetition or a gesture). In each of these signals, A is able to check the evidence as an acceptable construal (Clark 1992:153, Clark 1996:228-229). The conceptualization of speech acts as joint construals seems to correspond with the dialogical principle of next-turn proof procedure.

3.2.3 Politeness theory

Politeness theory (PT) (Brown & Levinson 1987) has its roots in linguistic pragmatics, more specifically in Grice's principles of conversational cooperation, and is a universal theory on how social relations are established linguistically by people's orientation to each other's public face (Goffman 1967). The basic assumption for this theory is that language usage is a basic component of what social relations are made of (1987:55). Hence, within the frame of politeness theory, analyzing language usage coincides with discovering how social relations are constructed.

Brown & Levinson (1987) build their theory on Goffman's (1967) notion of face, our public self image when participating in interaction. The theory posits a model person, a rational being (MP). According to Brown & Levinson (1987), all rational agents have two particular wants: the want to be unimpeded, a negative face, and the want to be approved of, a positive face (Goffman 1967). In social interaction, the participants share a mutual interest in maintaining each other's face. However, acts which threaten face, as for instance performing a request, are called 'face-threatening-acts' (FTA). When a speaker needs to perform an FTA, she may use one of five different super-strategies. She may perform the FTA directly, without redressive action (Strategy 1 - going baldly on record. Ex.: "Reformulate the letter"); she may perform the FTA with compensation by using either positive politeness strategies (Strategy 2. Ex.: "You are doing excellent work, but would you please reformulate the letter") or negative politeness strategies (Strategy 3. Ex.: ”I know you are busy, but could you pls reformulate the letter"). The speaker may choose to perform the FTA indirectly (Strategy 4 - off record. Ex.: "The letter needs some improvement"), or simply avoid doing the FTA (Strategy 5).

By ”redressive action” Brown & Levinson (1987) mean "action that ”gives face” to the addressee. This is action that attempts to counteract the potential face damage of the FTA by doing it in a way (…) "that indicates clearly that no such face threat is intended or desired, and that S [speaker] in general recognizes H's [hearer] face wants and himself wants them to be achieved" (Brown & Levinson 1987:69-70).

According to Brown & Levinson (1987) speakers assess the seriousness ("weightiness") of an FTA. This involves assessing the social distance between the participants, their relative power and the ranking of the imposition in the particular culture

(Brown & Levinson 1987:74)[16]. The greater the imposition of, for instance, a request is, the more the individual needs to compensate for the FTA, using politeness strategies to minimize the threat.

Any individual (or model person, as the authors refer to) uses practical reasoning in order to evaluate the social distance, the relative power and the ranking of the imposition. In Brown & Levinson's model, any MP would employ the politeness strategies that gave the most appropriate payoff. This includes identifying the linguistic means which will satisfy the MP's strategic end (1987: 91). "Each strategy provides internally a range of degrees of politeness (or face-risk minimization), so S [speaker] will bear in mind the degree of face threat in choosing appropriate linguistic realizations and in constructing and compounding verbal minimizing expressions" (1987:91).

Brown & Levinson have developed two detailed overviews of the possible linguistic realizations of positive and negative politeness. It is beyond the limits of this presentation to review all the strategies here, but see Brown & Levinson (1987:102, 131). In what follows, I will only give a brief overview of the strategies which are most important for the present study.

Positive politeness is used to show that one's own wants are in some respect similar to the addressee's wants. There are different ways of conveying this, for instance by indicating that speaker and addressee are somehow similar. This can be perceived by claiming common ground:

Claim common ground:

Convey "X is admirable, interesting"

1. Notice, attend to H (his interests, wants, needs, goods)
2. Exaggerate (interest, approval, sympathy with H)
3. Intensify interest to H

Claim in-group membership with H

4. Use in-group identity markers

Claim common points of view, opinions, attitudes, knowledge, empathy

5. Seek agreement
6. Avoid disagreement
7. Presuppose/raise/assert common ground
8. Joke

(Brown & Levinson 1987:102)

[16] It has also been argued that the social distance parameter is not a reliable way of characterizing the relationship between S and H; rather, the affective relationship is a more useful measure (Watts 2003:96-97).

Another strategy is to convey that S and H are cooperators:

Convey that S and H are cooperators:
Indicate that S knows H's wants and is taking them into account
9. Assert or presuppose S's knowledge of and concern for H's wants
Claim reflexivity (if H wants <H has X> then S wants <H has X>, and: If S wants <S has X> then H wants <S has X>)
10. Offer, promise
11. Be optimistic
12. Include both S and H in the activity
13. Give (or ask) for reasons
Claim reciprocity
14. Assume or assert reciprocity
Fulfill H's wants (for some X)
15. Give gifts to H (goods, sympathy, understanding, cooperation)
(Brown & Levinson 1987:102)

Conversely, whereas positive politeness is oriented towards S and H's similarity, *negative politeness* is oriented towards the addressee's need of having freedom of action unhindered. The speaker can perceive this by the following strategies:

Redress that H wants to be unimpinged upon:
Be direct
1. Be conventionally indirect
Don't presume/assume (Make minimal assumptions about H's wants, what is relevant to H)
2. Question, hedge
Don't coerce H (Give H option not to act)
3. Be pessimistic
4. Minimize the imposition
5. Give deference
Communicate S's want to not impinge on H
6. Apologize
7. Impersonalize S and H: Avoid the pronouns "I" and "You"
8. State the FTA as a general rule
9. Nominalize
(Brown & Levinson 1987:131)

Some of these strategies will be exemplified by and through the analysis in chapter 5.

According to the subsequent theorists on linguistic politeness, Brown & Levinson's politeness theory represents a milestone. It has provided an insight into human behavior which no other theory has yet offered, according to Locher & Watts (2005:9). However, few other theories have attracted so much challenge. Brown & Levinson's politeness theory has been criticized in numerous articles, for instance for being unable to account for the multifunctionality of linguistic strategies, and for ignoring inter-cultural differences with regard to politeness. It is beyond my scope to review the whole range of the criticism here;

rather I will concentrate on some major challenges and clarify the approach to politeness taken in this study.

One of the main problems with Brown & Levinson's model is that it seems to represent a monologist approach (Linell 1998) to communication. First, the list of strategies in their model is presented as if speakers are expected to exercise a rational choice in choosing an appropriate strategy. According to Watts (2003), the system sets the choices open to speakers in the form of a binary system which "conveys the impression that they have to work their way through the whole system before they can arrive at the appropriate utterances in which to frame the FTA" (Watts 2003:88). Second, the model seems to ignore the contextual contingency of an utterance's meaning. Whether an utterance is polite or impolite is dependent on the ongoing discourse activity, and also on the interlocutor's knowledge of the social situation (Watts 2003:95). Many types of utterances (as for instances claiming disagreement) are not in themselves polite, but they may be interpreted as polite, or appropriate, within the context of the discourse activity (as for instance a debate). Furthermore, according to the model, some behavior would require mitigation of speech acts. However, Locher & Watts (2005:21) show examples of family quarrels and "conflictual" interaction which allow for non-mitigating, challenging behavior, without being evaluated as impolite or inappropriate.

Arundale (1999) suggests that the limitations of the traditional face and politeness theories are closely connected to the account of communication provided by the Gricean tradition, which provided an "information transmission" account and an "encoding/decoding" account of communication. However, Brown & Levinson (1987) did make evident that it is the "encoding/decoding model's linear, isolated-act-by-isolated-act treatment of language use, together with its dependence upon and privileging of cognitive explanations, that make it incapable of explaining the emergent properties evidenced in ordinary interaction" (Arundale 1999:124):

> Social interaction is remarkable for its emergent properties which transcend the characteristics of the individuals that jointly produce it; this emergent character is not something for which current theoretical models are well equipped. Workers in artificial intelligence have already detected a paradigm clash between 'cognitivism' and 'interactionism', and noted the failure of the former paradigm to account for interactional organization […]; our own account suffers from the same overdose of cognitivism (Brown & Levinson 1987:48).

In other words, Brown & Levinson (1987) admit the limitations of their theory, and simultaneously present the need of a more interactionally based approach to politeness. One attempt to outline an interactional approach to politeness has been made by Arundale (1999, 2006).

In the same manner as Clark has proposed a re-conceptualization of speech acts as ‘joint construals’ (c.f. 3.2.2) Arundale’s (1999, 2006) *face constituting theory* has provided an alternative approach to face and politeness based on a co-constituting model of communication (1999:127f.). In his alternative model, facework is viewed as an interactional achievement, involving both speaker and addressee in an emerging process of co-constituting face, rather than as a single act achievement. In other words, the notion of “face” is viewed as a relational, interactional and dialogical, rather than as an individual phenomenon. By specifying the link between speaker’s and addressee’s actions, Clark’s and Arundale’s models bring us from the traditional *monologist* conceptualization of speech acts and politeness towards an interactional and *dialogical* one. This makes it possible to bridge SAT/PT with CA. The practical and methodological consequence of this re-conceptualization of SAT and PT is that the analyst, in order to identify speech acts and politeness strategies, must actively attend to the next-turn proof procedure, i.e. analyze and identify speech acts with regard to their sequential position.

One challenge in email interaction, however, is that participants lack non-verbal resources to make joint construals. Furthermore, email is primarily a written medium and the addressees’ possibilities of contributing to a joint construal are sometimes restricted by time and space, dependent on the availability to the computer, genre, etc. Furthermore, the institutional context, as will be discussed, allows absent or delayed responses, for instance in cases of request for action. In sum, the conceptualization of speech act and politeness in this thesis is in principle aligned with Clark’s and Arundale’s model. However to what extent the interpretation and identification of speech acts can rely on the addressee’s uptake and public displays is dependent on whether an email receives a response or not.

In cases where messages do not receive a response, the analysis may still adhere to the dialogical principles. The analyst may rely on Bakhtin’s principle of addressivity as it is displayed through Goffman’s theory of “hearer roles” (i.e., his “participation framework”) (Goffman, 1981:154), Sacks’ notion of “recipient design” (Sacks, Schegloff, & Jefferson, 1974) and Clark’s theory of “audience design” (Clark 1992, 1996). According to Sacks, et al. (1974:727), recipient design “refers to a multitude of respects in which the talk by a party in a conversation is constructed or designed in ways which display an orientation and sensitivity to the particular other(s) who are the co-participants.” Clark (1992) has developed the ideas of Goffman and Sacks into an analytic framework (that will explicitly be used in chapter 7). In this framework, Clark (1992:218) distinguishes four basic participation roles:

1. *Speaker* (the person who performs the illocutionary act)
2. *Addressees* (the participants who are, or could be, designated vocatively in the utterance)
3. *Participants* (the hearers the speaker intends to "take part in" the illocutionary act that is directed at the addressee)
4. *Overhearers* (the hearers who are not intended by the speaker to "take part in" the illocutionary act)

These basic roles can be further subdivided into roles, such as *side participants*, *bystanders*, and *eavesdroppers*:

5. *Side participants* (the participants who are not addressees)
6. *Bystanders* (those overhearers who have access to what the speakers are saying and whose presence is fully recognized)
7. *Eavesdroppers* (those overhearers who have access to what the speakers are saying, but whose presence is not fully recognized) (Clark 1992:202,250)

Chapter 7 shows more thoroughly how this participant framework may be used on email interaction.

The field of discourse analysis has developed since Levinson & Brown published their theory in 1987 and since Sacks CA-methodology was published in 1984. Recent studies on conversations have provided accounts for combining the different approaches in practical analyses (c.f. Clark 1996, Arundale 1999, Arundale 2006, Svennevig 1999). These accounts are based on a re-conceptualization of the terms speech act and politeness, and a re-framing of the theories so that they fit with CA's interactional approach and within a dialogical epistemology.

3.3 Quantitative approaches – social network analysis

Social network analysis (SNA) does not belong to the discourse analytical field. It is a method which originally was developed within social psychology and sociology. It aims to describe social relationships of people within groups or social networks, of people. In SNA, a social network is a visual representation of social structure made of nodes, representing the individual actors within the networks, and ties, representing the relationships between the actors. The nodes may be individuals or organizations that are tied by one or more instance of social relation, such as friendship, kinship, dislike, conflict or trade (Borgatti 2002)[17]. In the present paper, the term social network represents the relations between individuals in the virtual team Agenda (nodes) as it is expressed by the number of emails sent to one another (ties).

[17] For an introduction to studying on-line social networks, see also Garton, Haythornthwaite & Wellman (1999).

The first step in a social network analysis is to create a data matrix of the kinds of social relations one wishes to investigate and transport the matrix into software for social network analysis, for instance the UCINET-program (Borgatti, Everett & Freeman 1999). The software program generates a graph, representing a map of the social relation structure in the network. The second step consists of interpreting the network structures which occur in the graph. According to Hanneman & Riddle (2005), representing social network data in a mathematical graph may "suggest things that we might look for in our data which might not have occurred to us if we presented our data using descriptions in words" (Hanneman & Riddle 2005). For instance, a social network analysis may identify the degree to which actors are connected directly to each other by cohesive bonds, i.e. the *cohesion* of the group. A group's cohesion may be expressed by the term *density*, which connotes "the general level of linkage among the points [nodes] in a graph" (Scott 2000:69f. [brackets added]). The density in a social network is mathematically defined as "the number of lines in a graph, expressed as a proportion of the maximum possible number of lines." The more points that are connected to one another in a social network, the denserl the network will be (Scott 2000:70).

A third concept which will be used in chapter 4 is that of *centrality*. An individual's centrality in a network is the count of the ties (connections) to other nodes (persons) in the network (Scott 2000:82). A central node in a network is often called a *star*, i.e. "the person who is the most popular in his or her group or who stands at the centre of attention" (Scott 2000:83)[18]. Actors who have more ties have greater opportunities because they have more choices. In other words, the more ties actors have, the more power they (may) have:

> Actors who have more ties to other actors may be advantaged positions. Because they have many ties, they may have alternative ways to satisfy needs, and hence are less dependent on other individuals. Because they have many ties, they may have access to, and be able to call on more of the resources of the network as a whole. […] a very simple, but often very effective measure of an actor's centrality and power potential is their degree (Hanneman & Riddle 2005).

Individuals' centrality and power in a network may be measured by their degree, i.e. the total number of other nodes in an individual's network. In the present study, the aim is to identify leadership actions as expressed through a social network pattern. The analysis is thus focused on identifying central and leading actors in the network and their roles within the group.

[18] Scott (2000) differentiates between 'local' and 'global' centrality. A point is locally central if it has a large number of connections with other points in its immediate environment. A point is globally central when it has a position of a strategic significance in the overall structure of the network (Scott 2000:82). However, since the present study analyzes a relatively small network, it does not make use of this differentiation.

Social network analysis provides a set of concepts, methods and software tools for measuring and interpreting social structures. It is in use in many scientific disciplines, including linguistics. In sociolinguistics, a network analysis can help the researcher to explain variation in language use by relating it to strong and week ties. It may help to explain why: “a particular community successfully supports a linguistic system that stands in opposition to a legitimized, mainstream set of norms, and why other systems might be less focused or more sensitive to external influences (Milroy 2003:118). According to Milroy (2003), network analysis may be attractive for sociolinguists, because it offers the possibility of studying small groups where speakers are not predefined in terms of social class-categories. Second, since social networks are related to local practices they have the potential to elucidate the social dynamics driving language variation and change. Third, social network analysis offers an analytical procedure that does not construct groups with reference to predetermined social categories, but rather analyzes variation between individual speakers (Milroy 2003:119). These advantages of using social network analysis may be regarded as relevant to the present study as well.

3.4 Data and informants

The data for this study are emails collected from a distributed project group called “Agenda” in a Norwegian telecompany, “Telecom” (TCM). TCM is a large, multinational corporation with approximately 1100 employees in Norway. The email exchanges were gathered from August 2004 to December 2004 and contain 491 emails, of which 166 contain in-copied recipients[19]. The email messages were collected with assistance from the Agenda members, who during the period continuously forwarded their exchanges to the researcher. The collection of data was assisted by the Information Director, Arvid Lervik, who provided the permission to collect email and record meetings for research purposes. The formal leader of Agenda, Line Myhre, assisted in informing the researcher of Agenda’s activities, inviting to meetings, providing newsletters etc. The members of Agenda were all informed about the research project and agreed to serve as informants. In addition, background data was collected from the Agenda group’s regular meetings and from informal interviews with the group members. The background data (interviews and meetings) were not systematically used in the analyses, but served to provide the researcher with contextual information.

[19] Initially, the data-set comprised of approximately 700 emails, of which 300 contained in-copied recipients. However, approximately 200 emails had to be left out of the final collection, due to some errors in the file-format which led to difficulties in tracing the threads.

The emails were transferred into a Word document and given a unique number. When one email message appeared in different threads, it was only counted once. However, the thread was kept in order to track the individual email's different paths. Moreover, different kinds of information about each email were transferred to an Excel document. In the excel spread sheet, each message was tagged with regard to the identification of the sender and receiver, whether it contained in copied recipients or not, the date and time the messages was sent, to whether the message received a following response or not, and finally the response latency. The spread sheet contributed to systematizing the information I was interested in and provided a simplified overview of a rather complex set of data. The emails were originally written in Norwegian, but are translated into English here. The translations are idiomatic, rather than word-by-word, in order to keep the style as authentic as possible.

Agenda's main task is to edit letters that are distributed to customers in the private market. The group has existed since 2001, but in 2004 Agenda increased its domain of responsibility from editing letters to take control of all letters, texts and commersials that are sent to telephone-, Internet-, and ADSL-customers in the private market. The members formulate, revise, and standardize letters and templates, with the purpose of giving all letters a uniform style that communicates in a clear and polite way to the customers. They are frequently contacted by various divisions in the company with requests to reformulate their letters. In order to give the letters a unified tone, they follow a set of guidelines concerning orthography, sentence structure, and style.

The project group consists of 11 members, each representing a team from the different divisions of the company: Telephony, BH/BM; ADSL, SV; Dial-up, LØB/EE; Mobile, JOB; Customer Service, GO; Credit, LL; and Invoice, JE. In addition, Agenda includes text designer MM, system operator GJ, and an observer and system operator from another division, AS. The manager of the project group is LM, and she in turn reports to AL, the Information Director of TCM Private. The members' initials and affiliation to the group are presented in the overview in Table (4) below.

AL = Information director	SV = Dial-up-letters
LM = Assigned leader of AG	BH = AG's mailbox, Telephone-letters
MM = Text designer	JO = Mobile-letters
GJ = System responsible (implementing letters)	BM = Telephone-letters
AS = System responsible (AG's homepage, Internet)	EE = ADSL-letters
	GO = CS (Custumer Service)

Table 4. Overview of the members in Agenda (AG)

The Agenda group reorganized twice during the period data was collected. LØB was replaced by EE in the first week and BH was replaced by BM by the end of the data-collection period. Except from these changes, the rest of the members were (more or less) active in the group for the whole period.

The senders and recipients of the messages are primarily Agenda members. Some messages also include group externals who collaborate closely with Agenda. Most of the members in Agenda are physically located in different departments and even in different parts of Norway. They have occasional meetings at the main office, but most of their communication is carried out by email and telephone. The members usually interact in dyads, sometimes with selected co-members copied in, and seldom address the group as a whole. Some members are more active than others, for instance text designer MM, manager LM, and the system operators GJ and AS. Yet all of the members are represented in the data. The members also interact with external collaborators within and outside of TCM, such as employees at the printing center "Strålfors" and members of Agenda Business.

CHAPTER 4

What Does a Leader of a Virtual Team Do? Network Structures and Speech act Distribution in Workplace Emails

4.1 Introduction

Email has contributed to fundamentally changing the way people organize their work, primarily by facilitating the development of distributed work groups, or *virtual teams*. A virtual team is a group of people where members collaborate towards a common goal across space, time, institutional and geographical borders using digital media as their primary communication tool.

Virtual teams play a key role in the design of contemporary organizations. Previous studies have predominantly focused on the main challenges for virtual teams to succeed. However, relatively little is known about how virtual teams actually coordinate their work and how leadership in particular is carried out. The current study examines naturally occurring email messages to find out how a virtual team (Agenda) actually works, and more specifically what kind of *leadership actions* the leader of a virtual team in a Norwegian telecommunication company (TCM) performs. The study has a descriptive approach, combining quantitative and qualitative methods. The quantitative part of the study is inspired by social network analysis. The qualitative part uses speech act theory as its theoretical point of departure.

The sum of a virtual team's online collaborative work is archived in the employees' individual email inboxes and is not necessarily visible to others in the organization. In order to better understand how virtual teams work, the current study first identifies the total number of sent and received messages for each member internally in the group during the three month period of data collection. Second, the study provides a social network representation of the internal connectedness in the group, i.e. who is sending messages to whom and how often. However, the social network representation only describes the surface of group participation. Hence, in order to understand the social network representation, the study finally identifies what kind of speech acts the two most active members in the group (assigned leader and emergent leader) perform in their messages.

4.2 Previous research on virtual teams

Virtual teams have been studied within different disciplines. Organizational studies seem to have in common an attempt to identify factors that influence the success and efficiency of virtual teams. These factors include: identifying type of team and tailoring leadership style to the particular team type (Bell & Kozlowski 2002), establishing a common ground (Cramton 2001), following pre-formulated rules (Walther & Bunz 2005), developing and maintaining trust (Jarvenpaa & Leidner 1999, Julsrud & Bakke 2007), the significance of liking (Weisband & Atwater 1999), initiating tasks and providing responses (Jarvenpaa & Leidner 1999, Cramton 2001, Walther & Bunz 2005). Some studies seek to identify emergent leadership in virtual teams (Yoo & Alavi 2004) and others identify hierarchical structures in organizational networks (Ahuja & Carley 1998). Only a handful of studies focus on virtual leadership explicitly (e.g. Bell & Kozlowski 2002, Yoo & Alavi 2004).

Within linguistic studies on business emails, some researchers have focused on how leaders perform requests and directives in written communication (Kankaanranta 2005, Alatalo 2006). Requests and directives have also been a research focus within leadership conversations. For instance, Vine (2004) examines how power is enacted through the linguistic form of the requests. Even though the linguistic studies do not focus explicitly on virtual teams, their results are highly relevant for the classification of speech acts in the current study and will be reviewed in section (4.2.5).

4.2.1 Definition of virtual team

Virtual teams are distributed work groups where members are "geographically dispersed and coordinate their work predominantly with electronic information and communication technologies," such as email, video-conferencing, etc (Hertel, Geister & Konradt 2005). Virtual Teams are often composed of domain experts from multiple organizations or departments within an organization (Bell & Kozlowski 2002:13, Yoo & Alavi 2004). Virtual teams may include members that frequently meet face-to-face. They may be permanent or fluid (Saunders 2000:18). Moreover, virtual teams may be coordinated by a formally appointed leader, or they may be self-directed, i.e. "groups of interdependent individuals that can self-regulate their behaviours on relatively whole tasks" (Cohen & Ledford 1994).

Leading a virtual team involves other possibilities and challenges than leading traditional, co-located groups. On the one hand, the creation of distributed groups provides organizations the possibility of drawing on professional competence that otherwise would not be available. On the other hand, when group members are geographically and institutionally dispersed and have to rely primarily on computer-mediated communication, the key challenge is to create relationships and establish a shared common ground (Duarte & Snyder 2006, Cramton 2001). Therefore, building socio-emotional relations and enhancing trust among team members are crucial in virtual team work (Yoo & Alavi 2004, Jarvenpaa & Leidner 1999, Bell & Kozlowski 2002, Julsrud 2007).

4.2.2 Trust in virtual teams

Many scholars have paid attention to the role that trust plays for the success of virtual teams. Previous research has found that there are notable differences between high- and low-performing teams (Jarvenpaa & Leidner 1999, Iacano & Weisband 1997). The studies seem to agree that the outcome of self regulated virtual teams, to a great extent, is dependent on the emergence of one or two leaders (emergent leaders) who manage to unify the team. This accomplishment is, to a great extent, based on the ability to develop socio-emotional relations in order to promote trust within the team (Jarvenpaa & Leidner 1999, Iacano & Weisband 1997, Zigurs 2003, Julsrud & Bakke 2007).

Jarvenpaa & Leidner (1999) & Iacano & Weisband (1997) seem to agree that trust does exist in global, virtual teams. Their results indicate that messages initiating work processes and focusing on work content develop a high level of trust. Frequent task related initiatives and responses strengthen and unify the virtual team. Furthermore, social communication that complements, not substitutes, task communication may strengthen trust. In both studies, groups with a high level of trust typically exchanges social messages (Jarvenpaa & Leidner 1999:811, Iacano & Weisband 1997:8). For example, in groups with a high level of trust, there were explicit statements of commitment, support and excitement. Expressions of enthusiasm increased the attraction to the group and augmented atendency of agreement and cooperation (Jarvenpaa & Leidner 1999:811).

In a Norwegian study on trust in an interculturally distributed team, Julsrud & Bakke (2007) identified certain members, so called “trust brokers,” who contributed to bridging the different national groups in the team. Julsrud & Bakke (2007) found that trust and trust brokers play a significant role in increasing a group’s motivation and production and in helping a virtual team to operate in more robust and sustainable ways.

Walther & Bunz (2005) examine the role that pre-formulated rules play for trust and performance quality in virtual teams. Some distributed groups in a cross-university course were assigned to adhere to pre formulated rules when using computer-mediated communication. The study found relatively strong and consistent correlations between the degree to which participants reported, following each and every rule with the level of trust that they experienced. The more the behavioral “routines were adopted, the better the affective and material results of the virtual team’s efforts” (Walther & Bunz 2005:843).

The previous research views the ability to create trust as an important attribute of emergent leaders to make teams succeed. Furthermore, the studies identified empirical manifestations of trust by creating emails. In the current study, the main goal is to identify leadership actions in virtual teams. Based on the previous studies, the study will discuss if some of the leader’s actions correspondingly may be associated to trust.

4.2.3 Power structures in virtual teams

When computer-mediated communication entered work life, scholars predicted that it would foster new form of organizations that were less bounded, which involved "greater autonomy of decision on the shopfloor," a "flat management hierarchy" and which appeared more egalitarian than traditional organizations (Castells 2000:169). Structures in virtual organizations were assumed to be a more "amorphous web of connections, changing constantly in response to their information processing needs" (Ahuja & Carley 1998:8). Conversely, traditional organizations are characterized as hierarchical and centralized and changes must be mandated by top management. However, the use of CMC was also predicted to increase hierarchical structures:

> Where both trust and social control in traditional workgroups and communities have been both hierarchical and collective, networked communities rely more on dyadic, interpersonal relationships and negotiations. These take time and effort to build. Moreover, organizational power structures can be robust, so that an alternative consequence may be the use of CMC to increase connectivity while maintaining hierarchical bureaucratic structures (Quan-Haase & Wellman 2006:285).

According to Ahuja & Carley (1998), the terms "hierarchy" and "centralized" are used loosely and sometimes interchangeably in the literature on structure in organizations (8). In order to examine to what extent virtual organizations are decentralized and non-hierarchical, as researchers have argued, Ahuja & Carley (1998) analyzed structure in a virtual organization. In order to narrow down the terms "hierarchy" and "centralized" they used a social network approach and measured the structure of a virtual organization along three dimensions; the *degree of hierarchy* (the degree to which relationships in a network are indirectly or directly reciprocal), *centralization* (the extent to which a network is organized around its focal point) and *hierarchical levels* (the number of levels one must go through in order to obtain information) (Ahuja & Carley 1998:9). Using the Social Network Analysis software UCINET (Borgatti et al. 1992) they analyzed the degree values of centralization and of hierarchy. Ahuja & Carley (1998) found evidence of both hierarchy and centralization in their virtual group: "virtual organizations can exhibit considerable hierarchical tendencies" (Ahuja & Carley 1998:23). Interestingly, these finding seems to contradict the predictions of typical non-hierarchical and decentralized structure in virtual organizations.

While Ahuja & Carley's (1998) examined hierarchy and centralization in a virtual organization regardless of individual roles, the current study concentrates its analysis on role, i.e. the leader's position in the network. The analysis will show if the email exchange structures may be related to a team member's role. For example, it examines how central (and influential) the leader is in the network and whether her relations to the Agenda-members are reciprocal or not. Based on Ahuja & Carley's (1998) findings, the current study seeks to elaborate the knowledge of network structures in virtual teams. Is the structure traced from Agenda's email exchange hierarchical (by means of reciprocal, or not) and/or centralized (by means of organized round the leader, or not), and thus corresponds with Ahuja & Carley's (1998) results, or does this group show other patterns?

4.2.4 Leadership in virtual teams

Only a few studies have explicitly examined leadership in virtual teams. While some studies focus on the factors which lead to team success (Walther & Bunz 2005, Bell & Kozlowski 2002), others identify the content of leadership actions (Yoo & Alavi 2004). Leadership in virtual teams can be manifested in many forms. There may, or may not, be an assigned leader and the leadership role may be distributed, i.e. shift among members:

> There may be a team leader, or a facilitator, or a coach. The titles will vary, the formality will vary, and the team context and culture will vary. But given the dispersion of virtual teams, we are more likely to find leadership roles shifting among members at different points in time over the life of shared work. A virtual team that is working on developing a highly innovative product, for example, will need leadership on processes, on subject matter, on team development, and on technology choices at various times during its life as a team. That represents a broad set of roles that one individual is unlikely to be able to fill (Zigurs 2003: 342).

There exist many different types of virtual teams. Bell & Kozlowski (2002) have developed a typology of virtual teams in order to draw implications for virtual leadership. Their typology is based on traditional models of leadership functions, i.e. normative models that identify general leadership functions which need to be accomplished in all teams. According to Bell & Kozlowski (2002) the two major functions of leadership are *team development* (the development and shaping of team-processes) and *performance management* (the monitoring and management of ongoing team performance and progress toward task accomplishment). With respect to team development, the team leader's role is to create team orientation, which includes promoting shared goal commitment, creating positive affect and shaping climate perceptions. A team leader's role is, in addition, to establish *team coherence*. This includes developing linked individual goals, a repertoire of team task strategies and a compatible network of role expectations. Team-coherence represents the team member's collective bond to task interdependencies and dynamics and provides the capability for teams to self-manage. According to Bell & Kozlowski, the challenge for virtual leaders is to duplicate these functional roles into the virtual/distributed environment (Bell & Kozlowski 2002:5- 8).

Bell & Kozlowski (2002) identify four characteristics that distinguish different types of virtual teams: 1) temporal distribution (whether the team operates in real time or not), 2) boundary spanning (whether the team spans institutional and cultural boundaries or not), 3) lifecycle (whether the team members have known each other for a long period or not) and 4) member roles (whether the team members hold multiple roles or not). A virtual team is defined by a combination of these characteristics, but there are many virtual team alternatives. According to Bell & Kozlowski (2002), we need to understand the dimensions rather than focus on rigid typological classifications (Bell & Kozlowski 2002:23).

The leader of a virtual team may have various challenges, dependent on the characteristics of the team. Bell & Kozlowski outline four general implications virtual teams may have for their leadership. Firstly, they suggest that teams operating in real time make it easier for the leader to perform "critical performance management functions" and "development functions" (Bell & Kozlowski 2002:35-36), compared with teams operating across time. Second, when teams cross institutional and cultural boundaries, often having different values and different set of work procedures, it is more difficult for the leader to create coherence, or link the employees together "so that they are 'insiders' in the team." This can be accomplished by building a unique "third" culture (Bell & Kozlowski 2002:37). Third, it is more difficult for a leader to establish norms in virtual teams with a more discrete lifecycle than in teams with whom they have been together longer. Finally, a leader's management becomes difficult when team members hold multiple roles within and across different virtual teams. To counteract role conflicts, leaders need to clearly specify each member's role in the team (Bell & Kozlowski 2002:38-40).

While Bell & Kozlowski (2002) predict implications for formal leadership, Yoo & Alavi (2004) examined emails sent by participants in seven different Listserv-groups in order to identify what *emergent* leaders do, i.e. "leadership as spontaneously accorded by fellow team members and as an emergent phenomenon that develops over time through group processes" (Yoo & Alavi 2004:29). The emergent leaders were identified by a voting procedure among the list-members. Subsequently a content analysis of all the group members' email messages was conducted. The results showed that emergent leaders sent the most messages, the messages were significantly longer, they were more task related, they contained logistics related information and they influenced the temporal rhythm more than those of the other members (Yoo & Alavi 2004:38-39). In the qualitative analysis, Yoo & Alavi (2004) identified the emergent leaders' behavior and identified the following three leader roles: the initiator, the scheduler and the integrator.

While Yoo & Alavi (2004) examine the role of emergent leadership, the main goal in the current study is to identify the assigned leader's actions. In order to identify a potential emergent leader in Agenda, the present article compares the speech acts in the assigned leader's email messages with the speech acts in the messages to the member who sends most messages in the group. According to Yoo & Alavi's (2004) results, emergent leaders send the most messages. The current study aims at identifying the assigned leader's speech acts, and compares those with the speech acts of an eventually emergent leader.

4.2.5 Linguistic studies on business requests

Some of the organizational studies on virtual teams look at the content of email messages, but without explicitly applying linguistic methods. In order to gain a deeper understanding of leadership actions in virtual teams, there seems to be a need for more elaborate coding strategies (Yoo & Alavi 2004:50). The current study thus incorporates knowledge from linguistics in order to identify categories of speech acts in leaders' messages.

In linguistic studies of business email interaction, business requests have been an object of study within email interaction (Kankaanranta 2005b, Alatalo 2006) as well as within studies on workplace face-to-face communication (Vine 2004). Kankaanranta (2005b) investigated variation in English email requests by Finnish and Swedish writers. In order to identify the textual representation of requests, she coded requests into three different request "moves," request for a verbal response, request for action and request for response depending on "the met conditions in the case" (2005b:370). She found that 60% of the requests called for communication-related activities textualized by verbs like "comment," "confirm," "reply," "check," "see," "discuss." Furthermore, Kankaanranta (2005b) suggests that this type of interaction did not follow any corporate hierarchical structures in the sense that it was the superiors who asked their subordinates to do something; "Rather, interaction among staff members took place between the different organizational levels in both directions, from top down and vica versa" (Kankaanranta 2005b:377). Kankaanranta (2005b) furthermore found that imperative and interrogative realizations clearly dominated in the requests in both Finns' and Swedes' messages.

Inspired by Kankaanranta (2005b), and drawing on Halliday's functional grammar, Alatalo (2006) examines how directives are realized lexico-grammatically with regard to their sequential position. Her aim is to describe the many forms and discuss their situational and contextual functions. Alatalo (2006) found that requests may take many different lexico-grammatical forms. A requests may, for instance, be realized by different lexical verbs, such as "need, ask, to/ask if, hope, propose, advice, require, recommend, assume" etc, conveying different contextual functions, such as for instance, conveying necessity and obligation, cancelling etc. Alatalo discusses the different functions and concludes that there is no one-to-one match between the form and the function in real-life language use, i.e. contextual functions do not derive from lexico-grammatical forms (Alatalo 2006:382).

While Kankaanranta (2005b) and Alatalo (2006) are preoccupied by the lexico-grammatical realizations of requests, Vine (2004) focuses on the overt expression of power in management style, and the use of directive speech acts as one linguistical method to enact power. By combining a quantitative and qualitative method, Vine shows how leaders "do power" in the workplace. Drawing on speech act theory, Vine (2004) identifies and counts what she calls "control acts" in the data (directives, requests and advice). The results showed that only 7% of the control acts were directed at the two leaders, while 93% of the control acts were identified in the managers' speech. In other words, Vine's results indicate that managers perform requests to a larger extent than subordinates do. Is this the case also for leaders of virtual teams? Or is leadership, and thus the performance of requests, rather a phenomenon which is distributed between all members in the group, as Zigurs (2003) proposes?

In sum, the previous research seems to agree that virtual teams do need a leader, assigned or emergent, who may fill a complexity of roles, such as initiating tasks, creating mutual knowledge, increasing the temporal rhythm of interaction, giving socio-emotional support in addition to task-related support and finally providing reliability of communication tools. According to previous research, these are crucial factors which seem to increase a group's level of trust. However, since the previous studies are predominantly based on interviews (Julsrud & Bakke 2007), interventions (Walther & Bunz 2005) statistical methods (Ahuja & Carley 1998) or relative broad classifications of leadership behavior (Yoo & Alavi 2004), there seems to be a need for more descriptive and qualitative work on virtual teams with an explicit focus on discursive processes involved and more elaborate coding strategies (Bell & Kozlowski 2002: 47, Ahuja & Carley 1998:17, Yoo & Alavi 2004:50).

In order to understand how a virtual team actually works, the current study addresses the following research questions:

1. How is virtual leadership expressed through a virtual team's frequency of contact and email exchange pattern?
2. How is virtual leadership accomplished by means of leaders' speech act pattern?
3. What is the role relationship between the assigned and eventually an emergent leader in a virtual team?

4.3 Data and Methodology

4.3.1 Data

The data for this study are emails from a distributed project group called "Agenda" in a Norwegian telecompany, "Telecom" (TCM). The email exchanges were gathered from August 2004 to December 2004 and amount to approximately 700 emails, of which 300 contain in-copied recipients. The messages were collected with assistance from the Agenda members who, during the period, continuously forwarded their exchanges to the researchers.

Agenda's main task is to edit all confirmation letters that are distributed to customers in the private market. The members formulate, revise, and standardize letters and templates, with the purpose of giving all letters a uniform style that communicates in a clear and polite way to the customers. They are frequently contacted by various divisions in the company with requests to reformulate their letters. In order to give the letters a unified tone, they follow a set of guidelines concerning orthography, sentence structure, and style.

The project group consists of 11 members, each representing a team from the different divisions of the company: *Telephony*, BH/BM; *ADSL*, SV; *Dial-up*, LØB/EE; *Mobile,* JO; *Customer Service*, GO; *Credit,* LL; and *Invoice*, JE. In addition, Agenda includes *text designer* MM, *system operator* GJ, and an observer and *system operator* from another division, AS. The manager of the project group is LM, and she in turn reports to AL, the Information Director of TCM Private. The members' initials and affiliation to the group are presented in the overview in Table (5) below.

AL = Information director	SV = Dial-up-letters
LM = Assigned leader of AG	BH = AG's mailbox, Telephone-letters
MM = Text designer	JO = Mobile-letters
GJ = System responsible (implementing letters)	BM = Telephone-letters
AS = System responsible (AG's homepage, Internet)	EE = ADSL-letters
	GO = CS (Custumer Service)

Table 5. Overview of the members in Agenda (AG)

The Agenda group reorganized twice during the period data was collected. LØB was replaced by EE in the first week and BH was replaced by BM by the end of the data-collection period. Except for these changes, the rest of the members were (more or less) active in the group for the whole period.

The senders and recipients of the messages are primarily Agenda members. Most of them are physically located in different departments and even in different parts of Norway. They have occasional meetings at the main office, but most of their communication is carried out by email and telephone. The members usually interact in dyads, sometimes with selected co-members copied in, and seldom address the group as a whole. Some members are more active than others, for instance text designer MM, manager LM, and the system operators GJ and AS. Yet all of the members are represented in the data. The members also interact with external collaborators within and outside of TCM, such as employees at the printing center 'Strålfors,' and members of Agenda Business. In addition to the email collection, extensive ethnographic and interview data were collected in order to contextualize the communicative practices. The emails were originally written in Norwegian, but are translated into English here. The translations are idiomatic, rather than word-by-word, in order to keep the style as authentic as possible.

In Bell & Kozlowski's (2002) terms, Agenda operate in real time (temporal distribution). The group spans institutional boundaries, but not geographical or cultural boundaries (boundary spanning). Some of the team members had known each other for a long period at the time the data was collected. Others had recently been introduced and two new members were added to the group during the actual period (lifecycle). All of the members hold multiple roles, in the sense that Agenda was only one of other networks they were engaged in. However, the members hold single roles within the group. Some members seemed to be dedicated for one specific role (LM, MM, GJ, AS), while others were not.

4.3.2 Methodology

The current study uses a combination of quantitative and qualitative methods. In order to seek answer to the first research question, the number of sent and received messages for each Agenda-member is identified. Moreover, a sociometric analysis (Scott 2000:8f.) inspired by Social network analysis (SNA) is conducted in order to show the frequency of the messages sent between each person in the group, i.e. who sends email to whom and how often. First, the number of sent and received messages for each group member is coded into a data matrix (Scott 2000:38). The matrix shows affiliations and number of messages sent between each member. Subsequently, the data matrix is transported into a social network analysis program, UCINET (Borgatti et al. 1999), to create a visual representation (a diagram) of the data matrix.

Social network analysis (SNA) is a method that originally was developed within social psychology and sociology. It aims to describe social relationships within groups, or *social networks*, of people. In SNA, a social network is a visual representation of social structure made of *nodes*, connoting the individual actors within the networks, and *ties*, connoting the relationships between the actors. The nodes may be individuals or organizations that are tied by one or more instance of social relations, such as friendship, kinship, dislike, conflict or trade (Borgatti 2002). In the present paper, the term social network represents the relations between individuals in the virtual team Agenda (nodes) as it is expressed by the number of emails sent to one another (ties).

Social network analysis provides a set of concepts, methods and software tools for measuring and interpreting social structures. It is in use in many scientific disciplines, including linguistics. In sociolinguistics, a network analysis can help the researcher to explain variation in language use by relating it to strong and weak ties. It may help to explain why: "a particular community successfully supports a linguistic system that stands in opposition to a legitimized, mainstream set of norms, and why other systems might be less focused or more sensitive to external influences" (Milroy & Gordon 2003:118). According to Milroy &

Gordon (2003), network analysis may be attractive for sociolinguists because it offers the possibility of studying small groups where speakers are not predefined in terms of social class-categories. Second, since social networks are related to local practices it has the potential to elucidate the social dynamics driving language variation and change. Third, social network analysis offers an analytical procedure that does not construct groups with reference to predetermined social categories, but rather analyzes variation between individual speakers (Milroy & Gordon 2003:119). These advantages of using social network analysis may be regarded as actual for the current study as well.

The first step in a social network analysis is to create a data matrix of the kinds of social relations one wishes to investigate and transport the matrix into software for social network analysis, for instance the UCINET-program. The software program generates a graph, representing a map of the social relation structure in the network. The second step consists of interpreting the network structures that occur from the graph. According to Hanneman & Riddle (2005), representing social network data in a mathematical graph may "suggest things that we might look for in our data which might not have occurred to us if we presented our data using descriptions in words" (Hanneman & Riddle 2005). For instance, a social network analysis may identify the degree to which actors are connected directly to each other by cohesive bonds, i.e. the *cohesion* of the group. A group's cohesion may be expressed by the term *density*, which connotes "the general level of linkage among the points [nodes] in a graph" (Scott 2000:69f. [brackets added]). The density in a social network is mathematically defined as "the number of lines in a graph, expressed as a proportion of the maximum possible number of lines." The more points that are connected to one another in a social network, the denser will the network be (Scott 2000:70).

A third concept which will be used in the analysis is that of *centrality*. An individual's centrality in a network is "the count of the number of ties to other actors in the network" (en.wikipedia.org). A central node in a network is often called a *star*, i.e. "the person who is the most popular in his or her group or who stands at the centre of attention" (Scott 2000:83)[20]. Actors who have more ties have greater opportunities because they have more choices. In other words, the more ties actors have, the more power they (may) have:

> Actors who have more ties to other actors may be advantaged positions. Because they have many ties, they may have alternative ways to satisfy needs, and hence are

[20] Scott (2000) differentiates between 'local' and 'global' centrality. A point is locally central if it has a large number of connections with other points in its immediate environment. A point is globally central when it has a position of strategic significance in the overall structure of the network (Scott 2000:82). However, since the current study analyzes a relatively small network, it does not make use of this differentiation.

> less dependent on other individuals. Because they have many ties, they may have access to, and be able to call on more of the resources of the network as a whole. […] a very simple, but often very effective measure of an actor's centrality and power potential is their degree (Hanneman & Riddle 2005).

Individual's centrality and power in a network may be measured by their *degree*, i.e. the total number of other nodes in an individual's network. In the current study, the aim is to identify leadership actions as expressed through a social network pattern. The analysis is thus focused on identifying the leader's position in the group. Is she a central agent, and/or are there other central members in the group? How does, eventually, other members' centrality relate to their role?

The second research question in the present article is based on an assumption viewing email writing as a social action; workplace emails are written by social actors in pursuit of organizational and personal goals. This approach to written communication springs from speech act theory (SAT) and the basic idea that in saying something a speaker is performing a social action, a speech act (Austin 1962, Searle 1969). In the current study, posting email messages is seen as performing a social action. Consequently, seeking answer to the second research question in this study involves identifying the leader's speech acts.

The current study distinguishes between questions and requests as subtypes of directives. A request is a speech act expecting a response in the form of a verbal or a physical act. Hence, a request may involve both request for information (questions) and request for action. A request for information explicitly asks for a verbal response. Requests for action (such as task assignments) primarily elicit a non-verbal response, but they also create the expectation of a verbal display of acceptance or rejection (Lindström 1999). The function of an utterance is a matter of its sequential and contextual context. Requests for information (questions) and action may take several forms, such as the following:

> *Imperatives*: ”Please send me some old letters”
> *Interrogatives*: “Do you have his signature?” (Conveying “send it to me!”)
> *Declaratives* with a question mark (statements about B-events): “You're coming on Thursday?”

However, as Schegloff (1984) and Clayman & Heritage (2002) have pointed out, there is no one-to-one correspondence between an utterance's grammatical form and the action it accomplishes. Declaratives can function as questions and interrogatives can accomplish non-questioning actions. Furthermore, when interpreting/identifying utterances as speech acts, the analyst must take the sequential context into account (Schegloff 1984). According to CA-scholars (Schegloff 1984), utterances may be identified as requests if treated as such by the participants as displayed in subsequent recordings.

An additional feature of the context that is of special relevance here is the institutional activities and identities involved. Certain routinized patterns of action will influence the interpretation of individual utterances. For instances, the fact that the manager routinely assigns tasks to the project group members will make her messages more prone to being understood as requests than messages from other members. For instance, a task may be assigned by the mere mentioning of the type of work involved: "Textwork. Deadline is 17 Sept." This implicit formulation of the request presupposes a common understanding of the institutional context, including different communicative rights and obligations related to their respective professional roles. This implies that we need to look beyond the linguistic form and the sequential context to see whether there are organizational structures and procedures that contribute to determining the function of a certain type of utterance. The identification and classification of speech acts in the current study are conducted with respect to the message's sequential position in an email thread in accordance with CA-methodology.

The speech act taxonomy is developed from a data driven functional typology, identified inductively by close-reading the leader's messages in their sequential and organizational context. The speech-acts identified in this process established the coding categories in Table (6) below. In order to identify the speech act's sequential position, Linell & Gustavsen's (1987) concepts of "Initiative" (I), "Response" (R) were applied, rather than the "adjacency pair" concept in CA (c.f. 3.2.1). The notion of adjacency pairs stems from the study of spoken conversations. According to the definition, adjacency pairs are made of a sequence of two utterances produced by two different speakers (Schegloff & Sacks 1973:296). This implies that one has to identify both the first and the second pair part – in order to classify such a sequence. One basic difference between a written email interaction and a spoken dialogue, however, is that the spoken dialogue is synchronous, facilitating more frequent interchanges between first and second pair parts. Email, on the other hand, is asynchronous, and facilitates more complex exchanges of multiple speech acts in each message. In addition, the rules of responding are different in email interaction (Skovholt forthcoming). These characteristics of emails made it to difficult to code speech acts as first and second pair parts. However, the I-R method also involved some challenges, since each message may practically consist of multiple speech acts, for instance both initiatives and responses. Furthermore, all utterances are theoretically by nature responsive (Bakhtin 1984, 1986).

In the current study each message has been coded according to the dominating speech acts in the message. The coding work is based on utterances in individual messages and the fact that one email may include multiple speech acts, for instance it may simultaneously provide information, pose a question and make a request, which in turn may be directed at multiple recipients. Therefore, the coding procedure allowed more than one speech act for each message, but never more than the three most dominating. In order to compare the assigned leader's speech acts with the text-designer's speech acts in their Agenda emails, a quantitative speech act analysis was conducted. All messages produced by the leader (LM) and the text-designer (MM) were extracted from the data and coded according to a speech act coding scheme.

The speech acts were identified with regard to their sequential position. However, many of the messages did not receive any responses and could not be classified in light of the following response (in accordance with what CA-scholars propose). An email request may, for instance, be complied with appropriately in terms of a non-verbal response. Furthermore, a response-message may contain new initiatives. In such cases, the dominating speech act decided if the message was categorized as an initiative or a response. A great number of the messages classified as initiatives contained questions and requests. In this regard, all messages were classified according to the coding scheme, receiving a following response or not.

The focus in the current study is to identify leadership actions as they appear in the leader's email messages. However, the categories developed from SAT seem too general to capture the actions the leader actually performs in her emails. In order to differentiate and make subclasses of speech acts, the current study suggests a data-driven functional typology, identifying speech act categories from the leader's email messages in their sequential and organizational context. For example, meeting invitations are considered as one speech act category (to invite), as a subcategory of requests. In addition to initiative and response utteranses, what I have termed 'feedback' (F) -utterances[21] is identified. In the current study, feedback utterances constitute a broad category of *minimal responses*, i.e. "a turn which seems to do no more than is called for by prior speaker's precedeing turn" (Linell 1998:176). In the current study, minimal responses also include giving signs of understanding and alignment, providing acknowledgements and (weak) assessments (c.f. Linell 1998:174). Minimal responses may appear after both requesting and non-requesting messages, as well as in third position messages.

[21] The I, R and F concepts in the current study may seem similar to, but is not based on Sinclair & Coulthard's (1975) theory of IRF.

The results of the data-driven speech act classification are listed in Table (6). Examples from each category are listed in the appendices 1.

1. **Initiatives (I)**	2. **Responses (R)**	3. **Feedback (F)**
a) **IQuTask** = Initiative, Question, (information/task oriented) b) **IRequest** = Initiative, Request for action c) **IInform** = Initiative, Inform (non-requesting) d) **IInvite** = Initiative, Invite (to a meeting) e) **ISuggest** = Initiative, Suggest (ideas) f) **IPraise** = Initiative, Praise g) **ICongrat** = Initiative, Congratulate	a) **RAnsTa** = Response, Answer (task-oriented) b) **RAnsIp** = Response, Answer (interpersonally oriented) c) **RCompl** = Response, Comply with request d) **RAccept** = Response, Accept (an idea, invitation or suggestion) e) **RReject** = Response, Reject (an idea, invitation or suggestion)	a) **FEval** = Feedback, Evaluate (opinion) b) **FThanks** = Feedback Thanks c) **FAckn** = Feedback, Acknowledge (ok) d) **FPraise** = Feedback, Praise (Wonderful! Very good!)

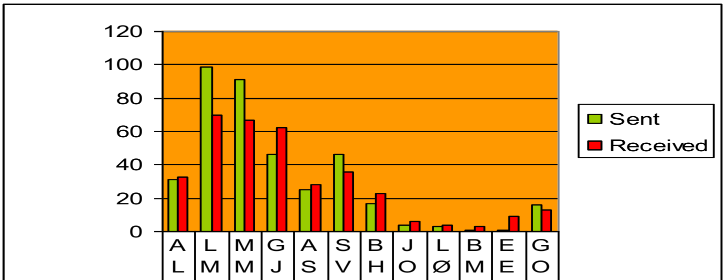
Table 6. Coding scheme of speech acts in email messages

The frequency analysis conducted in the current study may have some limitations with regard to reliability. The coding procedure is based on qualitative interpretations of language use, in order to classify an utterance as request, information, etc. This created a room for discussion and uncertainty. Since there is no one-to-one relation between an utterance's grammatical realization and its pragmatic function, the identification of a speech act is a question of dimensions in the institutional and sequential context. For instance, in the data, one example of the act of assigning a task to the text designer included only the elliptical form "Text work. Deadline 16th of September." Even though the grammatical form of this request is not typical for requests, by means of involving interrogative (Would you pls edit these letters) or imperative (Check these letters), the email functions pragmatically as a request within the institutional setting and with regard to the role-relation between the interlocutors. The coding process was based on this kind of pragmatic classification. The example above (Text work) shows an instance where categorization is a question of the coder's interpretation and leaves possible room for judgement and disagreement. "How-to"guides for content analysis suggest a step in the methodological process where reliability of coding is checked by involving two or more trained coders, i.e. interpersonal reliability (McMillan 2000:4). Given the predominantly qualitative focus of the study combined with strict time limits, the study did not ensure interpersonal reliability.

4.4 Analysis

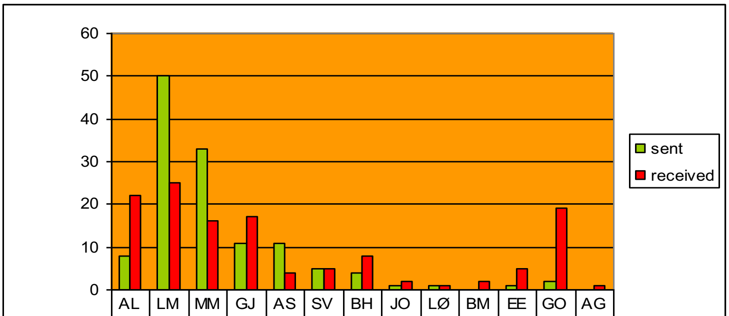
4.4.1 Exchange patterns in Agenda

In order to see if there is any individual difference in the member's sent and received messages, each member's sent and received messages to primary recipients, as well as their number of sent and received copies, were counted. The results are presented in Table (7) and (8).



	AL	LM	MM	GJ	AS	SV	BH	JO	LØ	BM	EE	GO
Sent	31	99	91	46	25	46	17	4	3	1	1	16
Received	33	70	67	62	28	36	23	6	4	3	9	13

Table 7. The Agenda-members' number of sent and received messages to primary recipients within the group



	AL	LM	MM	GJ	AS	SV	BH	JO	LØ	BM	EE	GO	AG
sent	8	50	33	11	11	5	4	1	1	0	1	2	0
received	22	25	16	17	4	5	8	2	1	2	5	19	1

Table 8. The Agenda-members' total number of sent and received copies within the group

Table (7) shows that the leader of Agenda (LM) is the one in the group who sends the most messages to the others, followed by the text designer (MM) and system operator (GJ). Both the leader (LM) and the text designer (MM) send far more messages than they receive. LM and MM send and receive almost twice as many messages as the other group members. In addition, the system operator (GJ) receives approximately the same number of messages as LM and MM, followed by SV. The editor of Agenda's homepage (AS) sends and receives half of GJ's total number of messages. From Table (7), we can also observe that BH, JO, LØ, BM, EE and GO only rarely participate in any email exchanges with others in the group. Finally, the information director (AL) sends and receives one third of the number compared with the Agenda-leader's number of sent and received messages.

Table (8) shows that the leader (LM) sends the majority of copies among the group members. She is followed by the text-designer (MM) and the system operators (GJ and AS). The leader (LM) also receives the largest number of copies, followed by information director (AL) and the member from customer service (GO), system operator (GJ), and the text designer (MM).

The total distribution of sent and received mail in Agenda may correspond to the individual's role and function in the group. The leader coordinates tasks, invites to Agenda meetings and she sends out practical information to individuals and the group as a whole. The text designer designs and edits letters, which she in turn posts to other colleagues for comments. The system responsible (AS) receives a great number of letters for implementing them in the data base. SV designs and edits letters, but to a lesser extent than MM. Interestingly, the individuals who participate less (JO, LØ, BM, EE and GO), left the group early in the project (BH, LØ) or became a member of the group in the final stage of the data collection (EE, BM).

The total distribution of sent and received copies shows that the Agenda leader receives the largest number of copies. She is followed by the information director (AL). Furthermore, the leader of Agenda (LM) is the person who sends the most copies. Approximately 50% of the Agenda leader's messages to primary recipients are also sent as copies. Next to the leader, the text designer sends the most copies.

In sum, the results of email distribution within Agenda propose that the leader sends and receives the majority of email and email copies. In addition, the results indicate that the text designer may possess a role as an informal or emergent leader, receiving and sending almost as many emails as the assigned leader. According to the literature on virtual leadership, emergent leaders produce more emails, take more initiatives, and provide socio-emotional support and feedback than other members (Julsrud 2007, Yoo & Alavi, 2004). Drawing on Yoo & Alavi (2004), the current study asks if the text-designer's (MM) number of sent and received messages correspondingly indicate that she possesses an emergent leader role. In order to address this question, it is necessary to examine her hierarchical position in the group in terms of who she is connected with as well as the content of her email messages, i.e. the speech acts she performs. Firstly, we are going to look closer at the sociometric relations within the group.

4.4.2 Sociometric relations

In order to trace the members' interaction pattern more thoroughly, each individual's email exchange has been identified, i.e. who sent email to whom and to what extent the relation is reciprocated? The sociometric analysis differentiates between messages sent to primary recipients (i.e. the recipients who are addressed in the to-field) and messages sent as copies to secondary recipients. The number of messages sent to primary recipients among the individual members in Agenda is presented in the matrix in Table (9). The rows represent the senders and the number of messages they have sent to every other member in the group. The columns represent the receivers and the number of messages they have received from other members. For example, the matrix illustrates that AL has sent 20 messages to LM, and in turn received 19 from LM. Figure (1) shows the associated graph.

	1 AL	2 LM	3 MM	4 GJ	5 AS	6 SV	7 BH	8 JO	9 LØ	10 BM	11 EE	12 GO	13 AG
1 AL	0	20	3	5	3	0	0	0	0	0	0	0	0
2 LM	19	0	18	11	12	1	2	3	0	1	5	2	14
3 MM	6	25	0	14	8	15	13	3	4	1	3	0	0
4 GJ	4	5	9	0	3	13	6	0	0	0	0	4	3
5 AS	2	9	5	2	0	1	2	0	0	0	0	1	3
6 SV	1	3	14	20	1	0	0	0	0	1	0	6	0
7 BH	0	2	8	6	0	0	0	0	0	0	1	0	0
8 JOB	0	1	3	0	0	0	0	0	0	0	0	0	0
9 LØB	0	0	3	0	0	0	0	0	0	0	0	0	0
10 BM	0	0	1	0	0	0	0	0	0	0	0	0	0
11 EE	0	1	0	0	0	0	0	0	0	0	0	0	0
12 GO	1	4	1	4	1	5	0	0	0	0	0	0	0
13 AG	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 9. Sociometry for primary recipients

The graph in Figure (1) shows each participant represented as a node (red bullet) and the relation between them as represented with lines. The graph illustrates strong (thick lines) and weak (thin lines) ties as they occur through the number of sent and received messages among the Agenda-members. Simultaneously, the graph illustrates whether the relations are reciprocal (green color) or not reciprocal (orange color). The direction of the email is marked by a black arrow-point, indicating sender and receiver. The node “AG” represents Agenda and is included in the network in order to show members’ messages sent to the group as a whole.

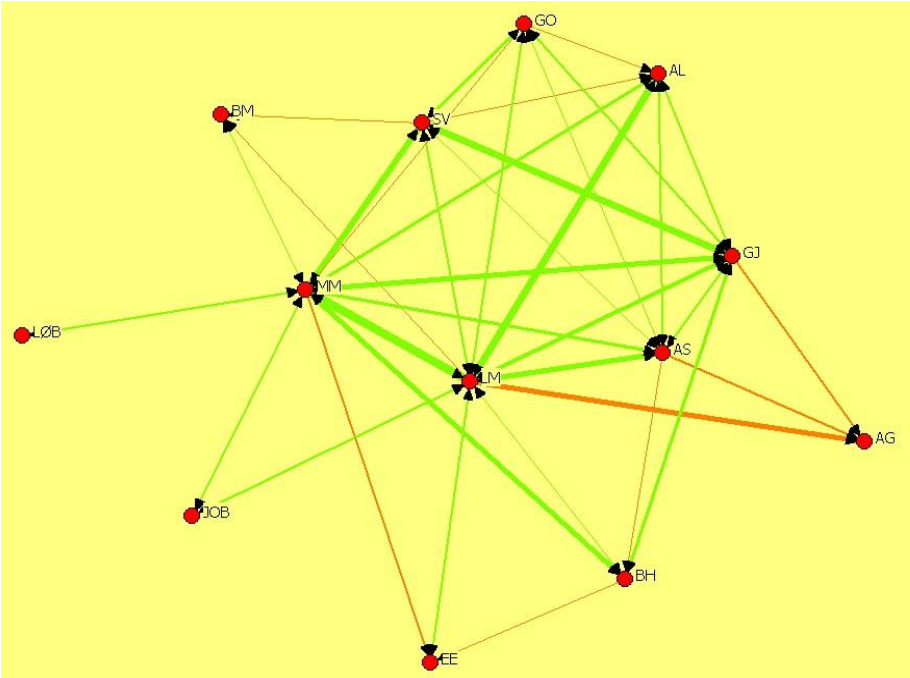


Figure 1. Graph representing the network structure (sent and received email messages) between Agenda members during the three-months of data collection

The sociometry and the associated graph show five interesting findings. First, the group appears as a relatively *densely connected group*, involving a *core* (LM, MM, GJ, AS, SV, AL) and a *periphery* (JO, LØ, BM, EE, GO, BH). This may indicate collaboration between many nodes in the network. The core members have more frequent contact and have more ties to other members than the members in the periphery. Second, the graph shows that there are some strongly connected *dyads*[22] in the group:

AL-LM
LM-MM LM-GJ, LM-AS
MM-LM, MM-GJ, MM-SV, MM-BH
GJ-SV

The leader (LM) and information director (AL), leader (LM) and system operator (GJ), leader (LM) and system operator (AS), the text-designer (MM) and the leader (LM), text-designer (MM) and member from ADSL (SV) and the system operator (GJ) and member from ADSL

[22] In the current study strongly connected dyads are reciprocal pairs who send and receive more than ten messages each.

(SV) constitute relatively strong dyads, compared with other related members in the group. This might indicate that the members in the strong dyads are collaborating more than others. According to Ahuja & Carley (1998:9-10) reciprocal relations in virtual teams indicate teamwork.

The third finding shows that only the leader (LM), the system operator (GJ) and the web editor (AS) post messages to the group as a whole, i.e. *"to all"-messages*, whereas the counts show that the Agenda leader posts the majority of these (n=14). Sending messages to all members in a group may be a leading device, i.e. a strategy to establish a common ground, and thus to unite the group as a whole.

Furthermore, the graph shows that the Agenda-leader (LM), the text designer (MM) and the system operator (GJ) are the *central members* of the group, i.e. the ones who have the most ties to other members. According to Ahuja & Carley (1998:9) a centralized network may reflect an uneven distribution of knowledge such that "knowledge is concentrated in the focal points of the network," and does not necessarily need to reflect a hierarchical network. Correspondingly, even if the Agenda group represents a small-scale network, the centralization of communication in Agenda may indicate that members who receive more email than others, i.e. the text designer (MM) and the two system operators (GJ and AS), rather possess *expert roles*.

Finally, the graph may indicate that the text-designer (MM) is the *star* and the "most popular" (Scott 2000:10) or central member in the network, with connections to every other member in the group. This confirms the impression that she is an emergent leader of the group. However, contrasting the leader's (LM) interaction pattern with the text-designer's (MM), shows that the leader frequently posts messages to the group as a whole (AG), while such messages are absent in the text-designer's emails. This is an interesting finding which may show that MM and LM do possess different roles in the group. The text designer (MM) has many ties to every other person in the group and thus has a great power potential (Hanneman & Riddle 2005). However, by frequently sending "to all"messages the Agenda-leader appears as a "spider" pulling the strings together in order to gather the group as a whole. Compared with the text designer who also seems to possess a powerful role, the leader's network pattern indicates that she has the overall *administrative position* in the group. In order to look closer at the leader's role and position in the network, the sent and received copies to secondary recipients have been identified (Table 10, Figure 2).

	1 AL	2 LM	3 MM	4 GJ	5 AS	6 SV	7 BH	8 JO	9 LØ	10 BM	11 EE	12 GO	13 AG
1 AL	0	**2**	1	1	0	0	0	0	0	0	0	**4**	0
2 LM	**16**	0	**6**	**6**	**4**	2	2	1	0	0	4	**8**	1
3 MM	3	**13**	0	**5**	0	2	4	1	1	0	0	4	0
4 GJ	0	**5**	2	0	0	1	1	0	0	2	0	0	0
5 AS	1	**4**	**3**	**3**	0	0	0	0	0	0	0	0	0
6 SV	0	0	1	0	0	0	1	0	0	0	0	3	0
7 BH	0	0	3	1	0	0	0	0	0	0	0	0	0
8 JOB	0	1	0	0	0	0	0	0	0	0	0	0	0
9 LØB	0	0	0	0	0	0	0	0	0	0	1	0	0
10 BM	0	0	0	0	0	0	0	0	0	0	0	0	0
11 EE	1	0	0	0	0	0	0	0	0	0	0	0	0
12 GO	1	0	0	1	0	0	0	0	0	0	0	0	0
13 AG	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 10. Sociometry for email copies

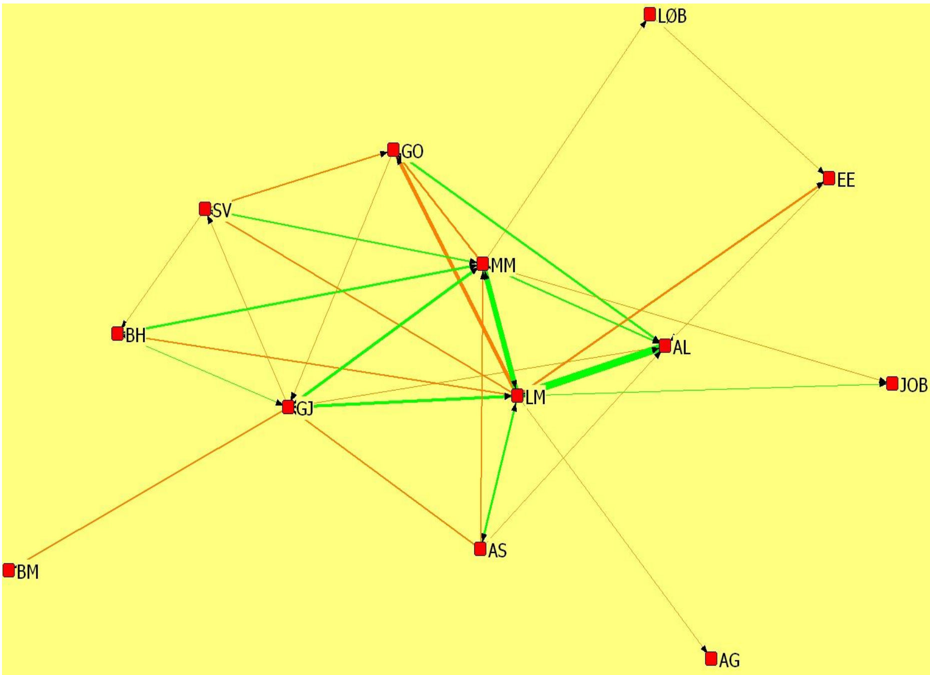


Figure 2. Graph representing the network structure of sent and received email copies between Agenda members during the three-months of data collection

The sociometry for email copies among the members of Agenda is listed in Table (4). It shows that the core-members (AL, LM, MM, GJ, AS) send and receive the largest number of copies, with a maximum of 50 sent (LM) and 22 received (MM) (See also Table (3), above). In addition, the core-members send only copies to each other, almost exclusively. The members in the periphery (BH, JOB, LØB, BM, EE, GO) send and receive the least number of copies, with a maximum of 4 sent (BH) and 19 received (GO). Interestingly, the four members who send the most copies, send these to a person ranked higher in the organizational hierarchy. Most of the copies are sent to the Agenda leader (LM) by the four central members (AL, MM, GJ, AS). The Agenda leader's copies report to the information director (AL). The text designer (MM), the system operator (GJ) and the web editor (AS), in turn report to the Agenda leader (LM).

The sociometry for email copies indicates that sending and receiving a large number of copies is typical for leaders. In addition, most of the copies are sent upwards in the hierarchy, either to the information director (AL), to the Agenda leader LM or to the text designer (MM). This finding utterly makes sense if we compare with the results from chapter 7. The study of email copies showed that email copies primarily served to provide information. However, copies were also used strategically in order to back up one's reasoning or seek support from superordinates in emerging conflicts. Hence, sending copies may be associated with some sort of control acts, typically involving leaders in a network.

Next to the leader (LM), the text designer (MM) is the one who in total sends and receives most copies. These results may utterly confirm the impression of the text designer as an emergent leader of the group.

To sum up, the network structure created by the messages to primary recipients and by messages to the in copied recipients indicates that the Agenda group predominantly works in dyads and exchange information at an individual level, rather than group level. Moreover, the network is centralized around the assigned leader (LM) and the text designer (MM) as the two focal points in the group, followed by the system operator (GJ) and web editor (AS). Unexpectedly, the text designer (MM), not the leader (LM), seems to be the most central member in terms of having the most reciprocal ties to others. She is consequently also in a position to exert her influence on the other members (Hanneman & Riddle 2005). However, the leader of the group (LM) is the one who sends the greatest number of copies and the only one who frequently sends messages addressed to the whole group ("to all"messages). She thus seems to have an *administrative role*. In contrast, the other central members in the group (MM, AS, GJ) seem to possess *expert roles*.

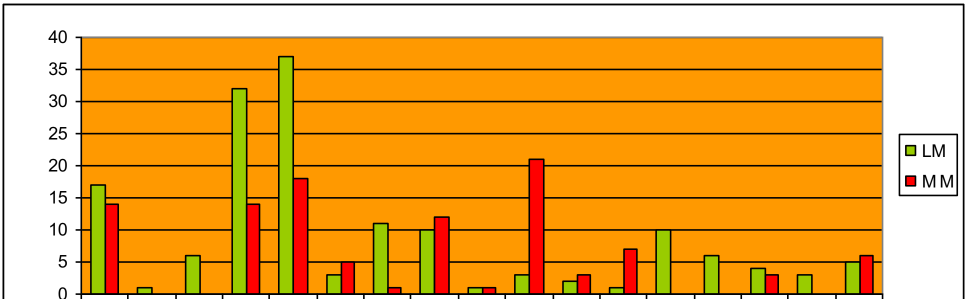
The quantitative results presented in this section show how the individuals in the Agenda-group actually exchange messages. However, how people actually work in distributed groups can not be discussed primarily from quantitative results. Emails may contain many genres (Kankaanranta 2005b) such as, for instance, purely informative messages; they may be more conversation-like, or simply contain an attachment file. Consequently, frequent messages do not necessarily indicate collaboration. This rather depends on the mail content and the activity it is embedded in. In addition, strong dyadic ties, as they appear in the graph, do not necessarily denote much team work, strong relations, or trust relations[23].

Previous studies on social networks in organizations, for instance Waldström (2001), 2004, indeed emphasize the need for knowledge about how things actually get done in organizations. However, this can not be pursued only through statistical methods such as SNA. In order to identify the actions individuals actually perform, this article suggests looking beyond pure statistics and analyzing in-depth the content of the messages. In order to see to what extent the Agenda leader (LM) possesses an administrative leader role and to what extent the text designer (MM) possesses an expert role or emergent leader role, the following section identifies their speech act distribution. What do the speech acts they perform indicate about their specific role in the group?

4.4.3 Speech acts in leaders' email messages

Table (11) shows the distribution of speech acts in the assigned leader's (LM) and the (potential) emergent leader's (MM) email messages. The results of the speech act classification show that the Agenda leader's (LM) messages are dominated by initiatives that contain information (n=37) and requests for action (n=32), followed by task related questions (n=17) and meeting invitations (n=11). The text designer's (MM) messages are dominated by compliance with requests (n=21), information (n=18), requests for action (n=14) and task related questions (n=14).

[23] Julsrud & Bakke (2007) showed by interviewing people, that members of a distributed team differentiated between work relations and trust relations. This indicates that ties in a social network may involve a range of different relationships.



	IQuTask	Welcome	IPraise	IRequest	IInform	ISuggest	IInvite	RAnsTa	RAnslp	Rcompl	RAccept	RReject	FEval	FThanks	FAckn	Fpraise	FCopy
LM	17	1	6	32	37	3	11	10	1	3	2	1	10	6	4	3	5
MM	14	0	0	14	18	5	1	12	1	21	3	7	0	0	3	0	6

Table 11. The distribution of speech acts in the leader's and the text-designer's emails

Speech acts	*Leader (LM)*	*Text-designer (MM)*
Question	17	14
Requests	**32**	14
Inform	**37**	18
Invite	**11**	1
Comply	**3**	**21**
Answer	10	**12**
Praise	**6**	0
Evaluations	**10**	0
Thanks	**6**	0
Acknowledgements	**4**	3

Table 12. Speech act distribution

Both the text designer (MM) and the assigned leader (LM) respond to approximately the same number of work related questions. However, the content of their responses are of different character. Whereas the text designer's responses contain expert knowledge (as in example 1c in the appendices), the leader's responses are to a great extent conclusive and point out the future direction for the group members such as, for instance, defining what kind of work their (the Agenda member's) domain includes (as in example 2a in the appendices).

Furthermore, the results show many differences between the leader's (LM) and the text designer's (MM) speech act distribution. On the one hand, the text-designer (MM) complies with far more requests and responds to more task oriented questions than the leader (LM) does (See Table 12). In addition, the text designer seems to be in position to reject other members' requests for actions. On the other hand, the leader provides more than twice as many requests for action and informative messages than the text designer. Interestingly, she also sends significantly more appraisals, thanks and evaluations than the text designer. Initiating tasks, inviting to meetings, providing requests for action and providing feedback seem to be typical actions for the Agenda leader (LM). Feedback responses such as receipts and acknowledgements are, in general, rare in Agenda's emails, but create a potential for displaying commitment and interpersonal involvement (Skovholt forthcoming). For virtual leaders, providing frequent receipts and acknowledgements may be a trust-developing device, displaying a high degree of presence. Giving feedback is also an institutionalized leader function and is contributing to constitute LM's leader role.

Looking at the distribution of the initiatives, responses and feedback in sum (Table 13), we can see that the leader (LM) distinguishes herself from the text designer by performing far more initiatives (104) and feedback (minimal responses as acknowledgements, evaluations, thanks and appraisals) (n=24).

	Initiative	Response	Feedback
MM	53	44	3
LM	104	17	24

Table 13. Initiative, response, feedback

Complying with requests and responding to task-related questions seem to be the typical actions for the text designer (MM). Besides editing letters on requests, she seems to be a person other members refer to in order to seek information. Giving co-members advice (by responding to task oriented questions and making suggestions) confirms the impression from the network analysis that she (MM) is in an *expert position*. Combined with her large number of total emails exchanged, her central position in the network and having the position to reject co-members' requests, this may utterly confirm that she represents an informal leader of the group. Furthermore, the leader's (LM) speech acts (requesting, inviting to meetings and providing feedback) indicate that her leader-role is less an expert role, but more an *administrative* and supportive one. The expertise is distributed to other members in the group, such as the text designer (MM), system operator (GJ) and web-editor (AS).

In sum, the speech act analysis showed that the two group members, who seemed to have the same central position in the network analysis, actually performed quite different speech acts in their email messages. This may indicate that they fulfill different roles. While the appointed leader (LM) seems to posses an *administrative role* (sending messages to the whole group, sending copies to inform, appraise and acknowledge the work of the others), the text designer seems to fill an *expert role* (editing letters on request from other group members or externals, responding to questions about orthography). Being in a position to reject requests she appears as a powerful person in the group.

4.5 Conclusion

The main goal with the current study was to examine how leadership is carried out in virtual teams. This was accomplished by analyzing quantitative and qualitative communication patterns in a leader's (Line Myhre) email exchange with her virtual team (Agenda). Compared with Bell & Kozlowski's (2002) description of leadership function, the Agenda leader Line Myhre seems to duplicate both the two major functions of leadership into the virtual environment, i.e team development and performance management. On the one hand, by frequently performing requests, informing and inviting to meetings, the Agenda leader fulfills the leadership function of performance management. On the other hand, by communicating frequently with her team members and providing feedback by means of sending acknowledgments and appraisals, she also contributes to creating and enhancing trust. These are communicative actions that contribute to team development.

The first quantification of the email messages showed that the team members' participation is unevenly distributed. The assigned leader (LM) sends and receives the majority of the messages in the group. Furthermore, the leader (LM) sends and receives the largest number of copies in the group. Next to the leader (LM), the text designer (MM) sends and receives the largest number of messages, copies included. From this initial analysis, the text designer (MM) is a potential candidate as an emergent leader in the group. These results correspond with Yoo & Alavi (2004) who showed that emergent leaders produce more emails than other participants in a virtual group.

The sociometric analysis showed that Agenda is a densely connected group, with the leader (LM) and the text designer (MM) as the two focal points. They appear as the two most central members of the group, having reciprocal ties to approximately all other members. In addition, other group members, such as the system operator (GJ) and web editor (AS), also possess central positions in the network. In the graph which represents the network relations, the leader and the text designer appear to possess positions of an equal level in the network. However, a difference is that the leader (LM) frequently sends messages collectively to all members. Sending messages to a group as a whole serves to ensure that all members receive the same sort of information and contributes to accumulating the group's common ground. Likewise, the network representation of email copies showed that the Agenda leader sends and receives most copies and sends copies to all individuals in the group as well as to the group as a whole. This makes the Agenda leader appear as the administrative "spider" in the network, gathering the group together and providing information. This distinguishes the Agenda leader from the text designer (MM), who does not send messages to the group as a whole. However, the text designer's central position in the group may indicate that she is the "star," possessing an expert role.

The social network analysis found evidence of centralization, due to the fact that communication is centralized around the leader and the text designer as the two focal points. Moreover, the fact that the leader sends many more messages and copies than she receives may indicate a hierarchic network structure. According to Ahuja & Carley (1998:9), a high score on the degree of hierarchy and centralization indicates a hierarchical and centralized network. Hence, the present findings may confirm Ahuja & Carley's study (1998) which concludes that virtual teams may exhibit hierarchic tendencies. The leader's and the text designer's number of messages and central positions contribute to creating the hierarchic structure. However, the hierarchy and centralization must be understood in light of the individual members' different roles and their expertise.

According to Ahuja & Carley (1998), a centralized network may also reflect an uneven distribution of knowledge. On the one hand, people in distributed groups are gathered from different institutions representing different expertise. One cannot expect that the participation should be totally even. In Agenda, the degree of participation depends on the individual's role and to what extent it is suited for the current task in progress or not. On the other hand, in Workplace communication some actions are restricted to institutional role. To post meeting invitations, for instance, is devoted exclusively to the leader, and must be regarded as a role specific action. Hence, the asymmetric relation between the leader's contributions compared with the rest of the group is not really a surprise. However, these findings may provide counter evidence to previous Internet studies viewing virtual organizations as more egalitarian and "flatter" than traditional organizations which were viewed as hierarchical and centralized. Conversely, the current study shows that hierarchies and organizational structures do get adapted into virtual organizations. In addition, by combining quantitative and qualitative results the current study provides practical insight into how hierarchical structures actually emerge. By showing structures of leadership actions by means of both network structure and speech act distribution, the current study contributes to concretizing the concepts/notions of "hierarchy" and "centrality" in previous studies (Castells 2000, Quan-Haase & Wellman 2006). In this respect, the current study confirms Ahuja & Carley (1998).

While the sociometry gave the impression that the leader (LM) and the text designer (MM) to some extent seemed to possess equal positions, the speech act analysis showed that there exists a clear differentiation of their roles. The speech acts in the Agenda-leader's (LM) emails are dominated by directives as questions and requests. She administrates the group by inviting to team meetings, performing requests, informing the group and providing feedback. The text designer (MM) is the one who complies with requests and gives answers to task related questions, offering her text-expertise to other members. These findings correspond to some extent with Vine (2004) (examining leadership conversation) who found that 93% of the control acts (requests and advices) in a work community were identified in the manager's speech. This is a result that indicates that performing requests is a typical leadership action. The current study confirms this finding. However, the findings in the current study differ from Kankaanranta (2005b) who found that providing (communication-related) requests does not follow corporate hierarchic structures. The data in the current study includes examples of members of Agenda who produce requests (for comments etc) and questions, but the leader typically produces the largest number of directive actions, such as requests for action.

In general, the speech act analysis showed that the leader (LM) takes many more initiatives than the text designer (MM). Furthermore, the Agenda leader (LM) provides more feedback than the text designer (MM). Whereas other studies focus on the request as the typical leadership action (Vine 2004), the current study shows that acknowledgements, thanks, evaluations and appraisals, are typical leadership actions as well. According to Jarvenpaa & Leidner (1999), explicitly verbalizing socio-emotional support may be a strategy to develop trust in a virtual team. Correspondingly, the leader's feedback actions must be interpreted as a communication device which contributes to signal presence, involvement and trustworthiness, despite the physical and psychological distance in the virtual environment. According to previous research, providing social presence may be a challenge for leaders of virtual teams (Zigurs 2003). The Agenda leader's frequent initiatives and feedback may be a strategy to meet this challenge. According to Quan-Haase & Wellman (2006), the technology facilitates constraint-free communication and hyperconnectivity, i.e. "the availability for people to communicate anywhere and anytime," even though the team-members are physically distant (Quan-Haase & Wellman, 2006:285). Email may thus foster social presence to a greater extent than face-to-face, in the sense that email messages are persistent and thus have more pervasive force. As the exchange patterns of the Agenda leader may show, this makes it possible for leaders to appear present and eventually powerful even at a distance. In this respect, providing feedback is an important management strategy in virtual teams.

The speech act analysis might strengthen the impression of a hierarchic structure in Agenda, as the network analysis indicated. However, as Ahuja & Carley point out, hierarchies should not necessarily be thought of as harmful. In order to coordinate members who are institutionally and/or geographically dispersed, there might be a need for tighter control (Ahuja & Carley 1998:24). When members are dispersed, the most efficient way of coordinating a virtual team and getting things done is to communicate frequently. This seems to involve both informing the team members as well as performing directives. By identifying network structures and analyzing speech acts, the current study has identified members' different positions in the network and individual roles within the team. However, identifying a hierarchical and centralized network is not equal to identifying a hierarchical leader, in the negative sense. Authoritative tendencies, in the sense of enacting power, may be more salient through a leader's *communication style*, rather than in the frequency of sending messages and producing requests (See Skovholt forthcoming).

Asymmetries and hierarchical structures in networked organizations are not necessarily dependent on the medium that is used. They are more likely a matter of organizational values, leadership philosophy, ethics and organizational culture than a matter of medium choice. However, centralization in email exchanges may reveal differentiated roles and work load, rather than expressing hierarchy and power enactment in a negative sense. The SNA graph may show some tendencies, but may never capture the whole truth of teams' and team leaders' communication practices and team participation.

To some extent, the analyses in this article seem to support Zigur's (2003) observation that we might find leadership roles shifting among members. The communication in the Agenda group seems to concentrate around the experts who more or less fulfill the function as emergent leaders within their field of expertise, such as the text designer. However, the team has a formally assigned leader who frequently performs important management functions, such as coordinating the team by informing, inviting to meetings, requesting and evaluating.

"In the increasingly complex and dynamic theories of modern organizations, there is a substantial lack of knowledge about the way things actually gets done, and how individuals interact socially within the organizations to facilitate this" (Waldstrøm 2001:3). This case study may have brought us one step closer to understanding how virtual teams, in general, work and leadership, in particular, actually is carried out.

Appendix 1. Typical examples of each speech act category.

Text designer (MM)		**Agenda leader (LM)**	
(1a) **Task related question** To: GJ From: MM Hei Geir Jeg har blitt bedt om å utforme en tekststreng som skal inn i våre brev […] men er dette teknisk mulig? Hilsen Maria	Hi Geir I have been asked to design a small text which is supposed to be merged with our letters […] but is this technically possible? Regards Maria	**(1a)** **Task related question** To: MM From: LM vild et si at Intenett og Mobil skal skrives med store bokstaver?? L	Doe sthat mean that Intenet and Mobile are supposed to have capital letters?? L
(1b) **Request for action** To: AS From:MM Til våre sider på portalen. :) Maria	To our pages on the portal. :) Maria	**(1b)** **Request for action** To: Agenda From: LM Ref dagens møte- kikk på eksemplene og tenkt på dette til neste møte den 26.08 Hvordan skal malen se ut og hvor mange har vi behov for mvh Line	Ref today's meeting – have a look at the examples and consider this to the next meeting the 26th of August What is the templates supposed to look like and how many do we need Rgds Line
(1c) **Information** Sent to LM, AS and AL From MM CC to GJ. Bare en enkelt	Just a minor comment: Customer responsible is	**(1c)** **Information** To: Agenda From LM Informasjon som idag er sendt ut til alle markedsområdene fra	Information which is sent to day to all marketing

Text designer (MM)		**Agenda leader (LM)**	
kommentar: Kundeansvarlig skal med liten k (i signatur for KS) -M.	supposed to be spelled with a small k (in signature for CS) -M	hver leder av arbeidsgruppe i Agenda Privat eks fra Telefoni og Birgitte: […]	divisions from each work group leader in Agenda Private ex from Telephony and Birgitte: […]
		(1d) **Meeting invitation** To: Agenda From LM **Emne:** Påminnelse om vårt første møte etter ferien 1908 kl 10-12 på L4d - med agenda Hei alle Brev-entusiaster! [meeting Agenda]	Subject**:** Reminder of our first meeting after the vacation 1908 at 10-12 in L4d – with agenda Hi all Letter-enthusiasts! [meeting agenda]
(1e) **Suggestion** From: MM To:LM Kan det være en idé å ta med en linje på Agenda's sider - i avsnittet om innleveringsfrister for eksempel - der det står: "Brev som Agenda skal gå gjennom, skal være i Word- eller pdf-format". Kan vi evt. sende den beskjeden til dem vi mottar flest brev til gjennomgang fra? Hilsen Maria	Would it be an idea to include a sentence in our website – in the section about dead lines for instances – where it says: "Letters which are going to be edited by Agenda are supposed to be in Word- or pdf-format". May we eventually send this message to those who sends us the most letters to edit? Regards, Maria	**(1e)** **Suggestion** Hei Arvid , Se breveksempel. - jeg ser at signatur er NN med tittel leder Internett og ikke direktør internett, jeg anbefaler at alle titler endres til den samme og at vi benytter Direktør Internett og ikke leder Internett Enig`? mvh Line	Hi Arvid, Look at the letter. – I notice that signature is NN with the title leader Internet, and not director Internet, I recommend that all titles should be replaced with one title and that be use Director Internet and not leader Internet. Agree? Rgds Line
(1f) Appraisal		**(1f) Appraisal** To:MM From:LM Copy:GO Hei Maria, nå har jeg akkurat vært i signingsrunde hos KS 05000 og fortalt om oss / AgendaPrivat. Da ble	Hi Maria, I have just arrived from a blessing round in CS05000 and presented us/AgendaPrivate. The

Text designer (MM)		**Agenda leader (LM)**	
		svarbiblioteket nevnt og jeg fortalte at du har god kontakt med NN og sjefen hans NN var glad for det. Ellers så syntes de at AP gjør en viktig og god jobb!! :-)	reply-library was mentioned and I informed that you are in touch with NN and his boss NN is happy with that. By the way, they think AP is carrying out important and good work!! :-)
(1g)		**(1g)** **Welcome** From LM To:EE Copy:MM Velkommen inn i Brevforum Privat, Elisabeth.[…] : -) Line	Welcome to Agenda Private, Elisabeth. […] : -) Line
(1h)		**(1h)** **Congratulate** Hei alle deltagere i Agenda! Les Bentes info denne måneden og les den godt for vi i Brevforum er nevnt!!! **Gratulerer med god jobbing og stå på, vi har fokus fra toppen**. mvh Line	Hi all participants of Agenda! Read Bente's info this month and read it thoroughly because we in Agenda are mentioned!!! **Congratul ations on the good work and keep it up; we have focus from the top.** rgds Line
(2a) **Response to task oriented question** To: GJ, AL Jeg mener at det skal være små bokstaver - det er hovedregelen for avdelingsnavn – […] Maria	My opinion is that it is supposed to be small letters – that is the main rule for department names- […] Maria	**(2a)** **Response to task oriented question** To: MM, EE Hei, dette er absolutt en Agenda Privat sak. Flott om arbeidsgruppen dial-up v/ Elisabeth i Agenda Privat følger opp denne med Morten Karlsen. Lykke til! mvh Line	Hi, this is absolutely a case for Agenda Private. Great if the work group dial-up w/ Elisabeth in Agenda Private follows this up with Morten Karlsen. Good luck! Rgds Line
(2b) **Comply with request** To: GJ Her har du Heibergs signatur. :)	Here's Heiberg's signature :)	**(2b)** **Comply with request** To:EE From:LM Hei Elisabeth, jeg har denne klar, men jeg vil diskutere med Arvid først før jeg sender den ut. Håper å få den ut i løpet	Hi Elisabeth, I have got this, but I'll have to discuss with Arvid first before I'm sending it out. Hoping to send it by

Text designer (MM)		**Agenda leader (LM)**	
		av torsdagen - da er nemlig Arvid tilbake på jobb mvh Line	Thursday – when Arvid is back. Rgds Line
(2c) **Accept** From:MM To:SV De ser jo ganske greie ut, men vi kan gjerne se på dem sammen hvis du foretrekker det slik. I morgen en eller annen gang?	They're looking rather okay but we might look at them in common if you prefer it that way. Tomorrow sometime?	**(2c)** **Accept** From: LM To: Agenda Hei Geir - ref din mail under; meget viktig punkt som alle ledere i de forskjellige arbeidsgruppene i AP sjekker med sin gruppe om eventuelle endringer. […]	Hi Geir – c.f. your mail below; very important issue which all leaders of the different work groups in AP will have to check out with their groups about eventual changes. […]
(2d) **Reject** From MM To:BH Jeg tør nesten garantere at jeg ikke rekker å gå gjennom alle de brevene før 8. november	[…] I can almost guarantee that I won't reach going through all these letters until Nov.8.[…]	**(2d)** **Reject** Hei Eva! takk for respons, men etter min mening noe omfattende […]	Hi Eva! thanks for your response, but in my opinion too comprehensive […].
(3a) Evaluate		**(3a)** From: LM To:AS flott!	Great!
(3b) Thank		**(3b) Thank** From: LM To:AS Hei Are, flott og meget ryddig! Takk mvh Line	Hi Are, great and very structured! Thanks Rgds Line
(3c) **Acknowledgements** From:MM To:LM Fint - no problemo :)	Good - no problemo :)	**(3c)** **Acknowledgements** From: LM To: AL OK L5f kl 14	OK L5f at 2PM
(3d) Appraisal		**(3d) Appraisal** From:LM To:AS Flott oppfølging, Are, du er meget ryddig og et flott svar til NN!	Great support, Are, you are very structured and a great reply to NN!

CHAPTER 5

Leadership Communication in a Virtual Team

5.1 Introduction

Leadership is primarily accomplished through communication. It involves managing many types of oral and written communication genres and thus requires good communication skills. Doing leadership *is* communication. To be a leader in the Internet Age additionally involves managing groups of people in virtual teams by use of written communication technologies, for instances email. This requires new forms of communication skills. However, very few studies address how virtual leadership is actually accomplished (Bell & Kozlowski 2002, Ahuja & Carley 1998, Fairhurst 2007).

This article examines how a leader of a distributed work group (Agenda) in a Norwegian Telecommunication Company (TCM) performs leadership using email as the primary communication tool. The study has primarily a discursive approach to leadership, i.e. examining leadership as it is practically unfolded through written discourse (Heritage 1984, Boden 1994, Holmes & Marra 2004, Fairhurst 2007). Within the frame of interactional sociolinguistics the study analyzes how leadership is linguistically accomplished in the leader's day-to-day email interaction with her subordinates. The main goal is to find out what kind of discursive devices the leader uses to engage, coordinate and maintain group performance in the virtual team. In terms of politeness theory, the study also examines how the leader, by performing requests, is positioning herself in relation to the group.

5.1.1 Defining leadership

Leadership is a complex concept which has been examined from many perspectives and across different disciplines. Moreover, to be a leader does not represent one single phenomenon, rather there may be many differences among individuals with regard to their leadership style (Holmes 2005:1780, Svennevig 2008: 2-3). Most of the studies on leadership have been carried out within the field of organizational science. Within this field, leadership has traditionally been defined as "the ability to influence others" in relation to "the achievement of a common goal" (Holmes 2005:1780). The previous studies on leadership have in general been preoccupied with evaluating good and effective leadership and attempting to identify factors that influence the success and efficiency of leadership (Holmes 2005:1780).

Furthermore, the traditional leadership theories have viewed leadership from idealized characteristics and tend to see leadership as a phenomenon embodied in persons (Fairhurst 2007:13). In the current study, leadership is defined as a *discursive phenomenon*, involving a person's *communicative skills*. Rather than analyzing leadership as a predefined phenomenon, the current study analyzes "leadership as it happens" (Fairhurst 2007:25) and views leadership as a phenomenon which is practically and repeatedly achieved in particular discourses by and through language use. This view corresponds with a project within interactional sociolinguistic called "Language in the Workplace." Scholars within this project define leadership as a "communicative performance":

> [Leadership is] "a consistent communicative performance which, by influencing others, facilitates acceptable outcomes for the organization (transactional/task-oriented goal), and which maintains harmony within the team or community of practice (relational/people-oriented goal)" (Holmes 2005:1780).

According to Holmes's definition, leadership is seen as a process, or an activity. With her words, the focus is on the "interpersonal interaction processes and the communication which takes place between people, rather than simply on what a leader achieves" (Holmes 2005:1780). As a practical consequence of the definition above, analyses of leadership include close reading of leaders' actual spoken and written exchanges. In the present article, this primarily involves the Agenda-leader's day-to-day email interaction with her group members, in addition to some of her external partners.

5.1.2 Defining virtual team

A virtual team is a group of people who collaborate across space, time, and organizational boundaries and use electronic media as the primary communication tool. Virtual teams are often composed of domain experts from multiple organizations or departments within an organization (Bell & Kozlowski 2002:13, Yoo & Alavi 2004). Virtual teams may take many forms. They may be local and include members who frequently meet face-to-face, or they may be global and include members who never or seldom meet (Jarvenpaa & Leidner 1999). Virtual teams may be permanent, or fluid (Saunders 2000:18). Moreover, they may be coordinated by a formally appointed leader, or they may be self-directed, i.e. "groups of interdependent individuals that can self-regulate their behaviours on relatively whole tasks" (Cohen & Ledford 1994).

Leading a virtual team involves other possibilities and challenges than leading traditional, co-located groups. On the one hand, the creation of distributed groups provides organizations the possibility to draw on professional competence that would otherwise not be available. On the other hand, when group members are dispersed, it is more difficult to create relationships and establish a shared common ground (Duarte & Snyder 2006, Cramton 2001). Therefore, according to the literature, building socio-emotional relations and trust among team members is crucial in virtual team work (Yoo & Alavi 2004, Jarvenpaa & Leidner 1999, Bell & Kozlowski 2002, Julsrud & Bakke 2007).

5.2 Previous research on leadership discourse

Relatively little is known about how leadership is actually carried out in computer-mediated conversation (Bell & Kozlowski 2002). However, a few studies have looked more closely at leadership *face-to-face conversations*. While several studies in Conversation Analysis (CA) have focused on expert-lay communication (cf. Arminen 2005, Drew & Heritage 1992), only a very few studies have explored leader-subordinate interaction (Clifton 2006, Asmuβ 2008). Within Interactional Sociolinguistics, researchers in the project called "Language in the Workplace" have conducted several studies on leadership conversations (c.f. Holmes 2005, Holmes & Marra 2004, Vine 2004, Stubbe et al. 2003). These previous studies on leadership conversation establish useful background knowledge for the current study on virtual leadership

How leadership is carried out in *virtual teams* has primarily been studied in organizational studies. These either address emergent leadership (Yoo & Alavi 2004), or explore leadership as a pre-formulated position, presenting assumptions on how virtual leadership ideally should be accomplished (Bell & Kozlowski 2002). In what follows, the most relevant research from both conversational studies and organizational studies is reviewed.

5.2.1 Leadership discourse

Scholars from the "Language in the Workplace" – project analyze leadership conversations predominantly with reference to gender differences and, moreover, to how power is enacted in leadership discourse (Holmes 2005, Holmes & Marra 2004, Mullany 2004, Stubbe et al. 2003). The studies in their project use examples from interactions recorded in a number of New Zealand workplaces. In general, their analyses seem to agree that there exists a "consensus view" (Vine 2004:167) of power in the workplaces. There seems to be a tendency towards minimizing power differences in the interactions between individuals of different status, between leaders and their subordinates. This is done by using different types of positive politeness strategies in order to mitigate the repressive content of an utterance. One such strategy is the use of humor. Inspired by the Language in the Workplace project, the sociolinguist, Mullany (2004), shows how leaders use humor as a linguistic strategy to hide the use of power when attempting to gain compliance from subordinates in business meetings. By using humor, the meeting chair disguises the oppressive intent of their messages and minimizes the status differences.

Power may also overtly be expressed in leader's talk, as explored in Vine (2004). She focuses on the overt expression of power in management style. By combining a quantitative and qualitative method, Vine shows how leaders "do power" in the workplace. Drawing on speech act theory, Vine (2004) identifies and counts what she calls the "control acts" in the data (mainly directives, requests and advices). According to the author, previous studies on people's perception of control acts and which forms (imperatives, declaratives, interrogatives) are appropriate to use, show that ”more powerful people are seen as having the right to use direct forms such as imperatives" (Vine 2004:153). The author thus expects to find a preponderance of forceful forms (imperatives) in the data. The imperative is considered to be a very forceful way of giving a directive, while the use of an interrogative is considered to be the least forceful. The results showed that only 7% of the control acts were directed at the two leaders, while 93% of the control acts were identified in the managers' speech. In other words, managers perform requests to a far greater extent than subordinates do. Furthermore, the directive head acts were expressed as imperatives, interrogatives and declaratives. However, imperatives account for 28% of the head acts. The largest proportion is expressed as declaratives.

Vine's results indicate that leaders favor request forms which are less powerful. By using politeness theory she shows the ways that leaders in this workplace mark or minimize power differences when performing requests. Control acts were in general mitigated and Vine (2004) finds that communicating and maintaining good relations with people play key roles in this workplace (Vine 2004:165). Of great interest for the current study, Vine (2004) concludes that the leaders "use a range of forms to express control acts and always use mitigation. The power relations between the Managers and their staff is evident in the number of control acts uttered to them, but is not necessarily apparent in the way these are realised" (Vine 2004:165 [my emphasis]).

The studies from the "Language in the Workplace" project show leaders who tend to minimize power differences. While the power is enacted explicitly through frequent requests, these requests have a linguistic form which mitigates the power of the request.

5.2.2 Leadership in virtual teams

While the New Zealand project examines leadership conversation, the current study investigates leadership performed through email. Within the research on virtual teams and virtual leadership, only a handful of studies examine what leaders actually do through email discourse. However, none of these examine leadership discourse within a linguistic framework.

Many scholars have paid attention to the role that *trust* plays for the success of virtual teams (Iacano & Weisband 1997, Jarvenpaa & Leidner 1999, Yoo & Alavi 2004). For example, in a study on trust in global collaborative student groups, Jarvenpaa & Leidner (1999) combine statistical/quantitative (surveys with questions of trust) and qualitative methods (naturally occurring emails) in order to find out whether or not trust exists. Jarvenpaa

& Leidner (1999) found that *initiative* strengthened and unified the team, but that providing *response* was even more important. According to Jarvenpaa & Leidner (1999), response is a trusted behaviour because it signals involvement. In addition, communication around tasks and project also appears to be necessary to maintain trust. Social communication that compliments, not substitutes, task communication, may strengthen trust and members have to explicitly verbalize their commitment, excitement and optimism (Jarvenpaa & Leidner 1999:811). Similar results as in Jarvenpaa & Leidner (1999) were found in Iacano & Weisband's (1997) investigation on trust. In a study on emergent leadership in a self directed virtual team, Yoo & Alavi (2004) found that emergent leaders produce more emails, take more initiatives, and provide more socio-emotional support and feedback than other members. Hence, the studies on virtual teams seem in general to agree that trust may be created by both task related messages in combination with explicitly verbalizing socio-emotional relations.

Even though the scholars above base their findings on actual email discourse, *doing virtual leadership* is not an issue in itself. Scholars who do involve virtual leadership are Bell & Kozlowski (2002). They have developed a typology of virtual teams in order to draw implications for virtual leadership. However, their typology is not based on actual instances of email interaction, but on traditional models of leadership functions, i.e. normative models which identify general leadership functions which need to be accomplished in all teams. According to Bell & Kozlowski (2002) the two major functions of leadership are *team development* (the development and shaping of team-processes) and *performance management* (the monitoring and management of ongoing team performance and progress toward task accomplishment) (Bell & Kozlowski 2002:5-7. The challenge for virtual leaders is to duplicate these functional roles into the virtual/distributed environment (Bell and Kozlowski 2002:8).

The leader of a virtual team may have various challenges, dependent on the characteristics of the team. Bell & Kozlowski (2002) outline four general implications virtual teams may have for their leadership. Firstly, they suggest that teams operating in real time make it easier for the leader to perform "critical performance management functions" and "development functions" (Bell & Kozlowski 2002:35-36), compared with teams operating across time. Second, when teams cross institutional and cultural boundaries, often having different values and different sets of work procedures, it is more difficult for the leader to create coherence, or link the employees together "so that they are 'insiders' in the team." This can be accomplished by building a unique "third" culture (Bell & Kozlowski 2002:37). Third, it is more difficult for leaders to establish norms in virtual teams with a more discrete lifecycle, than in teams they have been together with longer. Finally, a leader's management becomes difficult when team members hold multiple roles within and across different virtual teams. To counteract role conflicts, leaders need to clearly specify each member's role in the team (Bell & Kozlowski 2002:40).

Whereas Bell & Kozlowski's leadership functions outline normative expectations of leadership, the current study aims at examining leadership as it is practically unfolded through email discourse. Bell & Kozlowski's emphasis on creating coherence and a "third culture" seems relevant for the current study.

Since none of the previous studies on leadership investigates leadership as it is actually displayed through computer-mediated interaction, there seems to be a need for descriptive and qualitative work on virtual teams with an explicit focus on the discursive processes involved (Ahuja & Carley 1998:17, Bell & Kozlowski 2002: 47, Fairhurst 2007:1, Asmuβ & Svennevig 2009). Hence, the current study seeks to answer:

1. How is leadership carried out linguistically through email interaction?

In order to answer this question, this study focuses on email interaction in one particular group, Agenda, addressing the following research questions:

2. How does the leader of Agenda promote in-group solidarity?
3. How does the leader of Agenda position herself vis-à-vis her subordinates?

5.3 Data and methodology

5.3.1 Data

The data for this study are emails collected from a distributed project group called "Agenda" in a Norwegian telecompany, "Telecom" (TCM). The leader of this group is called Line Myhre (LM)[24], and she is the person whose discourse is being analyzed. The email exchanges were gathered from August 2004 to December 2004 and amount to approximately 700 emails,

[24] All the names of persons, groups and departments in the data are replaced by pseudonyms.

of which 300 contain in-copied recipients. The messages were collected with assistance from the Agenda members who, during the period, continuously forwarded their exchanges to the researchers.

Agenda's main task is to edit all confirmation letters that are distributed to customers in the private market. The members formulate, revise, and standardize letters and templates, with the purpose of giving all letters a uniform style that communicates in a clear and polite way to the customers. They are frequently contacted by various divisions in the company with requests to reformulate their letters. In order to give the letters a unified tone, they follow a set of guidelines concerning orthography, sentence structure, and style. The project group consists of 11 members, each representing a team from the different divisions of the company: *Telephony*, BH/BM; *ADSL*, SV; *Dial-up*, LØB/EE; *Mobile,* JOB; *Customer Service*, GO; *Credit,* LL; and *Invoice*, JE. In addition, Agenda includes *text designer* MM, *system operator* GJ, and an observer and *system operator* from another division, AS. The manager of the project group is LM, and she in turn reports to AL, the Information Director of TCM Private. The members' initials and affiliation to the group are presented in the overview in Table (14) below.

AL = Information director	SV = Dial-up-letters
LM = Assigned leader of AG	BH = AG's mailbox, Telephone-letters
MM = Text designer	JO = Mobile-letters
GJ = System responsible (implementing letters)	BM = Telephone-letters
AS = System responsible (AG's homepage, Internet)	EE = ADSL-letters
	GO = CS (Custumer Service)

Table 14. Overview of the members in Agenda (AG)

The Agenda group reorganized twice during the period data was collected. LØB was replaced by EE in the first week and BH was replaced by BM by the end of the data-collection period. Except from these changes, the rest of the members were (more or less) active in the group for the whole period.

The senders and recipients of the messages are primarily Agenda members. Some messages also include group externals who collaborate closely with Agenda. Most of the members in Agenda are physically located in different departments and even in different parts of Norway. They have occasional meetings at the main office, but most of their communication is carried out by email and telephone. The members usually interact in dyads, sometimes with selected co-members copied in, and seldom address the group as a whole. Some members are more active than others, for instance text designer MM, manager LM, and the system operators GJ and AS. Yet all of the members are represented in the data. The members also interact with external collaborators within and outside of TCM, such as employees at the printing center ‘Strålfors’ and members of Agenda Business.

In addition to the email collection, extensive ethnographic and interview data were collected in order to contextualize the communicative practices. The emails were originally written in Norwegian, but are translated into English here. The translations are idiomatic, rather than word-by-word, in order to keep the style as authentic as possible.

5.3.2 Methodology

The research questions spring from a theoretical assumption which views language usage as a basic component of what social relations are made of. Within the frame of politeness theory (Brown & Levinson 1987), analyzing language usage coincides with discovering how social relations are constructed. In order to build a universal model of how social relations are constructed linguistically, Brown & Levinson (1987) build their theory on Goffman’s (1967) notion of *face*, our public self image when participating in interaction. According to Brown & Levinson (1987), all rational agents have two particular wants; the want to be unimpeded, a *negative face*, and the want to be approved of, a *positive face*. In social interaction, the participants share a mutual interest of maintaining each other’s face. However, acts which threaten face, such as for instance performing a request, are called ‘face-threatening-acts’ (FTA). When a speaker needs to perform an FTA, she may use one of five different strategies. She may perform the FTA directly, *without* redressive action (Strategy 1 - going baldly on record. Ex.: “Reformulate the letter”); she may perform the FTA *with* compensation, by using either positive (Strategy 2. Ex.: “You are doing excellent work, but would you please reformulate the letter”) or negative (Strategy 3. Ex.: ”I know you are busy, but could you pls reformulate the letter”) politeness strategies. The speaker may choose to perform the FTA indirectly (Strategy 4 - off record. Ex.: “The letter needs some justifications”), or simply avoid doing the FTA (Strategy 5) (Brown & Levinson 1987:69).

By ”redressive action” Brown & Levinson (1987) mean “action that ”gives face” to the addressee. This is action that attempts to counteract the potential face damage of the FTA by doing it in such way (…) "that indicates clearly that no such face threat is intended or desired, and that S [speaker] in general recognizes H's [hearer] face wants and himself wants them to be achieved" (Brown & Levinson 1987:69-70).

A request is a speech act expecting a response in the form of a verbal- or a physical act (Searle 1969). It is an expression of the speaker's need to get the hearer/reader to act. According to Brown & Levinson (1987) speakers assess the seriousness ("weightiness") of an FTA. This involves assessing the social distance between the participants, the relative power and the ranking of the imposition in the particular culture (Brown & Levinson 1987:74f.). The greater the imposition of a request is, the more the individual needs to compensate for the FTA, using politeness strategies to minimize the threat.

In Workplace interaction where the participant's institutional roles and the organization's need are in the foreground, complying with requests is more or less part of employees' job description. According to the business communication researcher, Kankaanranta (2005b):

> The ranking of impositions within a company is affected by the job descriptions of the participants; for an outsider an imposition may seem heavy but if it is part of a staff members' job description to do it or if the staff member has a legitimate right to presuppose it done, then requests involving the imposition will be handled as routine (Kankaanranta 2005b:111).

Depending on the employees' positions, they have a legitimate right to make requests or comply with requests. Hence, giving requests is a part of the routine, and will be treated as the routine. However, the linguistic realization of the request provides interesting information about the social distance between the participants. Correspondingly, the linguistic realizations of the Agenda leader's requests in the current study may signal how she positions herself vis-à-vis her subordinates.

Brown & Levinson's politeness theory has been criticized in numerous articles, for instance for being unable to account for the multifunctionality of linguistic strategies (Spiers 1998), and for ignoring inter-cultural differences on politeness (Mills 2002). The current study takes an interactional approach to politeness (Arundale 1999).

In order to examine how the leader of Agenda linguistically accomplishes her leadership role, I copied her emails (n=99) and placed them in a word document. In order to answer the first subquestion, how she promotes in-group solidarity, I close-read all her messages and looked for linguistic markers (contextualization cues) of informal and personal style. These cues included addressing devices, metaphors and personal expressions of engagement. In order to examine the second subquestion, how the leader positions herself in relation to the group, I identified the leader's politeness strategies when making requests.

5.4 Analysis

5.4.1 Promoting in-group solidarity

The Agenda-leader uses an informal, personal and emotional style in most of her messages to the team. This may be seen in how she addresses the group as a whole, how she creates narrative schemas for the group to identify with, and in how she performs requests.

When posting messages to the whole Agenda-group, the leader addresses the members by using positively loaded nick names:

(1)

Hi all **Letter-enthusiasts**![25] Arvid, could you let me have our BI-guest's email address?	Hei alle **Brev-entusiaster**! Arvid, kan du gi meg mailadressen til vår BIgjest?

(2)

Hi **"Agendaese"** and especially welcome to Elisabeth, our new member from Internet who will attend the first hour.	Hei **"Agendaere"** og spesielt hjertelig velkommen til Elisabeth, vårt nye medlem fra Internett, som vil stille i den første timen.

In (1) and (2), the leader addresses her group by giving them characterizing nick-names ("Hi all letter-enthusiasts", Hi "Agendaese"). The nick-names function as attributive categorization devices. By selecting these words the sender creates a category which serves to characterize, include and even compliment the receivers. Alternatively, the leader could have selected more neutral greetings, such as for instance "Hi", "To all members of Agenda", "Dear Agenda-members" etc., in order to signal more distance. Assigning her group positive characteristics in the salutations signals liking, solidarity and contributes to creating a picture of a unified and well-functioning group. The addressing devices function as closeness strategies which promote group belonging and a positive identification with a community.

The Agenda-leader uses additional rhetorical resources to create an attractive image of the group. In the communication with text-designer, information director and the group as a

[25] Bald faces are added to focus on words or expressions which are emphasized in the analysis.

whole, the leader uses a certain metaphor. From the start of its existence, Agenda has pursued a central role in the different divisions of Telecom, so that more employees may benefit from their letter services and linguistic/stylistic expertise. To promote her work group, the leader introduces Agenda for different divisions in the company, a project which she calls the "blessing-round" and the "blessing-journey" in her messages to the group:

(3)

Hi Maria, I just came from the **blessing round** at CS and told about us /AgendaPrivate.	Hei Maria, nå har jeg akkurat vært i **signingsrunde** hos KS og fortalt om oss / AgendaPrivat.

(4)

Hi all of you! […] I would like us to go through some bullet points from the agenda before we move on to the work-list. - Status from the **blessing journey** by Line	Hei alle sammen! […] Jeg har lyst til at vi tar noen punkter før vi tar AP-listen. - Status fra **signingsferden** v/ Line

The metaphors "blessing round" and "blessing journey," which the leader LM humorously uses in example (3) and (4), draw an inter-textual reference to the Norwegian royal couple and their blessing journey in the monarchy of Norway in order to get the people's blessing. By drawing a parallel between Agenda's presentation project and the royal blessing journey, the leader places her group members in a narrative scheme, where the group's position in the organization appears as important as the royal's. By playing with a (in Norwegian context) well known narrative schema, she may contribute to building a success story which the participants may mirror themselves in. The Agenda leader even presents this project as to "sell in" Agenda to different divisions:

(5)

[…] I'm leaving for a meeting now, but will be back after 3PM. **I am going to sell AgendaPrivate** to the Marketing Division today :-) *With best regards* Line Myhre	[…] Jeg går i møte nå, men tilbake etter 15. **Skal selge inn Brevforum Privat** i Markedskommunikasjon idag :-) *Med vennlig hilsen* Line Myhre

By using metaphors from the world of finance and market economy, she presents Agenda as a valuable product which may be sold. By using this rhetoric, she utterly presents Agenda as an attractive group.

The Agenda-leader informs her group of their results and how their work is getting evaluated by the top managers. She also congratulates them explicitly when they have achieved good results:

(6)

Hi all participants of Agenda! Read Bente's info this month and read it thoroughly because we in Agenda are mentioned!!! **Congratulations on the good work and keep it up; we have focus from the top.** rgds Line	Hei alle deltagere i Agenda! Les Bentes info denne måneden og les den godt for vi i Brevforum er nevnt!!! **Gratulerer med god jobbing og stå på, vi har fokus fra toppen**. mvh Line

(7)

Hi all AGP-ese whom I scared to death last week…. I have calmed down now; not so hyper without medicines anymore… **BUT the focus from the directors is still strong so just keep it up ;-)**	Hei alle AGP'ere som jeg skremte vettet av i forrige møte.... Jeg har nå roet meg ned; ikke fullt så hyper uten medisiner lenger... **MEN fokuset er fortsatt sterkt fra ledelsen så her er det bare å stå på ;-)**

In (6) and (7), the leader tells her group that they are drawing attention from the top management, and simultaneously encourages the group to work hard. TCM is a large, multinational corporation with approximately 1100 employees in Norway. The distance between the top management and employees is great, and in this context there might be strong competition in gaining attention from the leaders, and to be noticed and appreciated as an employee. When the Agenda-leader repeatedly stresses that the Agenda-group has focus from the top, and even congratulates them, she is creating a picture of Agenda as a unique group, with great importance and value for the company. This might in itself serve as a rhetoric device to motivate the group and create stronger inside-relations.

The next section (5.4.2) identifies how the leader is positioning herself vis-à-vis her subordinates. Quantifications made in a forthcoming study[26] of the Agenda-group showed that the Agenda-leader in sum sent the most messages in the group, and that her dominating speech acts were requests. Hence, a great part of the leader's work consists of telling others to do something. According to politeness theory (Brown & Levinson 1987), asking someone to do something is a face-threatening act (FTA). The analysis examines how the Agenda leader

[26] i.e. Chapter 4 in this thesis.

linguistically presents the request. To which extent does she mitigate the requests by using positive or negative politeness? What does the linguistic form of her requests signal about the position the leader is taking towards her subordinates?

5.4.2 The leader positioning herself vis-à-vis subordinates

The Agenda leader performs requests by using positive politeness strategies (strategy 2) in most of her requests to her team members. She compensates for the FTA by presenting the request as wishes and hopes, rather than commands. The constructions that are most frequent are “I need help from you to”, “Hope you have/can” and “nice if”:

(8) **I need help** from you concerning the budgets of letters, internet and mobile […]	**Jeg trenger hjelp** fra dere vedr dagens budsjetter for brev fastnett, internett og mobil […]
(9) **Hope it is possible** for you to contact […]	**Håper du har mulighet** til å ta kontakt […]
(10) **Hope you may respond** by Wednesday at 4PM.	**Håper dere kan svare** innen onsdag kl 1600.
(11) […] but **nice if you** send me your comments on email – progression is important […]	men **det er fint om du** sender meg innspillene på mail - viktig at vi kommer videre

The Agenda-leader’s requests are formulated as declaratives, rather than interrogatives or imperatives. Furthermore, the requests are formulated as needs, hopes and wishes. She expresses herself in psychological terms (wishes and hopes), rather than in normative ones (obligation). By presenting the requests as a *need* for help, a *wish* or a *hope*, the leader presents the request as a *personal wish*, rather than an *institutional obligation.* All in all, this contributes to downgrade her institutional role, in favor of a more personal role. Alternatively the Agenda-leader could have presented her requests in a normative way, for instance by using interrogatives and imperatives. These are more explicit ways of enacting institutional power. However, by using less forceful strategies and presenting the requests as needs and hopes, the leader is presenting the requests as speech acts that need little compensation. She is optimistic, assuming that the recipients will comply with the request, something which simultaneously implies common ground and familiarity with the recipients. Instead of explicitly enacting power, the Agenda-leader downgrades her institutional role, in favor of building socio-emotional ties with her subordinates.

Furthermore, the Agenda leader also goes off record (strategy 4) in performing the requests. She does not perform the request directly, but leaves it to the recipient to interpret the request out of the context or workplace routine:

(12)

Are, concerning our talk. Here comes the document which sums up the signatures. **At the bottom on the page you have an A-point for Business and Networks**	Are, ref dagens samtale. Her kommer dokumentet som oppsummerer dagens signaturer. **Nederst på siden har du et APunkt for Bedrift og Networks**.

In example (12) LM presents a declarative to the system responsible AS. In light of the institutional context, the declarative must be interpreted as a request. An “A-point” (Action point) in Agenda is a task description. When system responsible receives one, he knows that it is a request. By using the declarative form, the leader LM avoids presenting the request directly, and thereby she manifests less power.

Another indirect strategy LM uses is to perform directives laterally, through so called informatives. Statements directed to a primary recipient in an email message may function as an indirect request to secondary recipient who receives the email as a copy (Skovholt & Svennevig 2006).

(13)

Arvid will return to you on this point L	Arvid kommer tilbake til deg på dette punktet L

In example (13), Arvid is a secondary recipient, i.e. the mail is CC-ed to him. In the sentence in (13), LM performs two speech acts, one directly to the primary recipient – a statement, and one indirectly directed to AL, as an indirect request. As in example (12), the leader leaves it up to the information director to identify the request from the context and comply with it.

So far, we have seen that the Agenda-leader uses positive politeness (strategy 2) and indirect strategies (strategy 4) when performing requests to the members of Agenda.

However, when the Agenda-leader performs requests to, or negotiates with, partners outside of Agenda, she uses more direct strategies. These are often followed by a warrant, or are anchored in her professional role as a leader:

(14)

Hi Lise Marit,
Long time no see : -) I hope everything is okay in Steinkjer!! We in Agenda need your help to find concrete examples of sms's which we send our customers from Steinkjer. **Our leader in TCMP, Bente Knudsen, requested an overview of the sms-texts. Will you […]**

Thanks in advance.
Rgds Line

Hei Lise Marit,
lenge siden sist:-) Håper alt står bra til i Steinkjer!! Vi i Brevforum trenger din hjelp eller andre ipå KS i Steinkjer - for å finne konkrete eksempler som vi sender til kundene våre på sms fra Steinkjer. **Vår leder i Privat, Bente Knudsen har bedt oss i AgendaPrivat om å få en oversikt på eksempler på sms'er. Kan du** […].

På forhånd takk for hjelpen.
mvh Line

(15)

Hi Katrine!
In Agenda we have for a long while worked with signatures **from Bente's wish** – and created a document for signatures in letters from TCMP. See attached document. […] **Can we** [...]?

Thanks in advance!!!
Rgds Line

Hei Katrine!
I Agenda har vi jobbet lenge med signaturer **etter Bentes ønske** - og kommet opp med et samledokument for signaturer i brev fra TCM Privat. Se vedlagte dokument. […] **Kan vi** gjøre dette uten videre eller må vi søke PT om aksept for forslaget?

På forhånd takk for hjelpen!!!

mvh Line

(16)

Hi Stein! Thanks for info about a very good service! **As leader of AgendaPrivate** I have some comments/quest:
[…]
- Concerning Per Harald's title **it was decided in Bente Knudsens meeting** that the title is […] and nice if the title could be changed to this in your letter.

Rgds Line

Hei Stein! takk for info om en meget bra tjeneste! **Som leder i AgendaPrivat** har jeg noen kommentarer/ spm:
[…]

- Når det gjelder tittelen til Per Harald **er det besluttet i Bente Knudsens ledermøte** at tittel er Direktør Internett og det er fint om tittel endres til denne tittelen i ditt breveksempel.

mvh Line

In examples (14), (15) and (16) the speech acts are directed to partners outside of the Agenda group. The leader's requests are more direct, or baldly on record, than the request to her subordinates. The requests are formulated as interrogatives (Will you […], Can we […]).

According to Brown & Levinson (1989) utterances such as: ”Can you pass the salt” are indirect, but have become fully conventionalized and the FTA is no longer off record. In addition, in (16) LM refers to her own role as a leader, before she presents the request. This is a way of providing a contextual frame for the request as well as legitimizing her right to perform requests. In (14) and (15) she refers to her superordinate, Bente Knudsen, also to legitimize and ground her request. In both examples, LM explicitly addresses and makes relevant her own authority or a hierarchical position, in order to account for the request. This may be an efficient strategy to necessitate a quick response. As we shall see in the next example, the Agenda-leader also makes hierarchical positions relevant in order to reject a request or solve a conflict:

(17)

Hi Eva! thanks for your response, but in my opinion too comprehensive. Abuse is <u>one letter</u> that needs a better tone of voice. As you saw in the previous mail, this is a letter that is sent from Internet, NOT a confirmation letter. Arvid wishes to prioritize this on behalf of TCM because we have increased bad will in this case. (c.f. VG-article last week.)	Hei Eva! takk for respons, men etter min mening noe omfattende. Abuse er <u>ett brev</u> som trenger en noe bedre ordlyd. Som du så i forrige mail er dette et brev som går ut fra Internett og IKKE et bekreftelsesbrev. Arvid ønsker å prioritere dette høyt på vegne av TCM da vi har høy badwill på dette området. (ref VG artikkel i forrige uke.)
[...]	[…]
Thanks in advance for your help on behalf of the abuse-group in Internet.	På forhånd takk for hjelpen på vegne av abusegruppen i Internett.
rgds Line	mvh Line

In a previous mail, Line was criticized by a colleague in another department, Eva Engseth. Eva Engseth complained to Line that she has assigned new tasks to text designer Maria Monsen without consulting her (as MM’s leader) and presenting information about the activity. Moreover, Engseth performs a whole range of requests to Line Myhre. In (17) Line Myhre *rejects* Eva Engseth’s requests indirectly, firstly by producing a dispreffered response (thanks for your response, but […]), secondly by giving an account (Abuse is <u>one letter</u> that needs a better tone of voice) and finally by a change in footing (Goffman 1981), quoting the information director, Arvid Lervik’s point of view (‘Arvid wishes to prioritize this’) and Telecom’s interests (‘on behalf of Telecom’). Rejecting complaints and denying complying with requests are FTAs. In (17) Line Myhre performs her rejection to Eva Engseth on record, directly, and with very little politeness work. By underscoring words (ett brev/one letter) and even using capital letters (NOT), she emphasizes the propositional content and signals strong emotional involvement and authority. By continuing to ground her rejection in Arvid Lervik's role as superordinate, and even copying him in, she shows that she has Lervik on her side. This strengthens her authority and makes it difficult for Engseth to reject the decision.

5.5 Discussion

5.5.1 Summary

The analysis of the Agenda-leader's communicative actions showed that she uses different discursive devices in in-group and out-group communication. When writing messages to the Agenda-group, she mostly uses an informal style and does not make explicit relevant leadership categorizations. Requests are performed with positive politeness strategies (closeness strategies and indirect strategies), signaling a socio-emotional, personal relationship with her subordinates. In contrast, when writing messages to out-group partners, the leader uses a more formal style and makes hierarchical categories relevant. Requests are performed with direct strategies, grounded in her position as a leader or with reference to her superordinate's wishes.

The Agenda leader predominantly uses a rhetoric which creates a positive and attractive image of the group. The analysis identified three devices which contribute to building up the group's image. First, by using addressing devices and positive loaded nick-names she compliments (and categorizes) the members and invites them to identify with the picture/category she presents. Second, the leader makes use of metaphors as narrating devices. Metaphors such as "blessing journey" and "blessing round" contribute to creating a picture of the team as main characters in a success-story. In addition, by using metaphors from economics (to sell in Agenda) the leader compares Agenda with a valuable product. Finally, the Agenda leader provides feedback to the group by informing that they have attention from the top-leaders. To have the top-leaders' attention may signal that the group's work really is making a difference in the huge company. Providing this information may be a performance management device (Bell & Kozlowski 2002) which might serve to strengthen relations inside the team. In sum, the rhetorical devices which the Agenda-leader uses in her in-group communication contribute to creating a positive image of the group. She presents the group as being enthusiastic about their work and as being valuable for the company, something which may promote group identification, establish involvement, trust and maybe increased participation.

Despite all the members of this distributed group belonging to different departments, and in addition other distributed work groups in the company as well, it seems that the leader manages to create an image of Agenda as a unique group. It may even be associated with what Bell and Kozlowski refer to as “a third culture” (Bell & Kozlowski 2002:37). However, to confirm this, the group’s actual perceptions of being members of the group need to be examined through interviews. This has not been the purpose in the current study. A great part of the leader’s messages to the group are requests. When she performs requests, she does not explicitly make her role as the leader explicitly relevant. Rather, she compensates for the request by using positive politeness strategies. This corresponds with Mullany (2004) and the findings in the “Language in the Workplace project” (Holmes & Marra 2004, Mullany 2004, Vine 2004). By using closeness strategies, the Agenda-leader presupposes common ground and familiarity, something which makes her appear as an egalitarian leader who trusts her team members and encourages them to act independently.

Despite the fact that the leader of Agenda by linguistic form appears as egalitarian and present in in-group communication, she constitutes herself more as an authority towards external co-workers. When writing messages to out-group partners, she tends to use a more formal style. When performing requests, she uses more direct strategies and grounds the requesting acts in her position as a leader, or refers to superordinates. By referring to hierarchical roles, she is making power categories overtly relevant. This may be an effective device to pursue quick compliance to a request. Second, the Agenda-leader makes hierarchical categories explicitly relevant when managing conflicts.

This study has primarily shown that the Agenda-leader does not make hierarchical categories relevant when writing messages to the team-members. Her authority is downplayed, or back grounded, in favor of an emotional, personal relationship with her employees. These findings illustrate Fairhurst’s point that hierarchy categorizations often are unspoken (Fairhurst 2007). The Agenda-leader Line Myhre does not need to explicitly qualify herself as a leader each time she posts a request. Her appointed role as the leader of Agenda gives her an exclusive right to perform requests and the members are obliged to comply. In addition, the institutional role is enacted implicitly by the rhetorical devices identified in this study. Her leadership role is constituted by and through the actions which she performs. Evaluating, motivating and requesting are leadership actions (Vine 2004). When Line Myhre posts messages to out-group co-workers, she does not have the same exclusive right, or can not take for granted that the recipients will comply with her requests, since she is not their leader. Therefore, the requests need to be grounded in her institutional role, or anchored in her superordinate's wish.

5.5.2 Doing leadership is building trust

The leadership carried out in Agenda seems to a great extent to be grounded on trust. In the present article, this has been exemplified by the addressing devices, the nick names, and the leader's use of positive politeness when performing requests.

A characteristic of virtual teams and computer-mediated networks is that "boundaries are permeable, interactions are with diverse others, connections switch between multiple networks, and hierarchies can be flattering and recursive (…). The community exists more in the informal networks than predefined work-groups. Rather than fitting into the same group as those around them, each person has his/her own "personal community". Wellman (2001:10) refers to this phenomenon as "networked individualism". A risk with the networked individualism is that the social life at the workplace may be fragmented, and that no one fully knows each other:

> Where person-to person community is individualizing, role-to-role community deconstructs a holistic individual identity. A person becomes only the sum of her roles, and there is the danger of alienation. The compartmentalization of personal life – within the household and within the community – may create an insecure milieu where no one fully knows anyone (Wellman 2001:17).

The leadership practices carried out in Agenda, which is grounded on trust, may demonstrate an attempt to reduce these risks.

As mentioned in the review, one of the challenges for leaders of virtual teams is to duplicate the two key functional leader roles to the virtual team (team development and performance management) According to Bell & Kozlowski (2002) this includes the leader's need to "closely monitor any changes in environmental conditions." Additionally it includes motivating team members to "commit strongly to the overall team effort and need to facilitate team coherence, especially under high intensity conditions." In virtual teams, as in Agenda where people only rarely meet face-to-face, these functions are challenged. However, the leader seems to attempt to create a positive climate in the group, both by rhetorical devices, such as giving the group a nick-name, and by providing receipts and acknowledgements in minimal responses. These characteristics belong to the team-development function (Bell & Kozlowski 2002). In addition, arranging regular face to face meetings belongs to the performance management function. Conclusively, the leader seems to duplicate both of the important leader functions.

Computer-mediated communication provides great opportunity for leaders to send out important information, request and monitor their members. Even though the team-members are physically distant, the technology facilitates constraint-free communication and “hyperconnectivity,” i.e. “the availability for people to communicate anywhere and anytime” (Quan-Haase & Wellman 2006:285). Email may foster social presence to a greater extent than face-to-face, in the sense that email messages are persistent and thus have more pervasive force. This makes it possible for leaders to appear powerful, even at a distance. Interestingly, with respect to the number of messages, the reminders and extent of feedback (Skovholt forthcoming), the Agenda leader appears as a powerful leader, displaying her hierarchical position in the group. Simultaneously, her methods of creating in-group solidarity and performing requests, shows that her institutional role is backgrounded as she enacts egalitarian leadership building socio-emotional ties within the team.

CHAPTER 6

Responses and Non-Responses in Workplace Emails

6.1 Introduction

Email has become the central communication tool for most office workers. It is the medium where people carry out their daily professional activities and where workers and business partners build and maintain professional and interpersonal relations. This article examines the implicit norms of giving responses in Workplace emails. More specifically, it investigates how employees in a distributed work group produce email responses, with reference to what is known about giving response in oral conversations. It investigates to which communicative acts participants produce responses, to which communicative acts they may omit to respond and to what extent they produce acknowledging receipts.

The current study is inspired by pragmatics and Conversation Analysis (CA). One of the main objectives in CA is to identify how participants in face-to-face conversation accomplish social order by orienting to norms. It has previously been shown that participants trade on mundane expectancies when communicating via new technologies (Garcia and Jacobs 1998, 1999, Orlikowski & Yates 1994). Likewise, I expect that conversational norms constitute a major source for the establishment of new norms in a medium that is still in the shaping.

6.2 Email responses vs. face-to-face responses

Although email is a written medium, it has certain features that make it comparable to oral conversation[27]. First, email is interactive. The speed and ease of delivery makes it possible to exchange messages with just a small time lapse. Second, email messages may involve continued interchanges, or threads of messages, organized in turns and sequences. However, the difference between email and face- to-face conversation is that the participants do not share a common temporal and physical context, i.e. while face-to-face conversation is synchronous by nature, email interaction is asynchronous. Furthermore, the technology of email facilitates multiparty interaction at distance by copying, forwarding and attaching messages to multiple recipients. By means of its interactive character, email may profitably be described with reference to the principles of oral conversation, such as Conversation Analysis (CA).

Within the tradition of CA, Sacks, Schegloff and Jefferson (1974) observed some basic rules for turn-taking in conversation. First, Conversational turns transfer so as to minimize gaps and overlaps. Second, non-responses, or silence, in conversation may signal a forthcoming disagreement or some sort of problem (Pomerantz 1984, Sacks 1987). It is considered an accountable action (Sacks 1992:4) and an event which may lead the co-participants to form a set of inferences about the problem source (Schegloff 1972:76).

The temporal aspect constitutes a fundamental difference between email interaction and oral conversation, and thereby changes the meaning of many phenomena in oral turn-taking sequences, such as delayed or absent response. In contrast to face-to-face conversation, the meaning of non-occurring or delayed responses in email interaction, and the inferences that can be drawn, is more ambiguous. The issue in this article is in which circumstances participants in email interaction hold each-other accountable for non-occurring responses, and to what extent one can transfer meanings from specific conversational features in conversation to features in email interaction. Can one, correspondingly with Sacks (1987) and Pomerantz (1984), assume that a delayed email response in a workplace setting marks a dispreferred response? Or are there established other norms of responding in distributed groups, dependent on the institutional roles of the participants involved and the technological constraints and affordances of the medium?

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[27] Previous research on the hybrid nature of CMC-language is presented in Skovholt and Svennevig (2006) and Skovholt (forthcoming).

6.3 Previous research on responsiveness in computer-mediated interaction

6.3.1 Response latencies

How people respond in various forms of computer-mediated communication has been studied in many different contexts, for instance between customers and organizations (Mattila & Mount 2003, Strauss & Hill 2001), between business partners (Pitkin & Burmeister 2002, Tyler & Tang 2003), in discussion groups on Usenet (Jones, Ravid & Rafaeli 2004) and in questions-answers in the "Google Answers" website (Rafaeli, Raban & Ravid 2005). Most of these studies seem to agree that online responses are created within a short period of time. This observation is supported by Kalman, Ravid, Raban & Rafaeli (2006), who measured time latencies in three distinct datasets ("Enron emails", "University forum" and "Google Answers"). Interestingly, they found that the three user groups showed a similar mathematical distribution of response latencies. The average response latency in the Enron dataset was 28.76 hours, in University Forum 23.52 hours and in Google Answers 1.58 hours. Furthermore, at least 80% of the responses were sent within the average response latency of the group (Kalman et al.2006: 8-9).

6.3.2 Turn-taking rules and coherence

The research on CMC, grounded on the tradition of CA, involves several studies on turn-taking procedures and interactional coherence in text-based conversation (Herring 1999, Garcia & Jacobs 1999, Sean Rintel, Mulholland & Pittam 2001, Markman forthcoming, Panayametheekul & Herring 2003). By comparing chat interaction with the turn-taking rules (Sacks et al. 1974) of traditional conversation, these scholars show that common features of chat, for instance, are disrupted turn adjacency (Herring 1999), preference for selecting next speaker by addressing him/her explicitly, rather than self-selecting (Panayametheekul & Herring 2003) and organizing actions through a particular threading strategy (Markman forthcoming). Markman's study also argues that the transition relevance place (TRP), the first place where a speaker can start a new turn, is more nebulous in chat-conversation than in traditional conversation. Of special interest for the current study is Markman's observation that chat posts formulated as questions are more likely to receive responses. Correspondingly, one of my main goals is to examine if speech acts like questions and requests receive responses to a greater extent than purely informative messages.

6.3.3 Response norms

The norms of responding in computer-mediated interaction were first examined by Severinson Eklundh (1986). She investigated the communicative potentials of the computer-based messages system, COM. The underlying assumptions of the study were that a great variety of responses in an exchange "is a sign of the potential interactivity of a medium and a high degree of channel presence" (Severinson Eklundh 1986:48). By identifying the basic structural differences between computer-mediated dialogues and face-to-face dialogue, she found that electronic dialogue consists of an overall two-part structure and lacks a terminating and evaluating third-move (Severinson Eklundh 1986). This makes it relevant to ask whether the same pattern is found in the current data, or whether there might be technological, contextual or even historical changes.

A recurring question in previous research is the significance of delayed or absent replies to messages. A study which explicitly addresses this issue, although in SMS-interaction, is Laursen (2005). Interestingly, Laursen (2005) identifies a strong obligation to reply quickly to text-messages among Danish adolescents. Drawing on CA, her study reveals that both requesting- and non-requesting text-messages receive a response, and un-answered messages are treated as deviant cases. An unanswered message is interpreted as rudeness, and the recipients are held accountable by being sent reminders (Laursen 2005:1). Despite the different interactional settings in the current study, a comparison with Laursen's result is highly relevant. To what extent are employees obliged to reply to emails, and do they hold each other accountable for missing replies? However, in the current study it must be taken into account that the institutional context makes relevant other norms of interaction. The main function of young people's SMS interaction is to maintain interpersonal relations. In a Workplace setting, the organization's need and the participant's institutional roles are in the foreground. The interactional norms operate according to certain rights and obligations in relationship with these roles (Drew & Heritage 1992).

Another study that explicitly applies CA concepts to the issue of delayed or absent response, is Baym (1996). By drawing on Pomerantz' (1984) study on agreements and disagreements in conversation, she identifies structural features of agreeing and disagreeing messages in a newsgroup at Usenet, called rec.arts.tv.soaps (r.a.t.s.). Baym (1996) emphasizes that our verbal behaviors are shaped by media possibilities and constraints and, moreover, that the ways in which language activities are constructed reflect the contexts in which the discourse is embedded (Baym1996:343). Therefore, delays in the discussion group's interaction are merely "responses to the asynchronous written medium" rather than a signal of a dispreferred response (Baym 1996:343). Implicitly, Baym (1996) suggests that electronic interaction establishes other expectations and consequently requires other norms than the oral medium does. Consequently, one cannot assume that the meaning of specific properties of conversation will be transferred directly to CMC (Baym 1996:319).

6.3.4 Response norms in workplace emails

Only a few studies address the norms of responding to organizational emails: Kankaanranta (2005a, 2005b), Murray (1991), Condon & Cech (1996), Taylor and Tang (2003). Kankaanranta (2005a, 2005b) collected 282 email messages from eight employees in Stora Enso Company. She identifies three overall email genres in her corpus of company-internal email, namely the *noticeboard*, *postman* and *dialogue* genres: "The Dialogue genre is used to exchange information about corporate activities, the Postman genre to deliver other documents for information and/or comment, and the Noticeboard genre to inform employees about workplace issues." (Kankaanranta 2005a:45f., 2005b:207). Most interesting for the current study is that the different genres were identified on the basis of the type of responses they received, i.e. if the message triggered a response or not. The Noticeboard messages did not typically trigger a verbal response, whereas the Postman messages did not request a specific response, or they invited comments, and therefore displayed an expectation of a verbal response (Kankaanranta 2005b:208).

While Kankaanranta relates the issue of absent response to a specific email genre (The Noticeboard-genre), Condon & Cech (1996) implicitly relate the issue of missing responses to a prototypical decision-routine which provides a basic structure for the interaction in both oral and computer-mediated modalities (Condon & Cech 1996:8, 12). The general decision routine provides a structure of shared understanding and expectations which allows participants to reach consensus without providing a responding move. According to Condon and Cech (1996:19):

> (…) routines are useful because they make it possible to communicate effectively by reducing the amount of linguistic encoding necessary to express discourse functions (…) This reduction is accomplished by relying on a shared understanding such as discourse routines and, especially, the understanding that functions anticipated in routines do not need to be made explicit in the language. Since agreement is expected following a suggestion, it is often reduced to a minimal encoding, such as 'OK', 'yeah' or 'cool'. In contrast, a disagreement would require some additional linguistic form to signal the dispreferred function. Consequently, an absence of any linguistic form at all should signal agreement.

In the quote above, Condon and Cech seem to assert that an absent response might signal agreement. A similar point is made by Murray (1991), who interprets a delayed response in a decision routine as an implicit promise. A promise to comply with a request is often “unmarked” (Murray 1991:110), i.e. without linguistic signals. “Often the time delay between the original request and the response is hours or even days. The requestor does not consider this rude or unusual, but interprets the silence as a promise to try to fulfill the request” (Murray 1991:110). Interesting observations have also been made by Taylor & Tang (2003), who interviewed employees about their perceptions of how they responded to emails and how they formed expectations of their co-participants’ response to them. They found that email rhythms are much more based on relationships than on isolated messages. Furthermore, participants converge to the email behaviors of others and mostly favor quick responses, for instance by sending short messages which state when they intend to provide a full reply.

With regard to how participants in CMC deal with non-responses, Sean Rintel et al. (2003) investigated ambiguous non-responses on Internet Relay Chat (IRC). They found that participants, when dealing with non-responses, try the easier solution first. They reconnected and re-greeted, before they assumed there was an interpersonal problem. Despite different medium and setting, can these strategies be found in workplace emails as well?

In sum, Condon & Cech (1996), Murray (1991), Taylor & Tang (2003) and Sean Rintel et al. (2003) seem to agree that absent or delayed response might have other meanings in CMC than in oral conversation. Inspired by their research, I ask whether a missing response to a request in institutional settings corresponds to an implicit response norm. And, in this case, does the absent response signal agreement? Do participants’ tacit expectations about institutional routines allow them to not respond or give acknowledging receipts in certain cases?

There seems to be an agreement in some of the previous CMC studies that delayed or even absent responses to emails are in some circumstances in accordance with participants' norms of behavior. Some authors seem to relate this to genre, others to routines. In interaction studies it has been shown that different types of activities and settings make relevant different norms and speech exchange systems (Drew & Heritage 1992, Arminen 2005). I expect this is the case in CMC as well. It is not necessarily the mediating channel which actualizes the norms of talk. Rather, it is the different activities and speaker roles involved.

However, none of the reviewed studies examines how participants actually respond to email messages or show how missing responses are treated in a distributed work group. Therefore, there seems to be a need for a systematic analysis of email interaction with the aim of explicitly accounting for the interactional norms. The research questions for the current study are:

1. What are the implicit norms of giving response to email questions and requests?
    a) How and when do participants respond to email requests?
    b) How do participants attend to absent or delayed responses?

2. What are the implicit norms of giving response to non-requesting emails?
    a) What kinds of communicative acts are responded to?
    b) What kinds of communicative acts are not responded to?

6.4 Data and methodology

6.4.1 Data

The data analyzed in this study are emails from members of a distributed project group called "Agenda" in a Norwegian telecompany, "Telecom" (TCM)[28]. The email exchanges were gathered from August 2004 to December 2004 and amount to 491 emails. The messages were collected with assistance from the Agenda members who, during the period, continually forwarded their exchanges to the researcher[29].

[28] All names of companies and employees have been replaced by pseudonyms.

[29] Depending on the employees to forward their emails is a possible error source for the study of responses in that certain short acknowledging messages may have been deemed unimportant and thus not forwarded, or they may have simply been forgotten. In cases where I had doubts whether all messages in a thread had been forwarded, I contacted certain members with a request to check their inboxes.

Agenda’s main task is to edit all confirmation letters that are distributed to customers in the private market. The members formulate, revise and standardize letters and templates, with the purpose of giving all letters a uniform style that communicates in a clear and polite way to the customers. They are frequently contacted by various divisions in the company with requests to reformulate their letters. In order to give the letters a unified tone of voice, they follow a set of guidelines concerning orthography, sentence structure and style.

The project group consists of twelve members, each representing a team from the different divisions of the company; *Telephony*: Birgitte Hansen, *ADSL*: Siri Vogt, *Dial-up*: Elisabeth Eide, *Mobile:* Jon Olavsen, *Customer Service*: Per Olsen, *Credit:* Lise Larsen and *Invoice*: Janne Eia. In addition, Agenda includes *text designer* Maria Monsen, *system operator* Geir Johnsen and an observer and *system operator* from another division, Are Strand. The manager of the project group is Line Myhre, and she in turn reports to Arvid Lervik, the Information Director of TCM Private.

The senders and recipients of the messages are primarily Agenda-members. Most of them are physically located in different departments and even in different parts of Norway. They have occasional meetings at the main office, but most of their communication is carried out by email and telephone. The members usually interact in dyads, sometimes with selected co-members copied in, and seldom address the group as a whole. Some members are more active than others, for instance text designer Maria Monsen, manager Line Myhre and the system operators Geir Johnsen and Are Strand. Yet all of the members are represented in the data. The members also interact with external collaborators within and outside of TCM, such as employees at the printing center “Strålfors” and members of Agenda Business. In addition to the email collection, extensive ethnographic and interview data were collected in order to contextualize the communicative practices. The emails were originally written in Norwegian, but are translated into English by the author. The translations are idiomatic, rather than word-by-word, in order to keep the style as authentic as possible.

6.4.2 Methodology

The study applies the methodology of Conversation Analysis, implying that the object of study is the participants’ own procedures and norms for interaction, and that the approach used to grasp them is sequential analysis, basing claims about individual utterances on the interpretations made by the co-participants as displayed in their subsequent responses. The study also applies terms from Speech Act Analysis (Searle 1969).

Studying response-giving involves distinguishing between turns (messages) that make a response conditionally relevant and those that do not. Certain types of utterances create the expectation of a specific type of response and thus constitute a first pair part of an adjacency pair. Sacks and Schegloff's notion of “conditional relevance” and “accountability” provide a useful resource in order to understand the phenomenon:

> When one utterance (A) is conditionally relevant on another (S), then the occurrence of S provides for the relevance of the occurrence of A. If A occurs, it occurs (i. e. is produced and heard) as a “responsive to” S, i.e. in a serial or sequenced relation to it; and if it does not occur, its occurrence is an event, i.e. it is not only non-occurring (…) it is absent, or “officially” or “notably” absent. That it is an event can be seen not only from its “noticeability”, but from its use as legitimate and recognizable grounds for a set of inferences (e. g. about the participant who failed to produce it) (Schegloff 1972:76).

In CA, a conversational norm may become visible in two ways; first, when a conversational feature appears as a structural regularity. Second, a norm is manifested when it is breached – in the so called “deviant cases”:

> Only in cases of breach or anticipated breach may the reflexive features of conduct come to be fleetingly entertained, for on the whole it is in cases of breach that actors may anticipate being held to account for their actions and, as part of this anticipation, contemplate its being held that they could have known and done differently and therefore should have done so (Heritage 1984:118).

In this article we aim to find what sorts of email-messages provide for the relevance of a responding message, and what sorts of response is expected. To do this, we follow the method of searching for structural regularities as well as deviant cases, mainly in the form of accounts and prompts oriented to “noticeably absent” responses.

In the data, messages that elicit a response are primarily directives, such as questions and requests (Searle 1969). Requests for information (for instance questions) explicitly ask for a verbal response. Requests for action (such as task assignments) primarily elicit a non-verbal response, but they also create the expectation of a verbal display of acceptance or rejection (Lindström 1999). Requests for information and action may take several forms, such as the following:

1. Imperatives: ”Please send me some old letters.”
2. Interrogatives: “Do you have his signature?” (Conveying “send it to me!”)
3. Declaratives with a question mark (statements about B-events): “You're coming on Thursday?”

As Schegloff (1984) and Clayman and Heritage (2002) have pointed out, there is no one-to-one correspondence between an utterance’s grammatical form and the speech-act it accomplishes. Declaratives can function as questions and interrogatives can accomplish non-questioning actions. Whether an utterance constitutes a question or not is a matter of sequential context.

An additional feature of the context that is of special relevance here is the institutional activities and identities involved. Certain routinized patterns of action will influence the interpretation of individual utterances (cf. Condon and Cech 1996, cited above). The fact that the manager routinely assigns tasks to the project group members will make her messages more prone to being understood as requests than messages from other members. For instance, a task may be assigned by the mere mentioning of the type of work involved: “Textwork. Deadline is 17 Sept.” This implicit formulation of the request presupposes a common understanding of the institutional context, including different communicative rights and obligations related to their respective professional roles.

This implies that we need to look beyond the linguistic form and the sequential context too see whether there are organizational structures and procedures that contribute to determining the function of a certain type of utterance.

In this study, every email in the data corpus was transferred into an excel-document, given an id-number and categorized as a requesting or a non-requesting message. The directive messages were divided into request for action and request for information. Furthermore, each email was coded with respect to responses, non-responses, response latencies, reminders, accounts and receipts. Then, a qualitative analysis of the response messages sought to identify a response pattern with respect to the normative expectations of the interactants, depending on the form of the message, its sequential position, the institutional activity involved and their institutional roles.

6.5 Responses in Workplace emails

The quantitative work resulted in two major findings. First, 47% (230) of the total amount of messages did not receive a response. Surprisingly, 34% (101) of the requesting messages did not receive a response. 65% (129) of the non-requesting messages did not receive response. Second, the average response latency is 28.01 hours. The quantitative results are listed in Table (15), below.

		Receive response	**Do not receive Response**
Sum emails	**491**	261	230
Requesting messages	**294**	**193**	**101**
Request for action	202	118	84
Request for information	92	75	17
Non-requesting messages	**197**	**68**	**129**
Reminders	16		
Accounts	8		
Receipts	20		
Placeholders	4		
Average response latency	28.01 h		

Table 15. Quantitative results

The qualitative analysis resulted in two general findings. First, the most common types of exchanges are question/answer-sequences and request for action/compliance-sequences, or even request for action followed by no response or a placeholder. Second, absent responses to questions and requests are followed by reminders from the senders or accounts by the recipients, something which may indicate that absent responses are treated as noticeably absent. In what follows, I present the norms I have identified more in detail and account for the findings by means of examples from the data sampling.

6.5.1 A response is conditionally relevant after questions and requests

The data indicate that questions and requests provide for the relevance of a response in email interaction, just as in conversation. I found two types of evidence for this norm. First (and not surprisingly), the data shows that the exchange of questions/requests and responses establishes a regular pattern of interaction. The second type of evidence occurs in deviant cases, i.e. when absent responses are treated as noticeably absent.

The recipients seem to orient to two different practices. First, they choose to reply with what we consider as a *placeholder*, i.e. an email, produced within a short time lapse, which acknowledges that a message is received and then estimates when the sender intends to produce the full response. Second, they postpone the response until the requested task is carried out. In what follows, we will see an example of a placeholder message.

The system operator (GJ) post a request for information to the text-designer (MM): "I was informed by Arvid that the Director CS is Eirik Heiberg. Have you got his signature? Or shall we still give the case to Per? Regards Geir Johnsen". GJ's request (Have you got his signature?) is realizing both a question (Have you got his signature?) and a request (Send me the signature, please). Eight hours later, MM replies: "I have got it! I'll send it Monday morning (Sent it to John while I sent the two others to Line). Maria". In her message, MM orients firstly to the question (I have got it), second to the request (I'll send it Monday morning). Three days later, Maria finally sends the signature to GJ, by linking her message to GJ's original message: "Here's Heiberg's signature. :) Maria."

By linking the second reply to GJ's initiating message, MM establishes sequential coherence and an adjacent relationship between GJ's request and her accomplishment of it. This reply does not produce a second pair part. Rather it functions as a placeholder which estimates a projected answer. By producing the placeholder she displays orientation to two aspects; the need to respond, and the obligation to comply with the request. It seems as if MM reads GJ's initial message ([…] "or shall we still give the case to Per?") as implying doubt or even criticism, and produces a quick response to show her willingness to comply with the request and at the same time account for a delay in this action.

The alternative to producing placeholders is to postpone the response until the requested task is carried out. A group leader from another department (HF) sends text designer MM the following request: "Hi! Textwork. Deadline is 17 Sept." The text to be improved is attached to the message. HF's utterance "Text work" is a request addressed to

MM. It refers to a forwarded and appended message from SV which explicitly requests MM to revise a letter. Two weeks later, MM gives her response directly to SV, copying in HF, accomplishing the task by attaching the approved letter: "Here it is. :) Maria."

The interaction between HF and MM has a minimal transactional character. The elliptical form of the request ("Textwork") lacks a verb indicating what action MM is supposed to take. In addition, there are no politeness strategies involved, modifying the strength of the request. Immanent in MM's role as a text designer lies the obligation to improve the company's letters and an obligation to comply with the requests. MM's response and compliance with the request shows acceptance. This minimal transaction shows a highly routinized character. Additionally, SV does not hold MM accountable for the delayed response, for instance by producing a reminder. In this case, the mentioning of a deadline may also provide for the legitimacy of not responding until the date indicated.

The second type of evidence to the response norm occurs in deviant cases. When questions and requests are not followed by a response, the Agenda members treat the missing response as noticeably absent. The participants orient to missing responses in two ways. As we will see in what follows, the senders post a *reminder* to the recipients, whereas the recipients on their side produce an *account* in their delayed reply. In one email BH requests MM to edit some texts: "Enclosed you'll find a link to the letters for differentiated subscription. The release date for the new subscriptions is Nov. 8th. You should edit them in order to improve the language." This directive is formulated with deontic modality and strongly commits MM to the requested action ("You <u>should</u> edit them in order to improve the language"/"Du må gå igjennom for språklig forbedring"). One week later, without receiving any response from MM, BH appends her original message to the following reminder: "Hi Maria! What's the status here? If you want I can sit down with you and we can look at it together. Regards Birgitte:-)"

By referring to the appended message, BH indirectly re-actualizes her request, reminding MM that she has not yet complied with the request. The question seems to make relevant an account for not accomplishing the task. Additionally, the offer of sitting down with MM can be interpreted as a way of dealing with a problem. It implies that the task has not been completed and that the recipient may be having trouble with it. In sum, by sending MM a reminder BH treats MM's absent response as reportable. BH holds MM accountable for the missing reply, and the appended mail functions as evidence for the missing response. 20 minutes later, MM responds with the following message: "I have moved my Tuesday-Agenda-day until tomorrow […] so I am going to look at this tomorrow. […]. I hope that's all right – because I'm soooo stressed this week, […]. I had a sick child-Thursday last week, and when he recovered Friday, I discovered that he had got lice – and then I spent the day eradicating them. That's why I haven't looked at this yet. Regards Maria."

Above, MM produces a narrative account that explains why she has not complied with BH's request. This lengthy account displays an orientation to the normative expectation of complying with requests without delay, or alternatively sending a placeholder response.

To sum up, email resembles conversation in that requests provide for the conditional relevance of a response in the form of a granting or rejection. In the case of questions, there seems to be a tolerance for delay ranging up to some days. In requests for action, the tolerance for delay seems greater, especially if the requested action is extensive. This might be supported by the quantitative results, which show that 18% (17) of the requests for information lack response, while 40% (84) of the requests for action lack response. However, a practice has developed for preempting negative inferences from missing responses, namely placeholder messages signaling compliance and committing to a future granting of the request. This seems to be a practice that has developed in order to deal with expectations based on the meaning of silence that are transferred from conversation to the email medium. More important, the strong orientation to the norm of complying with requests in a Workplace setting as in this study must be seen in light of the participants' institutional roles. MM's role as text designer allows, on the one hand, her colleagues to give her requests and, on the other hand, it obliges her to comply with the request.

6.5.2 Invitations of comments and corrections

Invitations to correct or comment on what is proposed in a message establish one class of systematic exceptions to the norm of conditional relevance of answers. In these cases, the original message performs two actions simultaneously: it presents information or makes some proposal, and furthermore asks the recipients to comment on it. In these cases, the norm seems to be that addressees should respond if they have suggestions to make, and if not, they need not respond. In these cases, then, silence means acceptance.

In one message, the system responsible (AS) informs the Agenda-group that their photo (which was taken during the previous meeting) is published on their homepage: "Hi everybody, now the picture is published on the Agenda page. I hope I chose the right picture of the 3 I received from Line. Should I make any changes? Are."

In the example above, AS performs three separate speech acts. First, he *informs* that the photo has been published and then he indirectly *requests* LM to confirm that he has published the right photo. Finally he interrogatively *requests* the Agenda members to report if he should make changes. Interestingly, no one responds to this request. The fact that the message includes multiple speech acts makes it possible for the recipients to ignore the request and merely attend to the informing part. The request invites suggestions for changes, and provides the possibility of not responding if one does not have a suggestion to make. In such cases, then, no response seems to be acceptable after a request and carries the meaning that one has nothing to report.

In the next example AS responds to a message from MM where she sent him an attached file and (indirectly) requested him to publish it on their homepage: "To our pages on the intranet. :) Maria." One hour later AS responds to MM, adding the Agenda leader LM to the address field: "Is this okay on [reference to website]? Regards Are."

AS's message above primarily informs MM and LM that the new letter template has been published. However, his utterance is interrogatively designed as a request for approval by MM and LM. As in his previous message, he gets no response, and seems to treat the silence as approval. The participants seem to adhere to a norm which allows them to remain silent if they approve a proposal, and respond only if they disapprove or have corrections to make.

Our main explanation for this pattern of non-response is thus the multifunctionality of the initiating message, i.e. informing and inviting comments simultaneously. However, it also seems to be a pattern that is more common in mails sent to multiple recipients than in messages to individuals. Addressing a larger group seems to contribute to making it less relevant for the recipients to reply unless one has a substantial contribution to make.

6.5.3 Receipts and acknowledgements

Non-requesting email messages do not require a response, but they are nonetheless frequently responded to. 35% (68) of the non-requesting messages receive a response. In our materials, non-requesting messages are involved in actions such as sending attachments (primarily edited letters) or merely informing about institutional activities. Strikingly, 20 non-requesting messages receive acknowledging receipts in second or third position. In the ones that occur, the time-lapses are short and the messages typically show other signs of social presence associated with oral interaction (cf. Grønning 2006).

My analysis shows that responses to informing messages are not normatively expectable but rather volunteered. In the following message, the Agenda leader (LM) informs her group of an article in Telecom's news bulletin where the Information Director BK underscores the importance of Agenda's work. In addition, she congratulates her group with their good work: "Hi all participants in Agenda! Read the info from Bente this month and read it thoroughly because we in Agenda are mentioned!!! Congratulations with the good work and keep it up; we have attention from the top. rgds Line."

In traditional face-to-face conversation, compliments are followed by receipts of various sorts (Pomerantz 1978). However, no one responds to LM's email above. Contextual factors such as the number of addressees may also explain the missing response. In the materials, other instances of informing messages to multiple recipients show a similar pattern of absent response. On the 28th of October 2004 at 09:40 hours, LM informs the Information Director AL of the progress of an issue by writing an FYI (For Your Information) and appending an email thread: "FYI, Geir will follow this up further! rgds Line." FYI-messages constitute a main category of informing messages. Another category is messages that are sent to in-copied recipients (Skovholt & Svennevig 2006). Only 35% (68) of the purely informing messages receive responses, and the lack of response is not treated as problematic or deviant, i.e. followed by reminders or accounts. From this observation, we conclude that informing messages do not require a response.

However, our data shows that in certain circumstances non-requesting messages *do* receive responses. This concerns, for instance, when recipients link a new message to a previous mail (as a means of inserting the recipient's address in the address field) when they produce acknowledging receipts and repairs. A reply-message is not always only a response to the previous one. Rather, the sender may use the reply-function to initiate a new and unrelated message. AS posts a purely informative message to his leader LM: "Copy to you Line." Four days later, LM replies with a copy to the Information Manager: Thanks for your info, Are. Nice to know how AGB is organized. The picture of AGP is coming, I'm going to send them over this evening. rgds Line."

Here LM performs two actions. She thanks AS for the information he provided, and she informs (or promises) him that she is going to send over some pictures of Agenda, which he, as system-responsible, is responsible for publishing on Agenda's homepage. These actions are not internally coherent but relate to two unrelated institutional activities. The message is sent 4 days after the initial message, by means of the reply function in the mail program. This means that the heading is inherited from the previous exchange and is not relevant to the issue of informing about the status of the picture. The thanking may thus be a way of linking back to the heading and to their previous history of interaction rather than being a relevant action in itself.

Although informing messages do not require a response, they may be treated as actions that make a specific type of response relevant. By thanking AS, LM treats the prior message as an offer of a service and thus makes it response-worthy.

Non-requesting messages are also responded to by appraisals and supportive statements. Typical instances are supportive responses from leaders. In the next example AS replies to a message from one of the employees in Customer Services, concerning a customer complaint. The request for help was originally addressed to LM, but since she was not available the day in question, it was forwarded to Agenda's mailbox and managed by AS. AS copies in LM in his reply: “Hi! We in Telecom have no control of how another sales department has treated this transaction! Unfortunately it will most likely be difficult to have full control of how other sales departments treat transactions. We in Telecom have clear routines for how the letters from the customer are to be treated. See presentation.” Three days later, LM responds to AS: Great support Are, you are very organized and a great reply to Erik! rgds Line.” In contrast to her previous message to AS above (“thanks for the info”), LM does not elaborate on AS's message or introduce any new activity. Rather, it is a purely responsive message providing positive evaluation and acknowledgement. This is also a volunteered response, occasioned but not made conditionally relevant by the previous message.

In the data it is typically superordinates who give acknowledging and supportive receipts to non-requesting messages. In one message LM informs AL of the halt in progression in Agenda: “Hi Arvid! Refer to mail below concerning new participant from Dial-up. In addition I want to inform you that I was a little bit strict at the prior Agenda meeting in cases where I don't think the work has any progress. The templates were not finished – I'll contact you for a chat. rgds Line.” 21 minutes later, AL responds: Ok. Progress is especially important here! Arvid.”

AL first acknowledges receipt of LM's message (“Ok”) and then goes on to signal support to LM's line of action. The use of an intensifier (“especially”) and an exclamation mark reinforce his display of agreement. Again, the primary role of this response is to acknowledge the information and align with LM’s position. This type of evaluating responses from managers enacts the institutional role of a person with the right and obligation to evaluate the performance of his/her employees.

Participants also respond to non-requesting messages to check their understanding of or make corrections to the previous mail. Text designer MM receives a copy of LM's mail to EE: “Welcome to AgendaPrivate, Elisabeth. I'll invite you to a new meeting with only the two of us, to brief you about your work :-) rgds Line.” Fifteen minutes later MM responds: “Since you’re sending me a copy – is Elisabeth going to work with text? I have heard that she is working with Internet today. Hope you have had a nice week-end! :) Maria.” In the original message, MM is a secondary recipient (Skovholt & Svennevig 2006) and is not addressed explicitly in the address heading. In her response to LM, MM shows that the very fact that she has been copied in gives rise to inferences about relevance, in this case the hypothesis that EE will be working with text, like herself. MM's question serves to initiate repair, i.e. to check her understanding of LM's message.

In sum, we found that participants hold each other accountable for non-responses to questions and requests. However, for a certain class of messages that are primarily informative, and only secondarily requestive, a response is only conditionally relevant if the recipients have corrections or comments to make. Also, we found that responses to non-requesting messages are not conditionally relevant, but are occasionally volunteered as more interpersonally oriented responses, i.e. to provide positive evaluations, appraisal and support.

6.6 The function of non-responses in email interaction

In email interaction, a missing response can potentially be due to several types of trouble sources. It can be caused by a technical problem, or by a content problem, for instance if the recipients have problems understanding the message. Furthermore, the trouble source can be found in the time and space restrictions of email. As Tyler & Tang (2003) observed, senders often perceive an absent response as if the recipient is overwhelmed by email. The trouble source could also be considered a relational problem, for instance that the sender is not important enough to be worthy an answer.

The inferences that senders actually draw from an absent response are not possible to analyze empirically by text analysis. However, we may describe the ways participants display their perceptions of the missing response through their subsequent actions, e.g. how sender and receiver collaboratively construe and identify the trouble source in reminders and accounts. Which trouble sources do they address and what kind of accounts are provided?

The reminders sometimes provide a potential explanation for the problem and present it as something beyond the recipient's control (MM to LH: “I hope you enjoy the summer, and – if you are not on holiday – that you as quickly as possible can conjure up a reply to the mail below. I guess that it has drowned in your holiday mail”). They are construed as less intrusive (G J to AL: “I wonder if you could find the signatures”) and may be based on the assumption that the recipient has already provided the requested information, or carried out the work (JE to BS: “Was there a solution to this?”). Interestingly, the reminders may also construe the problem as rooted in the sender's own insufficiency (AF to GO: “Now I’m really nagging, but […].” LM to KB: “Did you get assistance from Tor on this case? Greetings from she who collects old mails.”)

The accounts from the recipients generally construe the problem as a time-managing problem (MM to LM: “Sorry for this late answer – it is rather hectic these days.” GO to AF: “I will do the check Friday this week, other issues have turned up which made me put this on ice for a while […].” KB to LM: “No, I had forgotten that […].”) The accounts may also be construed as single apologies (LH to MM:”Sorry, I will come back to you by next Monday.”) There are totally 8 instances of accounts in the data corpus.

By treating the trouble sources as systemically occasioned (such as vacation and a hectic work situation), the participants display that an absent or delayed response is not a result of a relational problem. This may indicate that missing responses have other functions in email interaction than in face-to-face interaction. This also supports Pomerantz’s (1984) and Sean Rintel et al.’s (2003) results. The participants try the easier solutions first, i.e. by looking for institutional reasons before they assume there is an interpersonal problem.

6.7 Conclusion

The distribution of responses and non-responses to requests and non-requests showed that 47% of the total number of messages did not receive a response. As much as 34% of the requesting messages did not receive a response. 65% of the non-requesting messages did not receive a response. Another interesting result was that the average response latency was 28.01 hours. Surprisingly, this corresponded with a previous study which found that the average response latency in the Enron email dataset was 28.76 hours. Even though the measurement of average response latency has been the central focus in this study, it seems as if the same power law distribution is present also in the Agenda dataset. This indicates that if a response is not created within 24 (28) hours, the probability for a response seems to drop precipitously.

The qualitative part of study has shown that email resembles conversation in that there is a norm that requests and questions should in general be followed by a response. However, there are situations where a response to a question or request is not necessarily conditionally relevant. This does not correspond with conversational norms and indicates that the participants have developed alternative norms for email interaction. In sum, our analysis identified three general interactional norms:

1. A response is conditionally relevant after questions and requests.
2. Responses to requests for comments and corrections of a proposal are conditionally relevant only when there is something to report. Non-response signals acceptance of the proposal.
3. A response to non-requesting messages is not conditionally relevant, but occurs as acknowledging receipts and repairs.

The first norm involves questions and requests normatively receiving a response. Absent responses are followed by reminders from the requesters or by accounts and excuses from the recipients. In the case of questions, there seems to be a tolerance for delay ranging up to some days. In requests for action, the tolerance for delay seems greater, especially if the requested action is elaborate. In cases where a request cannot be granted immediately, the participants either wait until the task can be carried out, or they send a "placeholder message," i.e. a message that signals compliance and commits to a future granting of the request. The practice sending of placeholder messages is oriented towards preempting negative inferences from absent responses. This practice seems to be developed to deal with the potential negative implications of silence derived from conversational interaction. These findings fit with Taylor & Tang’s (2003) interviews, which revealed that participants often send short responses to state when they intend to provide the full response.

The second norm is constituted by a class of exceptions to the norm of responding to requests. When email messages contain invitations to correct or comment on proposals, they perform two actions simultaneously: they present information to the addressee and simultaneously request comments or corrections to the proposal. In these cases, a response is conditionally relevant only if the recipients disapprove, disagree or have corrections to make. This norm may explain why surprisingly 34% of the requesting messages did not receive a response. Not responding to requests does not correspond with traditional norms of adjacency pairs. However, one may compare this practice with the norms of Workplace-meetings or classroom interaction. In these cases, silence means that one has nothing to report and it is not treated as problematic. Rather, it may convey acceptance and agreement. These results correspond to the findings of Murray (1991) and Condon and Cech (1996).

The third norm we identified shows that that non-requesting email messages, e.g. attachments, FYI-messages and in-copied messages do not require a response. Neither do first pair parts that do not request information or action beyond a simple acknowledgement, such as congratulations and compliments. The lack of response in these instances was not treated as problematic or deviant. This pattern does not correspond with traditional adjacency pair norms in conversation where congratulations and compliments typically receive thanks.

A category of email messages that is typically not followed by a response is informing messages to multiple recipients. This category corresponds to Kankaanranta's (2005a, 2005b) Noticeboard genre, which represents messages that do not trigger a response. Even if purely informing messages do not require a response, the technology makes a response possible so that an informing message may turn into a dialogue.

Non-requesting messages do not make a response conditionally relevant, but are occasionally responded to by minimal acknowledgments and receipts. However, these minimal responses occur far more seldom than in conversation. The main class of minimal responses involves assessments and other forms of "positive evaluations" from super-ordinates. Typically, these messages occur when interaction happens with just a small time lapse or shows other signs of social presence.

The observations above modify the two-part structure of email (COM) dialogue presented by Severinson Eklundh (1986). Whereas Severinson Eklundh's (1986) COM-dialogues reveal a two-part structure and lacked a terminating and evaluating third-move, the current study shows that participants, to a certain extent, produce minimal responses in third position. One explanation could be that the dialogue genre has developed significantly and become more common since email was introduced as a working tool.

In email interaction, participants draw on various contextual cues to interpret an absent or delayed response. In addition to the three response norms, our analysis of reminders and accounts shows that the participants orient to the institutional context and the a-synchronicity of the medium when they follow up on an absent response. Their reminders and accounts construe the problem source as systemic (e.g. recipient is on vacation or overloaded with email) rather interpersonally occasioned (as a sign of disagreement or a potential conflict). The construal of reminders and accounts indicates that missing responses are treated differently and have other functions in email interaction than silence in face-to-face conversation.

Email messages are complex utterances which often include multiple speech acts. Contrasted with face-to-face conversation, the time dimension in email interaction influences the participants' expectations to responses and imposes other premises for how participants coordinate their actions. In email interaction, the traditional adjacency pairs are modified and adapted to fit with the asynchronous context. There is great variation in the patterns of response that are not normatively regulated, such as whether or not to respond to a non-requesting message and when to respond to a requesting message The contextual factors that seem to be most relevant for explaining such variation are the number of addressees and their relative institutional roles. In addition there is great idiosyncratic variation and this is symptomatic of a system of interaction that is not (yet) strongly codified. This variation may be exploited for purposes of signalling interpersonal relations, and high responsiveness may be used to display involvement and intimacy.

Acknowledgements

I would like to thank my supervisor Jan Svennevig for supportive assistance with this article. I would also thank Arja Irmeli Piirainen-Marsh and Susan Herring for helpful comments.

Full reference

Skovholt, K. (Forthcoming). Responses and Non-responses in Workplace Emails. In S. Herring, D. Stein & T. Virtanen (Eds.), *Handbook of the Pragmatics of Computer-Mediated Communication*. Mouton de Gruyter.

CHAPTER 7

Email Copies in Workplace Interaction

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Abstract

This study examines how employees in a distributed work group use email copies in networks of collaboration. It studies the *audience design* of messages with multiple recipients, analyzing explicit and implicit addressing devices used to appoint recipients as primary and secondary participants in the interaction. Copying in recipients serves to share knowledge of ongoing projects and to build up a common information pool. Furthermore, it is used to facilitate multi-party interaction and to build personal identity and alliances. Copies to third parties may also be used for reasons of social control, for instance in order to gain compliance or to put pressure on the addressee to conform to social norms of conduct.

7.1. Introduction

In formal, institutional communication, there has long been a routine of sending paper copies of letters to relevant third parties. With the development of email as a central tool for workplace communication, the practice of sending copies has proliferated. No longer associated with formal correspondence, copying is a common way of including several participants in networks of day-to-day professional communication. This requires new forms of competence in addressing multiple participants with varying participation statuses and amounts of background knowledge. In this article we investigate the use of the copy field in email messages between members of a distributed workgroup. We ask in which situations copying in third parties is done, how the in-copied recipients are accommodated into the message, and what sorts of communicative functions the copy practice serves.

7.2 Previous Research on Email Interaction

The current study falls within the framework of Computer-Mediated Discourse Analysis (CMDA)[30]. In this tradition we find relevant studies of email communication from both linguistic and organizational perspectives. However, none of them address the copy phenomenon explicitly.

Linguistic studies of computer-mediated communication (CMC) often focus on the formal qualities of language used in electronic media. Scholars have attempted to grasp the nature of electronic language by comparing it with oral and written language (Baron 1998, Collot & Belmore 1996, Sims 1996, Yates 1996), by identifying special features of orthography, typography, and grammar in electronic texts (Crystal 2001, Gimenez 2000, Murray 1991) and by identifying structural regularities and gender differences in Internet mailing lists (Herring 1996). Drawing on Biber's (1988) studies of spoken and written texts, Collot & Belmore (1996) and Yates (1996) analyzed spoken, written, and computer-mediated texts with respect to linguistic variables such as vocabulary type/token ratio, lexical density, and use of pronouns and modal auxiliaries. Their results show that electronic language approximates both writing and speech depending on which linguistic variable is measured. For instance, lexical density approaches written style, whereas pronoun use is more in line with spoken style. However, both studies emphasize that CMC is heterogeneous and "affected by the numerous social structural and social situational factors which surround and define the communication taking place" (Yates 1996:46).

Clearly, CMC is not a unitary linguistic system but rather needs to be differentiated according to technological and situational factors (Herring 2001, 2004). Even within the single type of CMC studied here, namely email, there is vast linguistic variation. Baron (1998:162) notes that "email is a communicative modality in flux" and more "a moving linguistic target than a stable system" (1998:144). The existing linguistic studies show the

[30] For an introduction to CMDA and an overview of different approaches, see Herring (2001, 2004).

need for analyzing computer-mediated communication in specific social and cultural settings, as is the aim of the current study.

Some authors do address contextual issues, such as Yates and Orlikowski (1992, 2002), Orlikowski and Yates (1994), Nickerson (1999), Mulholland (1999), and Kankaanranta (2005). These studies approach email as communicative practices linked to communicative purposes and hierarchical roles within a community, e.g., the organization. They investigate the use of language in “typified social actions,” or genres (Bargiela-Chiappini & Nickerson 1999:8). The pioneers in this tradition, Orlikowski and Yates (1994), illustrate how the communicative practices of community members using email are organized through an overall repertoire of four different genres: the memo, proposals, dialogue, and the ballot genre. Interestingly, they found that dialogue, which was a small part of the group’s repertoire in the beginning, became an “increasingly accepted and used genre” during the course of the project they studied (Orlikowki & Yates 1994:564).

Inspired by the studies of Orlikowski and Yates, Kankaanranta (2005a, 2005b) identified three overall email genres, namely the *noticeboard*, *postman*, and *dialogue* genres: “The Dialogue genre is used to exchange information about corporate activities, the Postman genre to deliver other documents for information and/or comment, and the Noticeboard genre to inform employees about workplace issues” (Kankaanranta 2005a:45f.).

It has been shown that when humans attempt to communicate via new technologies, they rely on communicative conventions and practices acquired in other contexts (Hutchby 2001, Orlikowski & Yates 1994). Accordingly, we assume that participants in email interaction import practices, rules, norms, and conventions from conversation as well as traditional written genres. In this sense the study is also an investigation of the emergence of new forms of *literacy*[31]. According to Barton (1994), literacy is “a set of social practices associated with particular symbol systems and their related technologies. To be literate is to be active; it is to be confident within these practices” (Barton 1994:32).

For the purposes of the current study, the notion of genre can contribute to describing the social interaction of the project group under investigation. Is the practice of copying in recipients restricted to - or typical of - one specific genre? And are the interpersonal consequences different in the dialogue genre compared to the other genres? Analyzing a community’s genre repertoire can also lead to a better understanding of how members operate

[31] See Murray (1991:3, 55f., 151f.) for a discussion on CMC and literacy.

as a social group, for instance to what extent they appear democratic or autocratic (Orlikowski & Yates 1994). In order to go deeper into such questions, however, we need to draw on insights from organizational studies.

Organization scholars have focused on the social impact of electronic mail in organizations. The focus has generally shifted from identifying the nature of the technology and its impact on human communication (Sproull & Kiesler 1986), to assessing a medium's richness and predicting which channel is appropriate for what type of interaction (Markus 1994). Within the media-richness framework, email is traditionally considered a lean medium, compared to face-to-face interaction. The theory predicts that managers would perceive email as an inappropriate medium for managing equivocal communication tasks. However, Markus (1994) found that email was indeed used effectively for equivocal communication.

One example from her data shows an equivocal email conversation between a senior manager, ‘Ted,’ and his subordinates, ‘Sheila’ and ‘Mike,’ which involves the exchange of different subjective views, a disagreement, and a movement toward an agreement. The exchange ended by ‘Sheila’ forwarding the whole exchange to a subordinate to explore the issues raised in the message, and sending a copy of the same message to ‘Ted.’ According to Markus (1994), this use of email “seems an especially effective way of quickly involving more than two people in a complex interaction that stretched well outside of normal business hours” (Markus 1994:517). The current study addresses one of the mechanisms that may explain the popularity of email as a workplace communication tool.

While organizational studies do not take up the copy phenomenon in any further detail, some case studies discuss how email in general can be used strategically, for instance to increase central power or to build coalitions in the Workplace (Romm & Pliskin 1998). The discussions reveal that email is a “double edged sword” (Brigham & Corbett 1997:28-29). On the one hand, it decentralizes institutional power and represents a democratizing medium:

> However, groups using email tend to produce more diverse opinions and better contributions to the decision making process. Email increases access to new people; weakens spatial, temporal, and status barriers, and provides access to information that would otherwise be unavailable. (Garton & Wellman 1995:434)

On the other hand, it enables managers to control their subordinates at a distance (Brigham & Corbett 1997). Because managers in some organizations have access to the employees' email account, the email system facilitates monitoring and control of the on-going working process. According to Brigham & Corbett (1997), these technological affordances “highlight the power of email and facilitate individual acts of self-control and discipline" (Brigham & Corbett 1997:31).

Linguists have also investigated the power of email. Mulholland (1999), for instance, argues that the practice of appending the responder's messages to the original one is democratic in nature: "There is a democratic virtue to such unordered strings, precisely because no authoritative sender has digested and summarized the information in the string of texts for the reader; there is therefore less prior control of that information" (Mulholland 1999:73-74). Mulholland's further characterization of appended messages as "raw and unrestricted information" (1999:74) seems relevant for our understanding of email copies in the current study. A central question is to what extent the practice of copying in recipients may contribute to institutional power or equality.

Most linguistic studies focus on how language is manifested in electronic discourse rather than on social interaction in electronic media. Organizational studies, on the other hand, focus on the social implications of email, but do not base their discussion on actual instances of email interaction. Consequently there seems to be a need for discourse analytic work on email interaction with an explicit focus on the interactional processes and procedures involved, which is what we propose to do in the following.

First, the data used in the study are presented, followed by a presentation of the theory of audience design. Then the implicit and explicit addressing devices in email interaction and the functions of sending copies are analyzed. Finally, we consider the organizational implications of sending email copies and discuss how the copy routine establishes a social practice and develops the participants' digital literacy.

7.3 Data and Methods

The data for this study are emails from a distributed project group called 'Agenda' in a Norwegian telecompany, 'Telecom' (TCM)[32]. The email exchanges were gathered from August 2004 to December 2004 and amount to approximately 700 emails[33], of which 300 contain in-copied recipients. The messages were collected with assistance from the Agenda members, who during the period continuously forwarded their exchanges to the researchers.

[32] All names of companies and employees are pseudonyms.

[33] Initially, the data-set comprised of approximately 700 emails, of which 300 contained in-copied recipients. However, approximately 200 emails had to be left out of the final collection, due to some errors in the file-format which led to difficulties in tracing the threads.

Agenda's main task is to edit all confirmation letters that are distributed to customers in the private market. The members formulate, revise, and standardize letters and templates, with the purpose of giving all letters a uniform style that communicates in a clear and polite way to the customers. They are frequently contacted by various divisions in the company with requests to reformulate their letters. In order to give the letters a unified tone, they follow a set of guidelines concerning orthography, sentence structure, and style.

The project group consists of 12 members, each representing a team from the different divisions of the company: *Telephony*, Birgitte Hansen; *ADSL*, Siri Vogt; *Dial-up*, Elisabeth Eide; *Mobile*, Jon Olavsen; *Customer Service*, Geir Olsen; *Credit*, Line Larsen; and *Invoice*, Janne Eia. In addition, Agenda includes *text designer* Maria Monsen, *system operator* Geir Johnsen, and an observer and *system operator* from another division, Are Strand. The manager of the project group is Line Myhre, and she in turn reports to Arvid Lervik, the Information Director of TCM Private.

The senders and recipients of the messages are primarily Agenda members. Most of them are physically located in different departments and even in different parts of Norway. They have occasional meetings at the main office, but most of their communication is carried out by email and telephone. The members usually interact in dyads, sometimes with selected co-members copied in, and seldom address the group as a whole. Some members are more active than others, for instance text designer Maria Monsen, manager Line Myhre, and the system operators Geir Johnsen and Are Strand. Yet all of the members are represented in the data. The members also interact with external collaborators within and outside of TCM, such as employees at the print central 'Strålfors' and members of Agenda Business.

In addition to the email collection, extensive ethnographic and interview data were collected in order to contextualize the communicative practices. The emails were originally written in Norwegian, but are translated into English here. The translations are idiomatic, rather than word-by-word, in order to keep the style as authentic as possible.

The investigation is a case study, primarily based on close reading of all the email messages that involve in-copied recipients. First, each email message was categorized with respect to the various explicit and implicit addressing devices used. Second, the situations in which senders copy in others were identified. This resulted in a list of functions, which in turn were associated with ideational, textual (interactional), and interpersonal meta-functions. The identification of communicative functions is carried out by sequential analysis, based on the participants' displayed orientation to a specific meaning of a message in the subsequent responses (cf. Heritage 1984). This limits the problems associated with the multifunctionality of communicative actions. However, the total meaning of a message will never be completely revealed in the response. We therefore address certain problems associated with multifunctionality in further detail in our analysis.

7.4 Audience Design in Conversation

The point of departure for the current study is Bakhtin's (1986) concept of "addressivity," which involves the notion that every utterance intrinsically embodies the quality of "turning to someone." This is based on an epistemology of "dialogism," emphasizing the "reflexive relations between discourse (and cognition) and contexts of various kinds" (Linell 1998:9). Other approaches dealing with addressivity in slightly different terms are Goffman's theory of "hearer roles," i.e., his "participation framework" (Goffman, 1981:154), Sacks's notion of "recipient design" (Sacks, Schegloff, & Jefferson 1974) and Clark's theory of "audience design" (Clark 1992, 1996). According to Sacks, et al. (1974:727), recipient design "refers to a multitude of respects in which the talk by a party in a conversation is constructed or designed in ways which display an orientation and sensitivity to the particular other(s) who are the co-participants". Clark (1992) has developed the ideas of Goffman and Sacks into an analytic framework that we will use as our primary tool in the following. Clark (1992:218) distinguishes four basic participation roles:

5. *Speaker* (the person who performs the illocutionary act)
6. *Addressees* (the participants who are, or could be, designated vocatively in the utterance)
7. *Participants* (the hearers the speaker intends to "take part in" the illocutionary act that is directed at the addressee)
8. *Overhearers* (the hearers who are not intended by the speaker to "take part in" the illocutionary act)

These basic roles can be further subdivided into roles such as *side participants*, *bystanders*, and *eavesdroppers*:

8. *Side participants* (the participants who are not addressees)
9. *Bystanders* (those overhearers who have access to what the speakers are saying and whose presence is fully recognized)
10. *Eavesdroppers* (those overhearers who have access to what the speakers are saying, but whose presence is not fully recognized) (Clark, 1992:202, 250)

When speakers design their utterances for overhearers, they take into consideration that the overhearers can form hypotheses about what they are saying. Senders cast the in-copied recipients in an observer role by informing them of the speech acts they perform towards primary recipient(s). The copy reveals information at two levels. First, the in-copied recipients are informed of the actual tasks that are in progress. Second, they become witnesses to *how* the information is communicated, the stylistic register, and its social implications. When speaking for overhearers, the speaker can perform one illocutionary act toward a primary addressee, and another to an indirect addressee. This is what Clark (1992:213) calls a *lateral indirect illocutionary act*: “In talking laterally, the speaker doesn't seem to be speaking to the indirect addressee, but to someone else”. Clark uses the following example to illustrate illocutionary acts which is lateral and indirect: “Mother, to three-month-old, in front of father: *Don't you think your father should change your diapers”*" (Clark 1992:212). As we will argue in our analyses, copying in recipients serves to inform colleagues of ongoing activities in the organization. We examine how senders tailor their messages to in-copied recipients. Additionally, we discuss in which circumstances a copy may lead the in-copied side-participants to form hypotheses about how the senders are doing their job, about relational implications, and about the relevance of being copied in.

7.5 Audience Design in Email Interaction

Participants in email interaction use two general strategies in assigning their recipients to different participant roles. One is by using the heading system; the other is by addressing recipients in the message itself by means of various explicit and implicit addressing devices.

By placing the recipients in the ‘To’ and ‘Copy’ fields, senders explicitly define who they intend as ‘primary’ and ‘secondary’ (in-copied) recipients. Using Clark’s participant roles, we could define participants placed in the ‘From’ field as ‘senders’ (corresponding to Clark’s ‘speaker’), participants in the ‘To’ field as ‘primary recipient(s)’ or ‘addressees’, and those placed in the ‘Copy’ field as ‘side-participants’ (see Table 16).

Email Heading	**Recipient Status**	**Participant Role**
From: Johnsen Geir (Networks)	Sender	'Speaker'
Sent: 27.oktober 2004 08:33		
To: Gran Hanne (Norway)	Primary Recipients	'Addressee'/'Side-participant'
Copy: Bruset, Arne (Norway; Røed, Tove	In-Copied Recipients	'Side Participants'/'Addressees'
Subject: "quiet period" for changes (Intern)		

Table 16. Recipient statuses and participant roles

Explicit addressing by the heading system may involve several constellations of individual and collective participants. The sender may address people individually or collectively, and as primary or secondary recipients. The various possibilities are listed in Table (17).

Explicit addressing by the heading system

1. One primary recipient in the 'To' field, no in-copied recipients
2. One primary recipient in the 'To' field, one ore more in-copied recipients
3. Two ore more recipients in the 'To' field
   a) addressed as a group (TelecomAgenda)
   b) addressed as multiple individuals (Gran, Johnsen)

Table 17. Addressing devices in the heading system

Interestingly, the participant status in the heading does not correspond directly to the participant roles assigned in the message itself. As in face-to-face-conversation, participant roles can change in the course of one message. Whereas the recipient statuses in the heading system may seem stable and fixed, the participant roles in the message itself can shift depending on the sender's addressing devices. In the following, we demonstrate how senders address their recipients differently, assigning them different hearer roles by using different addressing devices, as listed in Table (18).

Explicit addressing in the text

a) Salutations (Hi Eva!)
b) Second person pronouns (du – you (sg.), dere -'you' (pl.))
c) Vocatives (Maria, will you...)

Implicit addressing in the text

a) Targeting of speech acts (direct or lateral)
b) Tailoring of information to assumed background knowledge

Table 18. Addressing devices used to assign participant roles in the message itself

Types of explicit addressing devices used in the message itself include salutations, pronouns, and vocatives, highlighted in boldface in the example below:

(1) From: Myhre Line (Telecom)
Sent: November 23, 2004 10:04
To: Engseth Eva (Telecom)
Copy: Lervik Arvid (Telecom); Marit Fondenær (Email); Monsen Maria (Telecom); Eide Elisabeth (Telecom)
Subject RE: Agenda meeting today - abuse letter (Intern)

Hi Eva! thanks for your response, but in my opinion too comprehensive. Abuse is one letter that needs a better tone of voice. As **you** [sg.] saw in the previous mail, this is a letter that is sent from Internet, NOT a confirmation letter. [...] **Maria, would you** estimate how much time it will take?

Thanks in advance for your help on behalf of the abuse group in Internet.

Best regards Line

In example (1)[34], Eva Engseth is the primary recipient, and Arvid Lervik, Marit Fondenær, Maria Monsen, and Elisabeth Eide are copied in. Line Myhre addresses Eva Engseth explicitly by salutation (“Hi Eva”) and further by using the singular personal pronoun “du” (“As you saw...”). Then Line Myhre turns to Maria Monsen, who is copied in, and explicitly addresses her by a vocative (“Maria, would you”). This example demonstrates how the hearer roles may shift in the course of the message, Maria Monsen becoming temporarily the main addressee, while Eva Engseth is turned into a side-participant.

Senders also use *implicit* addressing devices to assign in-copied recipients the role as addressees. Example (2) was initiated by a message from Maria Monsen providing a new version of the back of the invoices. Her message was sent to Janne Eia, with Line Myhre and Heidi Fossnes copied in. Maria Monsen’s message was followed by a suggestion from Line Myhre that they should involve Katrine Bakke from Customer Service to verify that the invoice is legally correct. Maria Monsen then replies by indirectly and laterally addressing the in-copied Janne Eia:

(2) From: Monsen Maria (Telecom)
Sent: September 30, 2004 13:46
To: Myhre Line (Telecom)
Copy: Fossnes Heidi (Telecom) Eia Janne (Private) Fondenær Marit
Subject RE: reformulating the text on the back of the invoices

I believe that Janne is taking care of this (?)
:)
Maria

[34] Baldface added.

Maria Monsen's reply in (2), "I believe that Janne is taking care of this (?)," is explicitly directed to Line Myhre, the primary recipient. However, it is simultaneously an indirect request to the in-copied recipient, Janne Eia. Maria Monsen does not address Janne Eia directly (vocatively), but refers to her *indirectly* and *laterally*, as a third person. Thus in example (2), Maria Monsen is performing illocutionary acts directed at both recipients. The indirect request to Janne Eia is an implicit way of appointing her as addressee.

Senders may also address in-copied recipients implicitly by modulating the information presented to fit their background knowledge. Quite commonly such messages present information that is already known to the primary recipient, and thus seem primarily directed at the in-copied recipient. When Janne Eia from the Invoice division asked Agenda to reformulate the invoices in Telecom, she addressed Line Myhre. Line Myhre then forwards the order to Maria Monsen, copying in Janne Eia:

(3) From: Myhre Line (Teleconm)
Sent: September 13, 2004 09:47
To: Monsen Maria (Telecom)
Copy: Eia Janne (Private); Fossnes Heidi (Telecom)
Subject: RE: reformulating the text on the back of the invoices

Hi Maria, have you got any possibilities to look at these texts. A "face-lift" on the invoice is needed so that the tone of voice becomes CONSEQUENT AND CLEAR.

Notify me in case you haven't got the possibility.

rgds Line

What is interesting in example (3) is that Line Myhre makes it explicit to Maria Monsen that she wants the wording ("tone of voice") of the invoices "CONSEQUENT AND CLEAR." This phrase is a quote from Agenda's guidelines, and is often cited in their meetings. So why should Line Myhre stress this point when it is already part of her and Maria Monsen's background knowledge? The answer seems to be that she is doing so to inform Janne Eia of the guidelines in Agenda. Maria appears to be tailoring her utterance to take account of the background knowledge of the external "customer," Janne Eia; she thereby implicitly makes Janne the addressee of this information.

Secondary recipients orient to the copies as relevant messages, for instance by replying to indirect, lateral illocutionary acts. However, the relevance of a copy is not always obvious, especially when the sender does not address the in-copied recipients explicitly. In such instances the copy invites the in-copied recipients to fill in the relevant context and compute the necessary conversational implicatures.

The employees in Agenda (and TCM) accomplish a great deal of their work through email interaction. They report that email traffic is pervasive and that they are flooded by emails every day. In this context, the use of various addressing devices to grade and rank participation status can be considered a resource for managing the flow of information. By assigning roles as addressees and side-participants, senders indicate the relevance of the message to the individual recipients and their expected degree of involvement and participation.

7.6 Communicative Functions of Copying in Recipients

The employees in Agenda use the copy function in connection with certain recurring activities. Copies are related to various aspects of the discourse context, such as the *activity* displayed (or speech act performed) in the email message and the in-copied recipient's affiliation/professional role (manager, text designer, system administrator, etc.).

7.6.1 Informing Co-Workers

In this section, we examine in what circumstances senders copy in recipients, and what kind of information senders orient to as “shareable” and useful information for their co-workers. In the data, employees typically send copies to co-workers with common institutional responsibilities. The main purpose of the copy is to build a pool of information concerning ongoing activities and institutional rules. Copies are primarily used in three types of circumstances in Agenda. First, they distribute reformulated letters, with the reformulated letter attached. Second, they distribute information about specific ongoing activities in the group. Third, they distribute information about general rules and guidelines for the work.

The main task for Agenda is to check and reformulate letters for the entire company. The text designer, Maria Monsen, has a major responsibility in this process. After having reformulated a letter, the procedure is to return it to the product owner in the division where it belongs, with a copy to collaborators on the actual letter, which in (4) is Heidi Fossnes:

(4) From: MonsenMaria (Telecom)
Sent: September 10, 2004 3:23 PM
To: Jon Olavsen (Telecom)
Copy: Fossnes Heidi (Telecom)
Subject: Notice letters

Hi Jon!

Here's the text. As you'll notice, I've made some changes ;) I wish you a brilliant week-end (or monday - depending on when you read this).

Greetings
Maria

Distributing documents is an important function of sending copies. As text designer in Agenda, Maria Monsen reformulates and sends back letters to the different divisions that have assigned her tasks. Very often she copies in affiliated co-workers when sending back a reformulated letter. The copy serves to update and inform the co-workers, as well as to give them the possibility to respond to the new text.

The members of Agenda routinely inform their colleagues of progress in specific projects. In example (5), Line Myhre informs her co-members in Agenda of the signatures that are going to be printed on all the confirmation letters:

(5) From: Myhre Line (Telecom)
Sent: September 8, 2004 14:32
To: Strand Are (Networks); Lervik Arvid (Telecom)
Copy: Johnsen Geir (Networks); Monsen Maria (Telecom)
Subject: Signature review in one document

Hi
Are, ref today's conversation. Here comes the document which sums up the current signatures. At the bottom of the page you'll find a task for Agenda Business and Networks.

Arvid, I ask you to look at my proposal at the bottom at the page concerning returning customers
With best regards
Line Myhre

In (5) Geir Johnsen and Maria Monsen are not explicitly addressed, and the relevance of the information to them is not indicated. By copying them in, however, Line Myhre provides information to a common institutional log (or “diary,” cf. Clark, 1996:114). The information about the activities in progress continuously updates the participants about the current situation as the work proceeds. Additionally, the fact that Maria Monsen responds to Line Myhre's message demonstrates that the sender makes it possible for more people to contribute their ideas and suggestions to the question being handled when sending an email to multiple recipients. This function of facilitating participation is developed below.

Many emails among Agenda members consist in defining rules and procedures for the work of the team. Prior to example (6), Maria Monsen asked whether notice letters belong within Agenda's domain. With her authority as Director of Agenda, Line Myhre, defines the notice letter as a confirmation letter and thus as belonging to Agenda's domain:

(6) From: Myhre Line (Telecom)
Sent: September 13, 2004 15:46
To: Monsen Maria (Telecom)
Copy: Fossnes Heidi (Telecom)
Subject: RE: Notice letters (Intern)

Notice letters belong to Agenda Private's domain
- orders and notices are confirmation letters [...]

In speech act terms, Line’s definition is a *declarative*, establishing a new institutional reality (Austin 1962). By copying in Heidi, she adds this information to their common base of institutional rules and guidelines. Copying in employees may thus serve to announce new rules and procedures to the parties affected by them. Significantly, these rules may be stored in the participants' email archive and made available for future reference. Brown, Middleton, and Lightfoot (2001) observe how the archives allow the manager, or the employees, “to view these archived messages as a series of obligations or promises that are pertinent to a particular project.” Accordingly, the manager can “evidence what she takes to have been a promise, either by referring to the email or by forward it back to original sender” (Brown et. al. 2001:136).

7.6.2 Facilitating Participation

Our analysis showed that copying in colleagues facilitated participation from the in-copied recipients. Employees strikingly often copy in co-workers who have been or are going to be involved in a common task. They thereby establish a common pool of information.

Additionally, they implicitly or explicitly invite the in-copied participants to provide information or comment on the work in progress. In other words, they establish a virtual dialogue space. We found that the function of facilitating participation can be differentiated in three categories. First, email authors facilitate participation by producing indirect requests for action that are potentially directed at several recipients, as in lateral indirect illocutionary acts. Second, they use copies to appeal indirectly for approval or collaboration in decision-making. Third, a copy may serve to reframe the participant structure within an existing network of collaboration or to expand the network by inviting new colleagues to participate.

Participants can facilitate participation by indirectly requesting action. As noted in connection with example (2), senders may implicitly address in-copied recipients by performing a lateral indirect illocutionary act ("I believe that Janne is taking care of this (?)"). By doing so, they perform two illocutionary acts, one directed at the primary recipient, and another directed at the in-copied recipient. This may be a practice for saving time and maximising efficiency. In (2), neither Line Myhre nor Maria Monsen needs to write a separate email request to Janne Eia. Lateral indirect illocutionary acts may also have social implications. They may be more polite because they present the request more as a suggestion than as an imposition. However, they may also be experienced as condescending or patronizing in that they do not show explicit concern for Janne Eia's face (e.g. Brown & Levinson 1987) and seem to take compliance for granted.

When copying in co-workers, senders implicitly or explicitly invite them to provide information to, or comments on, work in progress. Copying in a superordinate may be used to implicitly seek approval of the action performed in the mail message. In example (7), the Agenda manager Line Myhre copies in her superordinate in responding to a question from Geir Johnsen, the system operator. Initially, Geir Johnsen had proposed a temporary solution to a problem. Line replies to Geir's proposal with approval:

(7) From: Myhre Line (Telecom)
Sent: September 30, 2004 11:49
To: Johnsen Geir (Networks)
Copy: Lervik Arvid (Telecom); Marit Fondenær (Email)
Subject: RE: Progress Letters with signature?

Geir, it's a very good solution to start with name and affiliation in the signature and after that when we start with Strålfors we will add the signatures as well.

rgds Line

In this message, Line copies in the Information Director Arvid Lervik. He later responds with a ‘reply to all’: “I agree with Line! Arvid.” By copying in Arvid Lervik, Line gets backing for her decision and indirectly invites him to approve. Copying in co-workers when decisions are made can thus be a device for implicitly inviting them to evaluate or certify the decision. This form of appeal is less compelling than a lateral speech act, and may be more easily ignored. It is more a matter of giving people an opportunity to participate than of requesting a response.

Copies sometimes serve to inform the in-copied recipients of alterations in the participant framework. The most typical format is when members of Agenda forward an email request to a colleague. In such cases they usually copy in the employee requesting the service. The main purpose seems to be to inform the requester of the new participant structure of the future contact.

Senders may also expand networks by inviting colleagues to participate in the future. Example (8) is a typical instance:

(8) From: Calle Persson [mailto:calle.persson@stralfors.no]
Sent: October 25, 2004 1:45 PM
To: Strand Are (Networks); Johnsen Geir (Networks); Isaksen Øystein (Mobile); Olavsen John (Telecom);
Copy: Trine Martinsen, Simpsson Derek (Private); Harald Nilsen Lg3; Ole Vindtorn [...]
Subject: Attachments - specifications for production

Hi!

Attached are the specifications and guidelines for production of attachments to invoices and letters. (..) (..) If you are going to produce an attachment, it is a nice rule to check it with Trine Martinsen in Strålfors before your work has come too far. I recommend you to seek advice before the creative process starts so that you do not waste time and energy on things that could have been avoided in advance.

You meet Trine on:
Xxxxxxx

With best regards
Calle Persson

In example (8), Calle Persson, representing Strålfors, informs employees in various divisions in Telecom of new routines. He requests them to contact Trine Martinsen at Strålfors before they start producing attachments to letters. Trine Martinsen is copied in, and thereby informed of his request to Telecom employees. Simultaneously, she is informed that she has a responsibility to help the Telecom employees in producing attachments. By copying her in, Calle Persson includes her in a future network of collaboration.

7.6.3 Building up Networks, Group Identities, and Alliances

Sending copies is an important resource for building networks, group identities, and alliances in work life. Sending a copy to important persons in the organization may be a way of boosting one’s own position with regard to the primary recipients. It may also serve to make one's professional achievements visible to superordinates. Copying in others may thus have important relational implications and may contribute to establishing one's institutional position and identity. Our data reveal that copying in recipients can serve to back up reasoning and build up alliances in emerging conflicts. Additionally, it is used to back up reminders and to appeal for support, feedback, and acceptance.

Prior to example (9) below, Line Myhre had sent an email to her superordinate, Arvid Lervik, informing him about the last Agenda meeting where the group discussed a new task for Agenda, namely to reformulate the ‘Abuse’ letters.[5] She reported that the task was assigned to Maria Monsen, who has a 30% workload in Agenda. The message included copies to Eva Engseth, Elisabeth Eide, and Maria Monsen. Five days later she receives the following response from Eva Engseth in the Internet division:

(9) From: Engseth Eva (Telecom)
Sent: November 23, 2004 09:20
To: Myhre Line (Telecom)
Subject: RE: Agenda meeting today - abuse letter

What's this Line? If this is going to be given priority in connection with Maria's 30%, you have to present the whole case with a brief concerning activity, purpose, estimated time needed, when you wish to start, the responsible for the activity, target group, message and possibly other comments so that we can evaluate this against other things acc. to a prioritization. Per today Maria is fully booked almost until Christmas with tasks from Internet and we need more capacity throughout this (??). Therefore, I have started to see if it's possible to hire an external text designer, but until this is realized we alternatively have to use an external agency when necessary.

Eva

In example (9), Eva Engseth complains to Line Myhre that she has assigned new tasks to Maria Monsen without consulting her and without presenting information about the activity. In Line's reply in example (10), she copies in Arvid Lervik, her superordinate, plus Maria Monsen and Elisabeth Eide:

(10) From: Myhre Line (Telecom)
Sent: November 23, 2004 10:04
To: Engseth Eva (Telecom)
Copy: Lervik Arvid (Telecom); Marit Fondenær (E-post); Monsen Maria (Telecom); Eide Elisabeth (Telecom)
Subject: RE: Agenda-meeting today - abuse letter

Hi Eva! thanks for your response, but in my opinion too comprehensive. Abuse is one letter that needs a better tone of voice. As you [sg] saw in the previous mail, this is a letter that is sent from Internet, NOT a confirmation letter. Arvid wishes to prioritize this on behalf of Telecom, because we have much badwill in this area. (ref VG[35] article last week.)

Maria, will you estimate how much time it will take?

Thanks in advance for your help on behalf of the abuse-group in Internet.

Best regards Line

Line appends Eva Engseth's previous mail (example 9) and thereby exhibits her message to all the recipients. And since she characterizes Eva Engseth's reaction as unreasonable ("too comprehensive"), she may be considered to be invoking them as witnesses to this "overreaction." Furthermore, she strengthens her case by referring to Arvid Lervik's point of view ("Arvid wishes to prioritize this") and Telecom's interests ("on behalf of Telecom"). Copying in Arvid Lervik while making claims about his wishes signals clearly that he is "on her side." Line boosts her authority and strengthens the legitimacy of her claims by invoking support from her team and the Information Director. Copying in Arvid Lervik also gives him the opportunity to comment on her decision, which he actually does 15 minutes later in a personal reply: "Well done, Line!! Arvid." Line follows up with: "Nice feedback :-)), Arvid (...)."

By copying in co-workers in Agenda, Line Myhre thus makes them into witnesses and supporters, and this contributes to backing up her argumentative position. By demonstrating that she has the authority on her side, she dismisses Eva Engseth's objections without even going into the discussion.

[35] VG is a Norwegian newspaper

Copying in superordinates is also used to back up reminders and increase the pressure put on the recipients. In example (11) the system operator, Geir Johnsen, sends a reminder to Arvid Lervik, copying in Line Myhre, his superordinate. Prior to this example, Geir Johnsen had asked Line Myhre for information. Her reply was: "Arvid will get back to you concerning this subject," with a copy to Arvid Lervik. Laterally and indirectly her reply requested Arvid Lervik to provide the information to Geir Johnsen. One week later, Geir Johnsen sends Arvid Lervik the reminder, requesting him directly to provide information about the signatures:

(11) From: Johnsen Geir (Networks)
Sent: August 26, 2004 10:30
To: Lervik Arvid (Telecom)
Copy: Myhre Line (Telecom)
Subject: RE: Signatures

I wonder if you could find the official titles that I'm going to publish together with the signatures.

Regards Geir Johnsen

-----Original message-----

[...] (original thread deleted)

By appending the whole thread of messages, Geir Johnsen reminds Arvid Lervik of Line Myhre's previous request. A copy to Line Myhre, his superordinate, serves to increase the pressure. It also serves to inform Line Myhre that the signature task has not progressed, and is delayed because of the lack of response. This frees Geir Johnsen from the responsibility for the delay. In addition, copying in Line Myhre could be a device for indirectly requesting her to take responsibility for the situation. As such, copying in superordinates to back up reminders can be a safeguarding strategy, either to inform or to shift responsibility.

When conflicts arise in email interaction, superordinates may be invoked as witnesses and arbiters by sending them copies of mails that may not be relevant in other respects. For example, Hanne Gran and Geir Johnsen are discussing what would be a suitable time for a "letter freeze, that is, a period when the computer system is down and no changes can be made to letters. They use an informal and personal style in their exchanges, as in example (12):

(12) From: Gran Hanne (Norway)
Sent: August 27, 2004 15:43
To: Johnsen Geir (Networks)
Subject: RE: "quiet period" for changes

Hi,

I don't think Diff abm. will be further postponed. But there will be more fun in November. Between 1st - 15th of November is the starting-shot of the Christmas Campaign (both telephoni and ADSL), then Total Customer will be on the air from about November 15th and [...]. I would recommend instead that you consider December, evt. January if you (pl.) consider it hard to get finished until the middle of October.

Best regards
Hanne

After approximately two months, Hanne Gran comes back to Geir Johnsen, complaining that the freeze period has been set at an inconvenient time. The style is suddenly more formal, and she copies in two colleagues:

(13) From: Gran Hanne (Norway)
Sent: October 26, 2004 16:37
To: Johnsen Geir (Networks)
Copy: Bruset Arne (Norway); Røed Tove (Norway)
Subject: RE: "quiet period" for changes

Hi Geir,

I read at the Letter-corner web yesterday that there is a freeze period for letter changes from October 20 to November 22. This creates huge problems for us [...] it is very unfortunate that we aren't warned about such a long-lasting and comprehensive freeze period that you [pl.] are carrying out in that period. I reckoned that my email below gave clear feedback that this was an unfortunate period and as long as I didn't hear anything more from you [sg] I supposed that this was taken into account.

I hereby ask you [pl.] to implement letters according to the campaigns we are going to run and that this is dealt with as critical letter changes. This includes primarily:

1) Super Saturday 2005
2) Wireless web-telephones
3) Changes in texts for Diff. sub.
4) Christmas Campaign ADSL
5) Change of product-code

All the changes have previously been reported to Agenda att. Bente Underud or to you by Kristian Almo, Arne Bruset and Tove Røed.

Can you [sg.] confirm that the implementation of these letters is OK?

Best regards
Hanne Gran
IT Change management

Example (13) represents a shift to a more formal style, including such expressions as “I hereby ask you” and frequent use of passive voice (albeit with certain lapses into informal style, as in “huge problems”). Considering that this is a complaint, there are few expressions of emotion, except for formal expressions such as “very unfortunate.” By using this style, Hanne Gran takes on an institutional role rather than a personal one. The fact that she copies in third parties further serves to depersonalize the correspondence and underline the institutional character of the complaint. The in-copied recipients are invoked as “witnesses,” potentially testifying that the complaint is reasonable and legitimate. In addition, as colleagues from her department, they can be considered “supporters,” backing up the claims and strengthening the institutional authority of the message.

Geir Johnsen answers Hanne Gran, adding one more recipient to the copy field, namely Line Myhre, the manager of Agenda:

(14) From: Johnsen Geir (Networks)
Sent: October 27, 2004 08:33
To: Gran Hanne (Norway)
Copy: Bruset Arne (Norway); Røed Tove (Norway); Line Myhre (Telecom in Norway)
Subject: RE: "Quiet period" for changes

I regret that you [sg.] didn't know about this letter freeze, but Agenda did carry out an 'information round' to all the product leaders in good time ahead of the letter freeze. Before the letter freeze we were informed about points 3, 4 and 5 in the list below and they have been taken into consideration and will be implemented. Points 1 and 2 have popped up after the letter freeze was introduced. We'll see what we can do about these. Let's manage this in the simplest way possible while the letter freeze lasts.

We made, as you [sg.] remember, inquiries to find a suitable time for both the TAPAS project and a period with as few changes as possible for letters. However, we didn't receive as much response as we had expected about planned letter changes. The only thing was Diff. sub. That's why we kept the suggested period that is now introduced.

There is a general problem that we in Agenda do not have any overview of what letter changes are planned.
[...]
Regards Geir Johnsen

In the second paragraph in example (14), Geir Johnsen refers explicitly to their common ground (“as you remember”). This recapitulation of their previous correspondence seems primarily aimed at updating Line Myhre. The topic of discussion does not directly concern her, as manager of Agenda; the reason she is copied in seems to be related to the interpersonal conflict itself. As we see, Geir Johnsen does not accept the criticism, but presents the problem as Hanne Gran not having informed him properly. However, the tone is less confrontational than in Hanne's message in (13), in that he uses non-agentive constructions, for instance, when claiming that she had not informed him previously about certain letters: "Points 1 and 2 have popped up after the letter freeze was introduced." He goes on to say that it is a general problem that various divisions do not inform the production unit about changes. In this way he returns the complaint, albeit mitigating it slightly by presenting it as a general problem (and not just a problem with Hanne Gran).

By copying in his superordinate, the manager of Agenda, Geir Johnsen also seeks support and backing for his account of the problem. In this way, they both use in-copied recipients from their own departments as "supporters." In addition, the third parties may serve as "witnesses," that is, an observing public of not directly involved participants who can serve as arbiters that propriety and tact are observed in an emotionally loaded situation. In this way, side participants have a dual function in situations of conflict. They may serve both to strengthen the sender's position, thus contributing to escalating the conflict, and to make the discussion public, thus contributing to decreasing the conflict.

Line Myhre answers Geir Johnsen: "Thanks for info in the other mail, Geir. Great that you follow up on this! If you need any help, let me know." She thus takes on the role of a supporter, in that she compliments him with her reply and offers more "help" if needed.

7.7 Conclusion

Designing email messages for multiple recipients is a complex operation that requires attention to the different sorts of background, interests, and affiliations of the recipients addressed. This study has shown that participants in a Norwegian distributed work group design their messages with side participants in mind, and that they use copies strategically to fulfill work-related tasks and to manage social relationships. Bringing in certain patterns of communication from conversational interaction, the participants establish new practices and conventions of email interaction.

By differentiating between primary and secondary recipients, senders assign their colleagues various recipient roles and create a virtual communication space where the in-copied recipients are more or less explicitly invited to respond. Senders address their recipients *explicitly*, by adding them to the ‘To’ and ‘Copy’ fields, or by using salutations, personal pronouns, and vocatives in the message itself. They also address them implicitly, by producing lateral indirect speech acts and by tailoring their messages to the in-copied recipients' background knowledge. When copied in, recipients are given the possibility to contribute their opinions or suggestions. In the case of lateral speech acts, the evocative function is even more salient.

The employees in Agenda accomplish a great deal of their work tasks through email interaction. As a consequence of the electronic network, email traffic is pervasive and employees are innundated with emails of varying relevance. The grading of recipient roles and addressing devices may be considered a method the employees have adopted to manage the flow of information. By indicating variable participant statuses, the sender indicates the relevance of a message and invites various degrees of contribution.

The copy function is an effective tool for building a common pool of information and inviting further contributions to it. The employees send copies in order to distribute documents, to update their colleagues about ongoing activities, and to define rules and procedures for their work. In addition, they use copies to establish networks of collaboration, informing customers and colleagues of who will be involved in a given task.

Copies are also used for building alliances and personal identity within the organization. Copying in colleagues, and especially a superordinate, from one's own department is a practice for giving a message a stronger institutional anchoring and thus for strengthening one's authority as a speaker. Side participants may also be invoked as "witnesses" to the exchange, securing that the communication conforms to norms of propriety and seriousness.

The current analysis has made visible the local practices of copying in colleagues in workplace interaction. Our findings, summarized in Table (19), suggest that copying in recipients serves informative, interactive, and interpersonal functions.

1. Informative function: Establish and update information pool
a) Distributing reformulated letters (attachments)
b) Distributing information about ongoing projects
c) Defining general rules and procedures

2. Interactive function: Facilitate participation - reframe participant structure
a) Lateral speech acts
b) Indirect appeals for approval or collaboration in decision making
c) Reframing the participant structure within a network of collaboration

3. Interpersonal function: Build up networks, group identities, and alliances
a) Copying in superordinate to back up reasoning
b) Copying in superordinate to back up reminders
c) Copying in superordinate to seek support in emerging conflicts

Table 19. Communicative functions of copying in recipients

7.7.1 Organizational and Social Implications

The practice of sending copies of letters is not new, and electronic copy practices have clearly taken up certain elements from the use in traditional correspondence. However, the ease of adding recipients to the copy field has made the electronic version more pervasive and has led to new interactional practices. Employees use copies to achieve routine collaboration in their daily work tasks, sharing knowledge, prompting feedback, and seeking support. They thereby establish ad hoc networks across physical and institutional boundaries. This contributes to creating new patterns of interaction and to erasing traditional hierarchical structures and established lines of information flow. From this perspective, copying in recipients may lead to alternative, emergent structures within the organization and thereby have a “democratizing” effect. This is in line with observations in other studies of email in organizations (Brigham & Corbett 1997, Garton & Wellman 1995, Markus 1994, Mulholland 1999). On the other hand, the practice of copying others in can also serve to reinforce hierarchical structures within the organization. It makes it easier for participants to appeal to superordinates to back their claims in cases of conflict and thereby to stress the importance of institutional status rather than the force of the argument. Furthermore, calling in “witnesses” may increase the degree of social control by exerting institutional pressure on recipients to conform to a corporate norm of behaviour. This supports Brigham & Corbett (1997), who claimed that the technology of email facilitates individual acts of “self-control” and “discipline” (1997:31). In conclusion, electronic copy practices have the potential to render internal communication both more democratic and more hierarchical. It is the various contexts that decide the actual effect of copying in recipients.

Copying in recipients gives employees the opportunity to build their professional identity by presenting their ideas and achievements to other members of the organization, and especially to superordinates. Our data contain several instances (e.g. (7) above) where employees copy in their superordinates and receive praise for their performance in response. This becomes even more significant if other members are copied in as witnesses. Copying in employees in such circumstances contributes to building up both individual and group identity. The copy practice makes it possible for employees to promote themselves to selected individuals in the organization, under the guise of "just informing."

7.7.2 Digital Media Literacy

The fact that the copy practice serves identifiable functions and is used in recurring activities indicates that certain common norms have evolved for the use of email. Digital literacy involves competence in participating in electronically-mediated social activities among multiple participants. It involves competence in using various addressing devices to differentiate among recipients with varying participation statuses. This is used as a conventional system for signalling various degrees of relevance and for inviting various degrees of involvement. Digital media literacy also involves receptive skills, such as interpreting the relevance of a message according to one's status as primary or secondary recipient. It includes the competence to fill in with relevant context, to sort messages with various degrees of relevance, and reply to them accordingly. Digital literacy involves a strategic competence, that is, a competence in using copies in order to achieve different goals. These skills are crucial to managing professional activities in a distributed work group that uses electronic mail as its primary communication tool.

Full reference:

Skovholt, Karianne & Jan Svennevig (2006). Email copies in workplace interaction. *Journal of Computer-Mediated Communication,* 12(1), article 3.
http://jcmc.indiana.edu/vol12/issue1/skovholt.html

CHAPTER 8

Conclusions

The current study has examined literacy practices in workplace emails. Drawing on different discourse analytical methods, the study identified different aspects of email literacy. The main finding is that certain norms and routines have evolved for the use of email. As has been shown, this includes norms with regard to leading a virtual team, norms of responding and norms of sending copies. In this chapter, I first summarize the findings from the four individual studies (chapter 4-7). Then, I discuss the main findings with reference to email literacy. Finally, I present the study's theoretical and empirical contributions to the field of CMC.

8.1 Summary of findings

8.1.1 What does a leader of a virtual team do?

Chapter 4 examined literacy with regard to how leadership is expressed in a virtual team. The main goal was to analyze how leadership is carried out virtually by frequency of contact, exchange pattern and speech act distribution, and to gain practical insight into how work actually gets done in organizational communication.

The first part of the study in chapter 4 involved a quantitative network analysis of the Agenda group's communication pattern. The results from this analysis showed clearly that the leader of the group was the focal point, sending and receiving the majority of email messages.

In addition, another member of the group, the text designer, also seemed to possess a central position in the network, sending and receiving a large number of messages and having reciprocal ties to everybody else in the group. In the graphic representation of the interaction patterns (c.f. 4.4.2), the leader and the text designer appeared to possess positions of an equal level in the network. The central position of the text designer indicated that she was a potential candidate for being an emergent leader. The only difference between the leader's and the text designer's position in the network was that the leader sent messages to the group as a whole and also sent and received most copies, both to individuals and collectively. Thus, the Agenda leader appeared as the administrative "spider" in the network, tying groups of people together and distributing information. The text designer's position as a "star" in the network indicated that she could possess an expert role. However, after the speech act analysis was conducted, it became obvious that these two central persons in the group fulfilled two separate roles. The analysis of their speech act distribution showed that the leader and the text designer performed different actions in their messages. While the appointed leader in general took more initiatives, provided more feedback, regularly invited to meetings and frequently performed directives as questions and requests, the text designer frequently complied with requests and gave answers to task related questions. Most of her compliances involved offering her text-expertise to other members. These results seem to correspond with a study on leadership actions in conversation where the manager performed 93% of the directives in a work community (Vine 2004). Conversely, these results differ from another study which found that requests do not follow corporate hierarchic structures (Kankaanranta 2005b).

The *speech act analysis* identified some institutionalized leader functions in the leader's messages. In addition to performing directives, typical leadership actions were inviting to meetings, distributing tasks and providing frequent feedback, such as acknowledgements ("ok"), thanks, evaluations and appraisals. For virtual leaders, providing frequent receipts and acknowledgements may be a trust-developing device, displaying presence and involvement. According to previous studies, explicitly verbalizing socio-emotional support and enthusiasm may be a device for building trust in virtual teams (Jarvenpaa & Leidner 1999). The analysis of the Agenda leader's messages indicated that the leader seemed to transfer Bell & Kozlowski's (2002) two leadership functions into the virtual environment. On the one hand, by communicating frequently with her team members and providing feedback, by means of sending acknowledgments and appraisals, she contributed to create and enhance trust. These are communicative actions contributing to team development.

On the other hand, by frequently performing requests, informing and inviting to meetings, the Agenda leader also fulfilled the leadership function of performance management (as illustrated in Table x in the next section).

The *network analysis* found evidence of centralization, i.e. that the communication is centralized around the leader and the text designer as the two focal points. In addition, the leader sends many more messages and copies than she receives. This could indicate a hierarchical and centralized network. The speech act analysis concretized and strengthened the impression of a hierarchic structure in Agenda. Providing directives and inviting to meetings may be viewed as control practices in leading a team. However, leading a virtual team where members are institutionally and/or geographically dispersed, might demand a tighter control in order to get things done. This includes both informing team members as well as distributing tasks. A hierarchical structure expressed by centrality and centralization measures can not necessarily be mistaken as authoritative tendencies. Hence, hierarchies should not necessarily be thought of as harmful (c.f. Ahuja & Carley 1998).

The study of the leader's frequency of contact, exchange pattern and speech act distribution provides practical insight into how leadership actually is carried out in a virtual team. The study showed that a virtual team may appear hierarchical, although not necessarily involving authoritative tendencies. The hierarchical structure of the organization is reflected in both network pattern and speech act distribution. Thus, it may provide counter evidence to the previous Internet studies which viewed organizations as more egalitarian and democratic than traditional ones. However, identifying a hierarchical and centralized network is not equal with identifying a hierarchical leader, in the negative sense. Hierarchical tendencies, in the sense of enacting power, may be more salient through a leader's *communication style*, rather than in the frequency of sending messages and producing requests. This was examined more in detail in the next study, i.e. chapter 5.

8.1.2 Leadership communication

Chapter 5 examined how leadership was carried out linguistically through email communication. While chapter 4 primarily involved quantitative methods, analyzing network structures and speech act distributions, this study examined qualitatively the leader's linguistic devices for promoting in-group solidarity and trust, and furthermore, how she positioned herself interactionally as leader in the group. The approach was primarily data driven, involving close-reading the leader's emails in search for linguistic markers (contextualization cues) of formal and informal language use. In order to examine how the leader positioned herself in relation to the group, her requests were analyzed in the frame of Brown & Levinson's politeness theory.

The analysis showed that the Agenda-leader constituted herself linguistically both as an egalitarian and as an authoritative leader. When writing messages to the Agenda-group, she predominantly and typically used an informal and personal style which created a positive image of the group and downgraded her institutional role as their leader. The analysis identified three linguistic devices which contributed to creating a positive image of the group. When addressing the group as a whole, the Agenda-leader frequently used descriptive addressing devices and positively loaded nick-names which complimented the members and invited them to identify themselves with the group. Second, she made use of metaphors which contributed to creating an image of the group. Metaphors such as "blessing journey" and "blessing round" contributed to creating a picture of the team members as main characters, or heroes, in a success-story. In addition, by using metaphors from business ("to sell in Agenda") the leader compared Agenda with a valuable product. Finally, the Agenda leader provided feedback to the group by informing them that they had the attention of top management. To have top management's attention may have signaled that the group's work really made a difference in the company. The Agenda leader's rhetoric might have served to strengthen relations within the team. She presented the group as being enthusiastic about their work and as being valuable for the company, something which may have invited group identification, established involvement, trust and maybe also increased participation. As showed in chapter 4, assigning tasks by making requests was the most frequent speech act in the Agenda leader's messages. The analysis of her requests in the chapter 5 showed, however, that she mitigated the requests by using positive politeness. She presented her requests as a personal matter, as needs and hopes, instead of performing them as an institutional obligation. Instead of going baldly on record and explicitly enacting power, the Agenda-leader downgraded her institutional role in order to develop socio-emotional ties with her subordinates.

While the Agenda leader seemed to position herself as an egalitarian leader in relation to the group, she seemed to possess a more authoritative role towards external colleagues. When writing messages to colleagues outside Agenda she used a more formal style; she went clearly on record and tended to ground her requests either in her institutional role as the leader of Agenda or in directives from her super-ordinates. She similarly made institutional categories relevant when managing conflicts.

The study concluded that the email medium may facilitate both authoritative and egalitarian leadership styles. Even though team members are physically distant, leaders have a great opportunity to request and monitor their members. The technology makes the leader able to be socially present to a greater extent than would be the case in a face-to face situation, in the sense that email conversations may be archived and become persistent and have more pervasive force. Leaders of virtual teams have the opportunity to appear powerful at a distance. However, whether the leader appears as authoritative or egalitarian is revealed in her conversational style, not by the network analysis. The technology provides the leader (and the organization) some affordances and constraints, but it is not the technology alone which determines organizational structures.

The two complementary analyses of leadership communication (chapter 4 and 5) have identified some institutionalized leadership functions in a leader's email communication with her group. According to Bell & Kozlowski (2002), the greatest challenge for leaders of virtual teams is to duplicate two major leadership functions of the virtual team. These two are *the team management function* and *the team development function*. The first function includes the leader's need to "closely monitor any changes in environmental conditions." The second function includes motivating team members to "commit strongly to the overall team effort and need to facilitate team coherence, especially under high intensity conditions." However, the current study showed that leader seemed to attempt to create a positive climate in the group, both by rhetorical devices, such as giving the group a nick-name, and by providing receipts and acknowledgements in minimal responses. These characteristics belong to the team-development function. In addition, as the leadership study in chapter 4 showed, performing requests, informing multiple recipients, sending copies and arranging regular face to face meetings belong to the performance management function. In sum, the leader's speech acts seemed to serve both of the important leader functions. Table (20) summarizes the leadership functions which were identified in the two leadership studies in chapters 4 and 5.

Performance management functions	Team development functions
Frequent initiatives	Frequent responses
Distributing tasks (directives: meeting invitations, requests for information, requests for action)	Acknowledgments, thanks, evaluations, appraisals
Informing (sending informing messages and copies to individuals and multiple recipients)	Creating a positive image (addressing devices, nick names, metaphors, narratives)
Controlling (referring to super-ordinates when requesting out-group partners)	Building socio emotional relations (positive politeness, presupposing common ground and solidarity)

Table 20. Institutionalized leader functions in the Agenda-leader's emails

8.1.3 Response norms in Workplace emails

Chapter 6 examined the implicit norms of responding in workplace emails. Inspired by the methodology of Conversation Analysis, the study analyzed email responses and non-responses compared to what is known about response giving in oral conversation. The dataset was first quantified with regard to the number of responses, non-responses and average response latency. The distribution of responses and non-responses on requests and non-requests showed that 47% of the total number of messages did not receive a response. As much as 34% of the requesting messages did not receive a response. 65% of the non-requesting messages did not receive a response. Another interesting result was that the average response latency was 28.01 hours. Surprisingly, this corresponded with a previous study which found that the average response latency in the Enron email dataset was 28.76 hours (c.f. Kalman et al. 2006). Supporting Kalman et al. (2006), this seemed to indicate that if a response to a message is not created within 24 (28) hours, the probability of a response will be reduced. However, when Kalman et al.'s (2006) rules for turn-allocation in email, states that addressed recipients are <u>obliged</u> to respond, the current study showed that this rule primary concerns questions and requests and in sum identified three general interaction norms:

1. A response is conditionally relevant after questions and requests.

2. Responses to requests for comments and corrections of a proposal are conditionally relevant only when there is something to report. Non-response signals acceptance of the proposal.
3. A response to non-requesting messages is not conditionally relevant, but occurs as acknowledging receipts and repairs.

The first norm had as its point of departure that questions and requests should normatively receive a response. If a message was not responded to, it was followed by reminders from the requesters or by accounts and excuses by the recipients. When messages contained questions, there seemed to be a tolerance for response delay of up to a few days. In requests for action, the tolerance for delay seemed greater, especially if the requested action was elaborate. However, in cases where a request could not be granted immediately, the participants had two possibilities. They either waited until a task could be carried out, or they sent a "placeholder message," i.e. a message that signals compliance and commits to a future granting of the request. The practice of sending of placeholder messages seemed to be developed in order to deal with the potential negative implications of silence derived from conversational interaction. These findings fitted with Taylor & Tang's (2003) interviews, which revealed that participants often send short responses to state when they intended to provide the full response.

The second norm was constituted by a class of exceptions to the first norm of responding to requests. When email messages contained invitations to correct or comment on proposals, they performed two actions simultaneously: they presented information to the addressee and simultaneously requested comments or corrections to the proposal. In these cases, a response was conditionally relevant only if the recipients disapproved, disagreed or had corrections to make. This rule did not correspond with traditional norms of adjacency pairs, but one may compare this practice with the norms of workplace-meetings (Aβmuss & Svennevig 2008). In these cases, silence means that one has nothing to report and it is not treated as problematic. Rather, it may convey acceptance and agreement. These results corresponded to the findings of Murray (1991) and Condon & Cech (1996).

The third norm showed that non-requesting email messages, e.g. sending attachments, FYI-messages and in-copied messages did not require a response. Neither did first pair parts that did not request information or action beyond a simple acknowledgement or thanks, such as congratulations and compliments. The lack of response in these instances was not treated as problematic or deviant. This pattern did not correspond with traditional adjacency pair norms in conversation, where congratulations and compliments typically receive thanks.

Furthermore, a category of email messages that was typically not followed by a response was informing messages to multiple recipients. This result corresponded to Kankaanranta's (2005a, 2005b) identification of the 'Noticeboard' genre, which represents messages that do not trigger a response.

Even if purely informing messages did not require a response, the technology does make a response possible so that an informing message may turn into a dialogue. Interestingly, non-requesting messages did not make a response conditionally relevant, but were occasionally responded to by minimal acknowledgments and receipts. However, these minimal responses occurred far more seldom than in conversation. The main class of minimal responses involved assessments and other forms of "positive feedback" from superordinates. This finding may indicate that minimal responses in email interaction may be a typical leadership device and represent one aspect of a leader's email literacy. Furthermore, minimal responses typically occurred when there was just a small time lapse between initiating and responding messages.

The observations in this study have modified the description of the two-part structure of email (COM) dialogue presented by Severinson Eklundh (1986). Whereas Severinson Eklundh's (1986) COM-dialogues revealed a two-part structure and lacked a terminating and evaluating third-move, the current study showed that participants to some extent produced minimal responses in third position. One explanation could be that the dialogue genre has developed significantly and become more common since email was introduced as a working tool.

In email interaction, participants draw on various contextual cues to interpret an absent or delayed response. In addition to the three response norms, the analysis of reminders and accounts showed that the participants orient to the institutional context and the a-synchronicity of the medium when they follow up on an absent response. Their reminders and accounts construed the problem source as systemic (e.g. recipient is on vacation or overloaded with email) rather than interpersonally occasioned (as a sign of disagreement or a potential conflict). The construal of reminders and accounts thus indicated that missing responses are treated differently and have other functions in email interaction than silence in face-to-face conversation. Table (21) below summarizes the norms of responding in email compared to those in oral conversation. The table shows that some of the norms identified in email interaction do not correspond with the norms of responding in oral conversation. The study concludes that alternative norms for email interaction have been developed.

Similarities with conversation	Differences from conversation
Questions and requests require a response	Response is typically given within 28 hours
Non-requests may receive response	Requests may receive placeholder responses
	Requests for comments and corrections only receive response when there is something to report
	Compliments do not typically receive a response
	Non-requests do not need response
	A delayed and missing response is not primarily a sign of disagreement.

Table 21. The norms of responding in email interaction compared to norms of responding in oral conversation

8.1.4 Email copies in workplace interaction

Chapter 7 examined the practice of sending email copies in group collaboration. It studied the audience design of messages with multiple recipients and analyzed explicit and implicit addressing devices used to appoint recipients as primary and secondary participants in the interaction. Additionally, the study analyzed the communicative functions of copying in recipients. The study showed that participants in email communication designed their messages with side participants in mind, and that they used copies strategically to fulfill work-related tasks and to manage social relationships. By differentiating between primary and secondary recipients, senders assigned their colleagues various recipient roles and created a virtual communication space where the in-copied recipients were more or less explicitly invited to respond. Senders addressed their recipients *explicitly*, by adding them to the 'To' and 'Copy' fields, or by using salutations, personal pronouns, and vocatives in the message itself. They also addressed them implicitly, by producing lateral, indirect speech acts and by tailoring their messages to the in-copied recipients' background knowledge. When copied in, recipients were given the possibility to contribute their opinions or suggestions.

The employees in Agenda accomplished a great deal of their work tasks through email interaction. As a consequence of the electronic network, email traffic is pervasive and employees are inundated with emails of varying relevance. In this study, the grading of recipient roles and addressing devices was considered as a method the employees had adopted to manage the flow of information. By indicating variable participant statuses, the sender indicated the relevance of a message and invited various degrees of contribution.

The copy function is an effective tool for building a common pool of information and inviting further contributions to it. The employees sent copies in order to distribute documents, to update their colleagues about ongoing activities, and to define rules and procedures for their work. In addition, they used copies to establish networks of collaboration, informing customers and colleagues of who will be involved in a given task. Copies were also used for building alliances and personal identity within the organization. Copying in colleagues, and especially a superordinate, from one’s own department is a practice for giving a message a stronger institutional anchoring and thus for strengthening one’s authority as a speaker. Side participants may also be invoked as “witnesses” to the exchange, securing that the communication conforms to norms of propriety and seriousness. The analysis made visible the local practices of copying in colleagues in workplace interaction. The findings, summarized in Table (22), suggested that copying in recipients serves informative, interactive, and interpersonal functions.

1. Informative function: Establish and update information pool
a) Distributing reformulated letters (attachments)
b) Distributing information about ongoing projects
c) Defining general rules and procedures

2. Interactive function: Facilitate participation - reframe participant structure
a) Lateral speech acts
b) Indirect appeals for approval or collaboration in decision making
c) Reframing the participant structure within a network of collaboration

3. Interpersonal function: Build up networks, group identities, and alliances
a) Copying in superordinate to back up reasoning
b) Copying in superordinate to back up reminders
c) Copying in superordinate to seek support in emerging conflicts

Table 22. Communicative functions of copying in recipients

8.2 Email literacy – discussion of the main findings

The study of email literacy has primarily shown that participants are oriented towards a common set of norms with regard to addressing multiple recipients, copying in recipients, and responding/not responding. The study has examined two main aspects of email literacy, *leadership practices* in a virtual team (chapter 4 and 5) and general *interaction norms* for the use of email (chapter 6 and 7). The following sections discuss different aspects of email literacy with regard to interaction norms and leadership and end by discussing some communication pitfalls which may turn up as a result of the email medium's hybrid character.

8.2.1 Interaction norms

The current study has emphasized the reflexive relation between technology, social interaction and the development of interactional norms. The norms identified here are seen as having emerged reflexively out of pre-existing interactional practices (such as conversation and business correspondence) and from the affordances which the technology provides (such as the possibility of providing quick responses, address multiple recipients, using the CC-function in the email heading, etc.). Some norms draw upon already established norms, while others have emerged in the email medium. By comparing patterns of email interaction with established patterns of communication from conversational interaction, this study showed that the participants have established new literacy practices and norms of email interaction. These involve norms for response giving, which were examined in chapter 6, and norms for copying in recipients, examined in chapter 7.

First, email literacy involves knowing what types of messages that require and do not require response. The study in chapter 6 showed that response giving in email interaction follows an intricate system. It includes identifying different actions through email genres, and responding or not responding to them accordingly. Types of responses may also be associated with role enactment. This became especially salient in chapter 5, which showed that the Agenda-leader's minimal responses signaled trust and commitment and were identified as a team development function.

Second, email literacy involves practical competence in participating in electronically-mediated social activities among multiple participants. Using email in workplace interaction involves interacting with multiple and often unknown recipients. This is often achieved by forwarding or sending copies. Copying in recipients involves competence in using various addressing devices to differentiate among recipients with varying participation statuses. As was shown in chapter 7, different addressing devices were used as a conventional system for signaling various degrees of relevance and for inviting various degrees of involvement. Email literacy also involves receptive skills, such as interpreting the relevance of the message according to one's status as primary or secondary recipient. It includes the competence to fill in with relevant context, to sort messages with various degrees of relevance, and reply to them accordingly. Moreover, email literacy involves using copies in order to achieve various goals. In sum, email literacy involves being conscious of the many functions a copy may serve, being aware of the ambiguous implications it may have, and last but not least, being conscious of and making explicit the relevance of the copy to the recipients.

8.2.2 Leadership

Email literacy involves using email in order to lead a virtual team. As pointed out in the review, theoretical approaches to virtual leadership have emphasized that it may be difficult to establish norms and coherence in virtual teams, and that when group members are dispersed, it is more difficult to create relationships and establish a shared common ground. Chapter 4 and 5 identified how a leader's communicative practices were performed linguistically to meet these challenges. The two studies showed that the leader's literacy practices involved, on the one hand, both team management functions, such as informing and controlling (by addressing multiple recipients and sending copies), and distributing tasks through frequent initiatives and requests. On the other hand it involved team development functions such as building socio-emotional relations, for instance, by providing acknowledging responses, using positive politeness, and inviting team members to identify with a positive image of the group. However, while the leader's rhetoric clearly constructs an image of the group as well performing, closely connected and coherent, there is no evidence that this picture corresponded with the group members' actual perceptions of belonging and connectedness with the group. This would have been an interesting question to examine further, but is beyond the scope and time limit of this thesis.

The study of leadership practices in the Agenda group's messages showed an interesting tension between the number of speech acts the leader performed in order to gain compliance, and the methods the leader used to linguistically position herself through these speech acts. Chapter 4 showed that the Agenda leader exercised control practices by requesting, inviting to meetings, reminding and informing. However, chapter 5 showed that these speech acts were performed by using different forms of positive politeness. The Agenda-leader's methods of performing requests and creating socio-emotional relations within the group contributed to back grounding her institutional role and foregrounding a personal and more egalitarian leadership style. This result supports Vine (2004) and Mullany's (2004) "consensus view" (Vine 2004:167) of power which was identified in New Zealand workplaces. The New Zealand-project found that leaders used humor and positive politeness when trying to gain compliance from their subordinates. This contributed to minimizing, or hiding, the power differences in the interactions between individuals of different status, between leaders and their subordinates. Kankaanranta's (2005) study, however, showed contradictory results. In her study, Finnish business writers favored direct strategies for performing requests, while Swedes seemed to favor indirect strategies (Kankaanranta 2005b:398). Kankaanranta (2005b) relates this difference to a 'democratic' perception of Swedish culture as opposed to a more hierarchical Finnish culture. Even if the current study alone is not sufficient to make generalizations, it may contribute to creating a picture of Scandinavian leadership style as typically egalitarian and democratic, a style which hides existing power differences behind a veil of positive politeness and interpersonal needs. The current study has practically shown how this leadership style is performed through a digital medium.

Another aspect of email literacy which seems to involve leaders to a greater extent than subordinates is the practice of copying in recipients. The quantifications made in chapter 4 showed that the greatest number of copies was sent to persons ranked higher in the organizational hierarchy, such as the leader and information manager. These are the ones who simultaneously receive the most and send the most copies. These findings may imply that some practices of sending copies may be associated with power enactment in organizations. Chapter 7, which examined email copies qualitatively, found that copies might function as a device for surveillance, for reporting and controlling workplace routines. Sending a copy may make it easier for participants to appeal to superordinates to back their claims in cases of conflict and thereby to stress the importance of institutional status rather than the force of the argument. As such, some practices of copying others in can serve to reinforce hierarchical structures within the organization and threaten an open and democratic dialogue.

However, chapter 7 also identified how the practice of sending copies represented a substantial ingredient of all the group members' email literacy. Employees use copies to achieve routine collaboration in their daily work tasks, share knowledge, prompt feedback, and seek support. They thereby establish ad hoc networks across physical and institutional boundaries. This contributes to creating new patterns of interaction and to erasing traditional hierarchical structures and established lines of information flow. From this perspective, copying in recipients may lead to alternative, emergent structures within the organization and thereby have a democratizing effect.

In conclusion, while previous organizational studies on CMC have searched for social impacts of the use of CMC in organizations and viewed email as either making organizations more democratic or hierarchical, the current study has shown that internal email interaction in organizations have the potential to render communication both more democratic and more hierarchical. It is the various contexts and how members of different institutional settings actually use email which decides its effect upon organizational structures.

8.2.3 Communication pitfalls

In this study, we have seen how email is used both in informal conversation and as an institutional document. Email interaction has taken up elements of use from traditional written correspondence as well as from oral conversation. On the one hand, email has replaced fax and much of the written correspondence in work life. The copy practice is one example. On the other hand email has to some extent replaced and supplemented face-to-face conversations and telephone talk. The radical difference is, however, that with the launch of email, much of the employees' informal (oral) conversation and formal communicative practices have converged in one written form – the email message. Before email there was a clearer divide between written and oral practices. In email interaction, even informal conversations may be formalized when sent to in-copied recipients or forwarded as documentation.

This hybrid and semi-formal character of the email medium clearly has some communicational pitfalls. An email exchange, which in the original context appears as an informal conversation, may be stored in the archive, re-contextualized and used as a written document in a formal setting. In fact, theoretically every message may be forwarded, archived and come out of the original sender's control. This leads to some sort of social control at the workplace and represents a source of uncertainty in email interaction. Office workers run the risk of being personally accountable for every act they perform through the email medium. Unless ethical issues concerning the copy practice are discussed in the individual workplaces, issues of personal accountability will continue to be "constant and pressing," as Brown & Lightfoot (2002:225) formulated it. In this regard, the most important aspect of email literacy involves being conscious about this complex relation between formal and informal settings in the hybrid medium of email and thoughtfully choosing medium and style thereafter.

8.3 Contributions

The four articles that are presented in this thesis address email research within CMC, linguistics and sociology, and provide contributions within each of these fields. However, the main contribution in the thesis as a whole is the presentation of different aspects of email literacy. In the final section of this thesis, I first present my theoretical/methodological contributions, and then I summarize my empirical contribution.

8.3.1 Theoretical and methodological contributions

The current study has analyzed emails from a dialogical perspective, drawing on different linguistic theories. As such, the study has contributed a theoretically motivated analytical framework which has not previously been applied to email research. In addition, the analyses have been supplemented by quantitative descriptions of the data, such as the quantification of the message exchanges and the sociometric analysis. By combining different methods the current study has, in general, contributed to bringing out different aspects of email literacy. More particularly, the combination of social network analysis with speech act analysis had an interesting outcome. Whereas the network structure of the Agenda group indicated a centralized and hierarchical network with two focal points (the formal leader and the text designer), the complementing qualitative study showed, firstly, that these members had quite different institutional roles, and secondly that the formal leader appeared as an egalitarian, and not authoritative, leader. This result suggests that combining SNA with qualitative studies may provide useful supplementing information, and even contradicting results. Combining different methods in practical analyses of email interaction seemed to be a fruitful approach in this thesis. It contributed to showing different aspects of email use, from the local and sequential aspects of email interaction, to the more global aspects of networks patterns and leadership functions.

In addition, this thesis has examined email literacy as interactional norms. This has not previously been done. As such, this dissertation may represent a contribution to the field of literacy studies, with the strength of demonstrating how an analysis of literacy may be carried out practically.

8.3.2 Empirical contributions

One weakness in the previous studies on email is the lack of empirical data. Much email research, especially within organizational studies, provides results based on hypothetical discussions or laboratory experiments. The strength of the current study is that it contributes findings based on analyses of naturally occurring email messages. Furthermore, where previous research on email has been quantitatively oriented or solely based on interview situations, the current study contributes by mapping out email literacy as it actually emerges from the data.

Another weakness with previous research on email is the search for generalizing truths about the impact of technology on communication. Within linguistic studies this has been manifested as a search for the general characteristics of email language, without considering the contextual influences on language use. The current study contributes a more nuanced picture of the characteristics of email, discussing email interaction in close connection with one specific institutional context, i.e. a distributed group in a large Telecom company. Where previous studies have viewed virtual organizations as more egalitarian and democratic than traditional organizations, the current study has empirically shown that interaction in virtual teams may reflect hierarchical structures, and simultaneously involve both egalitarian and authoritative communicative styles.

The main contribution in the current study is the presentation of different aspects of email literacy. Whereas some email researchers have claimed that the email genre is still under maturation and that its style and content are as diverse as the people using it (Mulholland 1999, Baron 1998, Hård af Segerstad 2000), the current study has conversely shown that specific common norms have evolved for the use of email.

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