Corporate Microblogging: A Case Study on How Yammer Affects Knowledge Sharing in a Multinational Consultancy Company

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Daniel Thomas Ingebricson
Abstract

This thesis explores how the company-closed microblogging service Yammer affects internal knowledge sharing in Capgemini, a large, multinational consultancy company. The corporate microblog is a character-limited blog technology where participants in principle can connect to and exchange information with colleagues from all around the world. At present time, the phenomenon that is corporate microblogging has received ample academic attention, but it does seem that the technology has a considerable positive impact on knowledge-sharing activities. Companies using Yammer have reported that they experience increased benefits in terms of innovation, efficiency, increased inter-unit collaboration and improved, virtual community building. This thesis explored how these benefits came about by collecting data with a pilot survey through conducting in-depth interviews with active Yammer users. The results suggest that Yammer facilitates the creation of new and more efficient communication patterns, giving its users easier access to fellow colleagues. As a result of this new channel its users solves problems faster and (sometimes better), get fast feedback on ideas, and are able to locate and using old projects as references, to sell in new projects. Yammer was also identified as a tool that could be used as a substitute for the informal water-cooler conversations that was not available for people working from a customer location. The corporate microblog does however struggle with low uptake among the employees in Capgemini, and people using it do have conflicting perceptions as to whether the tool only should be considered as a productivity utility, or of it could also be used for socialization purposes.
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1. Introduction

This thesis explores how the company-closed microblogging service Yammer affects internal knowledge sharing in Capgemini, a large, multinational consultancy company. The corporate microblog is a character-limited blog technology where participants in principle can connect to and exchange information with colleagues from all around the world. By examining the role this relatively new technology plays in organizational communication and what effect it has on knowledge sharing, the thesis gives an introductory contribution to an academic understanding of the tool in specific, and in general it also contributes to the growing body of research looking at the relationship between organizational knowledge sharing and computer mediated communication technologies (CMC).

The concept of organizational knowledge can be defined as “the collective experience accumulated through systems, routines and activities of sharing across the organization” (Johnson, Scholes, & Whittington, 2008, p. 107). The process of knowledge sharing itself refers to the exchange of information or experiences (Connelly & Kelloway, 2003). How knowledge flows between the workers in organizations in general, and in multinational companies (MNCs) in particular, has been given considerable academic attention in many fields, ranging from organization theory and strategic management to evolutionary economics and international business strategy (Gupta & Govindarajan, 2000). It is not without reason that MNCs have received considerable attention in this area. As pointed out by Dieter & Kim (2002), large, multinational organizations typically possess heterogeneous and geographically distributed knowledge bases. And in order for them to remain competitive and innovative, they need to continuously integrate and recombine internal and external knowledge (Nonaka & Takeuchi, 1995). Large multi-unit companies do however have an advantage compared with their single-unit or one-country competitors; today, it is widely accepted that the MNCs
exists “because of their ability to transfer and exploit knowledge more effectively and efficiently in the intra-corporate context than through external market mechanisms” (Gupta & Govindarajan, 2000, p. 1). Nevertheless, these processes do not occur automatically. In order to share and recombine knowledge, the employees require diverse and multidirectional information flows (Allen, 1995). Moreover, as the organizations develop into more complex and larger entities, sharing knowledge and experiences becomes more difficult.

Paralleling this development, there have emerged new information systems that provide novel and sophisticated ways of steering the flow of information (Johnson, Scholes, & Whittington, 2008). The development and implementation of – relatively speaking – new CMC technologies has brought with it many important changes in terms of access to information and social interaction in organizations. At the end of the last century, the advent of networked communication in general, and electronic mail in specific, made it possible for information to disperse more fluently among people (Garton & Wellman, 1995).

Communities of practice, that is, groups of individuals with a common purpose who share some background, language or experience, have been found to provide an excellent setting for sharing knowledge and finding novel solutions to problems. (Hildreth, Kimble, & Wright, 1998). Increased internet availability has lead to a proliferation of virtual communities of practice in which its members can both collaborate and share knowledge with colleagues, regardless of geographical boundaries (Koh & Kim, 2004). Interacting in this setting has been found to increase learning and innovation (Edmondson, 1999). Nevertheless, even if networked communication technologies virtually bring people together from all over the world, some argue that knowledge sharing among them has not lived up to expectation. Hsua, Ju & Changa (2007) argue that this in part has been caused by the fact that people are reluctant to share their knowledge because they consider it to valuable and important, while organizations at the same time to a large extent only emphasizes the technology, and not the
people that use it. Moreover, in the wake of rapid advances made in information and communication technologies, the challenge of cognitive information overload has also become a major obstacle for successfully finding and sharing information (Edmunds & Morris, 2000). Additionally, when faced with the problem of information overload in an information system, the users are likely to end active participation as the mass of interaction increases (Jones, Ravid, & Rafaeli, 2004).

Fast forward to today. In a setting where more and more organizations implement participatory Enterprise 2.0 information sharing and content-creating technologies, the potential for harnessing the power of intra-organizational knowledge sharing could be further increased. But so could the problems of information overload. Furthermore, the users’ reluctance to share knowledge may still inhibit the sharing of knowledge, and they may also withdraw from communication activities as the information production grows.

The term Enterprise 2.0 corresponds to the more public concept of Web 2.0 technologies, a term coined by O’Reilly in 2004. In short, the concept signified an improved version of the web. In the world of web 2.0, content creation would be user driven and as such be democratized (Encyclopædia Britannica Online, 2010). Today, examples of the democracy of content creation can be seen in everything from personal weblogs and Wikipedia to videos on YouTube. Enterprise 2.0 symbolizes the implementation of Web 2.0 tools by organizations (Levy, 2009).

This thesis devotes its attention to the implementation of an Enterprise 2.0 technology that has the potential to facilitate knowledge sharing in many new ways, both in terms of direction and quantity. The corporate microblog, a social-network enhanced communication technology which in principle can allow its users to passively and actively exchange short snippets of information with other co-workers regardless of geographical boundaries, but
which at the same time allow them to filter the information, is less than four years old. Nevertheless, many corporations have started using the tool for communication purposes. Yammer, for instance, can boast that more than 50,000 companies use their microblogging service, and it seems that microblogging within the corporation does bring with it important advantages. Some of the multinational companies (MNCs) using Yammer have reported that they experience increased benefits in terms of innovation, efficiency and increased inter-unit collaboration. (New York Times, 2010; Aftenposten, 2009). Others have argued that the tool fosters community building by connecting staff who works virtually or in different offices (Bozarth, 2010).

Based on these reports, it can be argued that the early adopters of corporate microblogs, by increasing efficiency, innovation and inter-unit collaboration, can achieve a competitive advantage over their opponents. However, the corporate microblog has received scarce academic attention, and as such there is a gap in the literature that needs to be addressed. Today, we know very little about the overall effects that communication technology may have on the corporations using it, for better or for worse. It is therefore of crucial managerial and academic interest and importance to build a better understanding of the effects that microblogging has on corporations, both on a general level, but also in terms of knowledge sharing. As such, it is the goal of this thesis to give an introductory contribution to this understanding.

1.1 Research Question

The central research question posed in this thesis is:

**Does corporate microblogging communication affect knowledge sharing in a large, multinational company? And if so how? And what potentials and challenges for organizational communication and knowledge sharing are associated with its use?**
Here, knowledge sharing is defined as involving two important constructs: the medium of exchange, and the people using it. The medium itself only provides access to information. For knowledge to be shared, information or experiences have to be exchanged (Connelly & Kelloway, 2003). Understanding how knowledge is exchanged through the microblog therefore requires understanding 1) the characteristics of the medium, and 2) how it is used. By gaining more insight on these two properties, I hope to identify the ways in which knowledge sharing is affected by microblogging today and develop an introductory understanding of current and future potentials and challenges associated with the technology. This could in turn improve knowledge sharing in companies, because they may use this information to make the most of the corporate microblogging technology. From a purely academic point of view, the information would also give an introductory contribution to the organizational use of democratized content-creating technologies.

The thesis has its primary focus on the underlying mechanisms and usage areas of the microblog. Therefore, a qualitative case study approach has been chosen. A detailed explanation of the rational for this choice will be presented in the research design chapter.

1.2 Structure of the thesis

The thesis has the following structure: In the next chapter, a two-leafed literature review covers 1) the characteristics of the microblog 2) Research related to corporate use of blogging and microblogging technologies. The research design, including a discussion of the thesis reliability, validity and transferability, is covered in chapter three. In chapter four, an analysis and a discussion of the findings are presented.

2. Literature review

2.1 General presentation of microblogging
The following account is primarily based on available research on the public microblog service Twitter. In addition to giving some understanding of the technology in terms of the type of communicative activities it may foster, it also serves as an introduction to microblogs. Moreover, the account also covers some ground on the communication pattern that has emerged among the public microblog users. Furthermore, a detailed description of the technological characteristics of Yammer is also presented.

Computer-mediated communication (CMC) is here used to denote a collective term for different types of digital communication, including, chat-rooms, weblogs, instant messaging (IM), SMS, email, social networks and microblogs. All of these communication channels have in common the strengths that are associated with digital texts. Digital texts are hybrids of the spoken word and printed, analog texts, and offer many different degrees of up-to-date contact, ranging from synchronous, meaning that interaction takes place is real time, to inherently asynchronous, which denotes a delay in message interaction (Engebretsen, 2000).

The digital text-communication-technology that is the microblog can be seen as a type of hybrid medium that combines traits from a wide set of different communication technologies. First of all, it is a social network technology that is similar to Facebook to some extent; to sign on, its users creates personal profiles, uploads a picture and connect with other people. On a general level the microblog is a form of blogging that typically has a much smaller content than a traditional weblog – or blog – in both actual size and aggregate file size; an entry could consist of pure text, an image, an embedded video or a link, and the microbloggers post about topics ranging from status updates about what they are doing, to more thematic entries (Wikipedia, 2010). These types of blogs resemble SMS (text communication component of phone, web or mobile communication systems) in that they are
usually restricted to 140-160 characters. They are akin to Instant Messaging applications (IM) in that the user can negotiate availability – that is, she can herself choose whom she will get updates from – and also have some traits in common with the traditional weblog in that the posts do not have any specific recipient; instead the individual user has to be active in order to receive updates. The users can receive these updates from a variety of platforms, ranging from web-browsers to smart-phone and desktop applications, text messages and email; they can also send messages from these platforms. What is more, on the most basic level, the microblogs also share traits with email conversations; both are mediums through which digital messages are sent and received. Conversely, the microblog has properties that are considerably different from other types of communication technologies. Twitter, a public microblog service launched in 2006 that currently has more than 75 million users, may serve as an example to illustrate some key differences.

While the potential readers of messages posted on Twitter and text written in traditional weblogs are required to be active, the degree and type of activeness of the potential blog readers are quite different. A reader of a weblog has to locate the blog entry he or she wants to read, whereas a microblog reader subscribes, or follows, a person or a theme that he or she wants to receive updates from or about. It could therefore be argued that less action is required on the reader’s behalf in order to access information posted by a microblogger. That, however, is a truth with modifications. A weblog reader can use Real Simple Syndication (RSS) feeds to subscribe to new content posted by a traditional weblogger (or for that sake, subscribe to any content on the web). But on Twitter, and other microblog applications, the subscription feature is integrated into the application. In addition, the user can, as with any database, enter search queries and locate older posts. This subscription feature has been found to have a strong effect on the communication pattern in the public microblog.
In Facebook, the popular social application that connects people to their friends, acquaintances and whomever they see worthy of befriending virtually (in many cases that is everyone), the relationship between the users is reciprocal. If user A befriends user B, user B automatically befriends user A. Twitter, however, is non-reciprocal. User A can befriend (follow) user B, but user B does not befriend user A, unless B chooses to do so. The non-reciprocity feature is also ingrained in the hashtags – # – in Twitter. If a poster in Twitter writes a post about a certain theme, she can signal this by ending the post with the hash symbol (#) followed by the relevant theme. For instance, if the poster writes something about the ACM Conference on Human Factors in Computer Systems 2010 (CHI 2010), she can indicate this by ending the post with #CHI2010. Other Twitter users who are interested in the conference can then subscribe to the hashtag; every time a tweet ending with #CHI2010 is posted, the subscriber will be notified and see the message on his Twitter feed or wall, which is a projection of the posts written by the people and on the themes the user, follows. A user can access his news feed, and write posts in many ways, including web browsers, text messages, and smart-phone and desktop applications.

As a consequence of the non-reciprocal follower feature, three vastly different user types have emerged in the public microblog medium. Based on information gathered from close to 70,000 Twitter users, Krishnamurthy et al., (Krishnamurthy, Gill, & Arlitt, 2008) identified three broad groups based on the number of users each user follows and the number of users they are followed by. These are broadcasters, acquaintances and miscreants/evangelists. Broadcasters are characterized as having a larger number of followees than they themselves are following. The broadcasters are typically online radio stations that write posts on the current song they are playing, and media outlets generating headlines, such as the New York Times and BBC. This group is also the one that produces the most posts. The acquaintances are users that tend to exhibit reciprocity in their relationships – the number
of users followed and the users’ followees are equally distributed – which is typical in online social networks. Finally, the miscreants or evangelists are users who follow a much larger number people than they have followers. Miscreants are typically spammers or stalkers; evangelists are people who contact everyone they can in the hope that someone will follow them. Needless to say, these user types differ greatly in their posting activities.

Research on the communication patterns in Twitter reveals that a relatively small group of users are responsible for a large majority of the posts, an observation that suggest that Twitter is not so much an application that is used for equal two-way communication. In examining a random sample of 300,000 Twitter users in May 2009, Heil & Piskorski (2009) found that the top ten per cent of prolific users accounted for over 90 per cent of the tweets, i.e. posts. Twitter could therefore be seen as resembling a one-way publishing service more than a two-way peer-to-peer network. Indeed, argue Heil and Piskorsi (2009), the distribution patterns in Twitter is more concentrated than in Wikipedia, an online collaborative encyclopedia project that clearly is not a communication tool. This pattern could be caused by the public nature of Twitter. In an open market there will be firms who have economical interest in sharing information. But there are arguably other users out there are not included in the Twitter categorization outlined above. If the radiostations and news companies were removed from the equation, it is very likely that one would be able to identify another type of broadcasters: people – not companies – who post messages on topics that other users find interesting. Krisnamurthy et al. (2008) bulk these people together with the companies and radiostations – probably because they are hard to spot in Twitter. They may, however, emerge more clearly in microblogging applications closed off to the inanimate broadcasters. Whether this is the case with corporate microblogging, will be discussed in the literature review on (micro) blogging in the corporation. Before this I will introduce more clearly the properties of Yammer by comparing it with Twitter.
2.2.1 Introducing Yammer
Following the popularity of the public microblog, some companies started using Twitter for internal communication, albeit in a public context (see for example Zhao & Rosson, 2009). Offering to move the microblog correspondence from the public sphere, corporate microblog applications have been developed. These corporate microblogs by default allow only for co-worker communication; users can only access conversations and people who share the same email root; for example john.doe@company.com. The most prominent among the corporate microblogs – Yammer, SocialCast, Jive and Cubetree – have been operating for less than four years, and have become increasingly popular in the corporate world.

Launched in 2007, and currently being used by more than 50,000 companies, Yammer is a corporate microblog application that, by default, is only open for co-worker communication. As with Twitter, the Yammer service can be accessed from multiple devices such as web browsers, desktop and smart phone applications, and via text messages. But unlike Twitter, a company using Yammer can, for a monthly paid user plan, host the communication data within its firewall. If the company does not wish to host the data itself, Yammer host the data for it.

If microblogs in general can bee seen as hybrid mediums, so can Yammer as well. This may to some extent lead the users to struggle with learning how to use it. Indeed, in an unpublished study using the IT acceptance theory framework on Yammer, “still learning to use the system” was an important reason among three of four user groups for not posting more messages (Zhang, Qu, & Hansen, 2010). In Yammer, colleagues can create profiles in which they are prompted to upload a picture of themselves, name their work function and shortly describe what they are currently working on. A similar profile set-up is also included in Twitter, but there the users are asked to tweet an answer to the question “what are you doing?” After the Yammer profile has been configured, the users can converse in open and
closed groups and through private, instant messages. A Yammer user can also write posts on his own profile page, allowing the people who follow him to see the update. Furthermore, it is also possible to chat with people outside the company network through a service called “Community” – a feature that will not be granted anymore attention in this thesis. Likewise, Yammer supports filesharing and focus features such as “likes”; if a user likes a message posted by a fellow Yammerer, she can signal this by clicking on a like button beneath the message, automatically reposting the message to her followers. This feature enables popular content to quickly spread throughout to the user network. Moreover, as on Twitter, the relationship between the different users on Yammer is not reciprocal. But where Twitter users can only follow themes or persons, Yammer users can also follow content and debate in groups. These groups can be either open for everyone in the company’s Yammer society, or closed off, so that only its members can see the content. In the same way as on Twitter, Yammer also supports searching for older posts through keyword searches.

The character limitation in Twitter is not a feature that is present in Yammer. Given Yammer’s format, however, the user should feel inclined to post short messages. If a message exceeds a set number of characters, the entire message will not be shown, and users who wish to read the rest of it have to click a link to expand the message. A random sample of 300 messages (out of a total of 3391) posted by users in the Yammer-company XB (Zhang, Qu, Cody, & Wu, 2010), strengthens the assumption that the non-formal character limitation works. The average length of the messages was 173 characters; the standard deviation was 171. Another important difference between Yammer and Twitter is that the former allows its users to see conversations in both threaded mode and in reverse chronological order, while the latter only displays conversations in reverse chronological order, a format that makes it hard to follow conversations.
2.2.2 Characteristics of Yammer
To sum up, Yammer is a hybrid medium that combines traits from many communication technologies, ranging from SMS, IM, email, and traditional weblogs. As such it allows for many types of communicative activities. The Yammer users can communicate with colleagues synchronously and asynchronously, in open and closed groups, with people from near and far via a various range of Yammer applications. Oxymoronically enough, they can do this without having to worry about the character limitation of the microblog. In addition, they can share files, vote on posts through likes, and even communicate with people outside the company through the community service – because my main focus is on internal communication, the community feature will not be given any more attention. Furthermore, the people using Yammer can themselves choose whom to receive updates from through various subscription features, putting the information worker in the driving seat, so to speak.

2.3 Related works and potential outcomes
Little information is available with respect to how people use the microblog in a corporate setting. A small set of relevant exploratory studies has been carried out, however. Below follows a briefing of a selection exploratory studies that cover the use, advantages and challenges associated with the organizational implementation of internal blogging, Twitter, and Yammer.

2.3.1 Blogging in the Corporation
With the goal of shedding some light on why and how individuals engage in communication on internal corporate weblogs and what results individuals and the corporation realize from them, Jackson, Yates and Orlikowski (2007) performed a preliminary exploration of blogging within Mega (a pseudonym), a large, global IT company. Based on an analysis of usage statistics, interviews and an anonymous web-survey, they found that users experienced both informational and social advantages when using the corporation’s blog. With respect to social
advantages, users reported benefits such as building community, communicating, collaborating, gaining company pulse, networking, developing reputation and building their careers. In terms of informational benefits, the respondents highlighted factors such as getting/sharing information, journaling, problem solving, and getting/giving feedback. However, not all users experienced the same level and types of benefits. Users were divided into three type categories: heavy (50 or more posts), medium (five to 20 posts and eight or more comments) and low users (less than two posts). Based on this categorization, the authors of the study found that heavy users experienced both social and informational benefits, while low users received more informational benefits than they expected. Moreover, in the group of medium users, which reported experiencing both social and informational benefits, the social advantages dominated over the informational benefits.

The one-to-many communication pattern identified in Twitter (Heil & Piskorski, 2009) is also present in Mega’s blog site. The report, which divided knowledge sharing into two posting activities, weblog entries (new weblogs) and comments to weblogs, found that one percent of the 20,000 registered users accounted for 42 percent of all weblog entries and 59 percent of all comments. This may indicate that there are some barriers that have to be overcome if more people are to contribute with content. Although the Mega study did not include a detailed analysis of costs and barriers to adapting and using the technology, the interviews gave some insight into the characteristics of some of them. Most respondents noted that lack of time was an important reason for not contributing more. People also reported that if they were to write comments or blog entries, they wanted them to be constructive and useful. When posting a comment, one respondent argued, you are also obliged to come back to follow up the follow-up comments.
Even though only a small number of users actively contributed to the blog site, the authors of the Mega study do see internal blogging as being valuable for the company, also in terms of dispersing information to the employees that did not use the internal blog at all. Regardless of user segment, but most clearly present among low users, all users appeared to read other’s blogs more often than they updated their own. This pattern, argue Jackson, Yates and Orlikowski (2007), indicates that benefits from the system transcends the online community, making them accessible to members of offline communities as well. Shortly put, the offline-transcending argument can be summarized with the following chain of reasoning: Groups of people who only use the medium to locate information without contributing with content can be placed in the collective term “lurkers.” A considerable number of the people that fall into the lurker category have been found to have strong and wide influences outside the online community. And these users, in adopting information gained in the online community to their daily work activities, may diffuse online information to the non-users (for a more elaborate discussion of the lurkes, see Perkins & Newman, 1996; Holeton, 1997; and Takahashi, Fujimoto, & Yamasaki, 2003).

The lurker argument notwithstanding, having too few contributors does to a considerable extent decrease the potential value of the tool. Based on factors such as easy access and (to some extent) forced brevity, it could be argued that the problem of contribution becomes less of an issue when using the microblog for corporate purposes. And it seems that the easy access feature does facilitate for increased contribution activity. Nevertheless, the problem of low participation does persist in that setting as well.

2.3.2 Corporate tweets
In an exploratory study based on in-depth interviews with eleven participants from a large IT company, Zhao and Rosson (2009), attempted to find out how and why people Twitter at work. Their findings suggest that Twitter provided a new channel for people to broadcast
information that they would not share otherwise using existing channels such as email, phone, IM or weblogs, and that it can provide a variety of impacts on collaborative work, including enhancing information sharing, building common ground, and sustaining a feeling of connectedness among colleagues. The interviews also revealed that the users tweet to keep in touch with friends and colleagues, raise visibility of interesting things to their social networks, gather useful information for their profession or other personal interests, seek for help and opinions, and to release emotional stress.

The character limitation combined with the subscription feature was identified as important properties that enabled Twitter to become useful in the ways mentioned above. The non-reciprocal friend attribute, one participant argued, provided the user with a filter that made it possible to find the best types of information on the topics that she was interested in, because many of the Twitter users whom she followed had common interests. Furthermore, another of the interviewees reported that the brevity genre in Twitter made it easy to quickly filter through the information stream and determine what type of information would provide him with value; when exposed to tweets not interesting or relevant, he would simply scroll past them. Nevertheless, through the interviews carried out by Zhao and Rosson, it also became evident that some users were in need of better filter mechanisms. One user expressed irritation towards users who tweeted too much.

Another important challenge with respect to Twitter that is discussed by Zhao and Rosson is its public nature. The Twitter users interviewed said that they were hesitant to mention project or client specific information on the public feed, and they reported that they would share even more work-related information if the information exchanged was available only for people from within the company’s firewall. The large IT-company in this case study had also started using Yammer, which by it closed nature would be able to solve this problem.
However, some of the informants who had created a Yammer profile were also hesitant with respect to sharing confidential information in Yammer too. At the time of the study, the Yammer users also faced a somewhat different problem. The user base had not grown to the critical mass needed. Therefore, the users experienced limited Yammer value because of lack of participation. Some value was attributed to groups, but that was it. Another, more extensive, case study on Yammer also suggests similar issues. There too, value of use was mostly attributed to the groups, which in large part may have been caused by a low degree of posting activity.

2.3.3 A case study on Yammer

In a case study covering early adoption and use of Yammer in the fortune 500 company XB (a pseudonym), based on demographic HR records, a web survey and targeted interviews among Yammer users, Zhang et al. (2010) found that close to 60 percent of the respondents had never posted a message; similar to the social systems discussed above, a small group of people (one percent) contributed with the majority of the content, and the data also revealed that active posters tended to read more frequently than people who seldom posted messages. In terms of perceived value, a positive relationship was established between high value of Yammer and high posting frequency. However, some of the users who saw Yammer as being very useful, had not posted a single message, indicating that lurking in Yammer also has its merits.

The study also revealed some interesting aspects in terms of Yammer users’ ability to find useful information. Based on the findings in the large IT company using Twitter, it could be argued that making use of the user-follower feature could be seen as being a handy way to retrieve information in Yammer as well. But Zhang et al. found a correlation between people who rely too much on the following feature and those that report that they do not know how to limit their focuses. In fact, similar to the experiences reported by the Yammer users
mentioned above (Zhao & Rosson, 2009); Yammer groups were found to be the most efficient focus feature to retrieve relevant information.

To better understand the type information that was shared through Yammer, the authors of the Yammer study sampled 300 randomly collected messages. They then divided the types of communicative activities into four categories: share news (37 percent); conversation seeking (25 percent); Yammer-related topics (21 percent); and posts about the author him or herself. Sub-categories were also defined. For instance, 47 percent of the “share news” posts were about internal news, whereas 33 percent of the posts were about sharing external tech news. In the conversation-seeking category, 21 percent of the messages were posted to raise general issues to solicit comments and opinions; 13 percent were seeking answers to specific questions.

The survey also asked the respondents to answer what Yammer helps them with. The results suggest that Yammer is useful for people to 1) find out what others are working on; (2) reach out to ask questions; and (3) find people with similar interests. Despite lacking the distinction between informational and social values, many of these categories more or less converge with the ones identified by Jackson, Yates and Orlikowski in Mega; the studies reveal that the two communication tools are quite similar. Both internal microblogging and blogging, it seems, facilitate employee bonding, enable users to learn about company news and events (including what other people are working on), and allow users to engage in problem solving conversations.

One caveat in the Yammer study, however, is that relatively few XB users had started using the application when the study was carried out; at the end of a five-month collection of empirical microblogging data, only 1.3 percent (458) of XBs employees had created Yammer profiles. Thus, the findings can arguably be seen to only represent usage behavior among
early adopters. This bias is to some extent rectified, argue Zhang et al., by the fact that they had a large number of inactive users among the survey respondents.

Based on Yammer’s “hybridness” as a communication technology, the main goal of the review above was to identify the ways in which the users of the corporate microblog may interpret and make sense of the new technology. Participation was voluntary in the case studies above that researched corporate use of blogging and microblogging technologies. Thus, the benefits and usage areas identified to a large extent only represents the active users. Moreover, the studies on blogging and microblogging were explorative, so there may be other factors that should be considered apart from the ones identified above. This has to be kept in mind when reading the remaining parts of this thesis.

These facts notwithstanding, from the technology-implementation literature presented it can be argued that Yammer allows fellow colleagues to share knowledge and experiences in a company-closed environment. In this setting, regardless of geographical boundaries, Yammer users can share short messages both synchronously and asynchronously, bond with colleagues with similar interests, gain company pulse, publish news and avoid information overload through the systems filtering mechanisms. Moreover, the mechanisms in Yammer have been proven useful help its users with solving problems and finding out what other colleagues are working on. When these factors are considered, it could easily be argued that using Yammer has a significant, positive impact on knowledge sharing between the business units in multinational companies. Through Yammer, knowledge sharing may become more efficient, and the company as a whole may be able to stay competitive and innovative by removing the distance between the business units, allowing for new connections and directions of information flow between the employees. There are, however, also a set of
potential challenges associated with the technology. Indeed, the same technology may in fact prove detrimental on effective knowledge sharing.

2.3.4 Challenges
Both of the corporate blogging technologies discussed above were faced with the challenge of a low rate of participation among the registered users. In the corporate blog in Mega, a small percentage of the registered users produced the majority of the content; a similar distribution pattern was observed in XB. Some of the people interviewed in the large IT company that used Twitter for internal communication purposes had also started using Yammer. And they did also experience problems attributed to low participation, but in their case it was mostly caused by the fact that too few users had signed up. XB and Mega, on the other hand, had enough active users for the blogging technologies to yield more value, but in XBs Yammer network, the increased access to colleagues through the follower feature was associated with a low benefit score; thus, even when considering the low user base, people still experience situations that denotes overload of information.

Increased access to colleagues, driven in large by brevity and non-reciprocity, may be considered as a potential advantage, but it may also become a weakness. Zhao and Rosson (2009) identified Twitter as a tool that paradoxically enough could both alleviate and complicate the process of finding information because some users posted to frequently. Consequently then, if too many Yammer users habitually post too many messages, the lowered threshold for information sharing may instead expand the knowledge base even further. Instead of helping people find the information they are searching for, using Yammer in the corporation may instead actually complicate the search process even more. Consequently, if the user base grows to include more people, this problem may in turn grow exponentially.
In its capacity of being non-reciprocal, there may emerge an altogether new communication pattern in corporations using Yammer. When the users themselves can choose whom to receive updates from, information may flow in new directions. All the same, these benefits apply mostly for registered users because they can only connect to colleagues who have created a profile and who actively participate in the system. The authors of the Mega study did argue that some of the benefits could transcend to the offline community through the lurkers. But for the system to have any value, its users have to contribute with content. Moreover, the microblog system may also foster a one-to-many communication pattern, where only a few of the users contribute with the majority of the content. This could weaken its potential as a way of connecting colleagues from all over the world; the tool would only then be able to provide the users with limited access to the company’s geographically dispersed heterogeneous knowledge bases.

Nevertheless, it is important to observe that many of the corporate microblog users in the studies above did yield considerable value from the tool. I believe that this can partly be attributed to the tools’ inherent properties of being social networks. This argument will be elaborated on in the next section.

2.3.5 Potentials
Following the recent development of new internet-mediated communication technologies, some have argued that attention has developed into becoming a scarce resource in organizations (Hansen & Haas, 2001). Here, attention is defined “as the amount of time and energy that employees in an organization allocate to identifying, evaluating, and acquiring documents from electronic information sources in the organization” (Simon, 1997). As pointed out by Hansen and Haas (2001), in referring to Cyert and March (1992), people with limited attention who are in need of information are likely to perform sequential search queries. That is, they start out by consulting a small set of information sources, and expand
their search until the information needed has been found. And if they do not succeed in their search, they will at some point conclude that the information they are searching for cannot be found. Employing this type of search strategy may result in a situation where all the suppliers of the needed information have not been consulted; the searcher is instead likely to only consult a somewhat narrow selection of credible suppliers (Perloff, 1993) (O'Reilly, Chatman, & Anderson, 1987). Based on the review above, it seems that Yammer may allow for a different type of search strategy.

Recent research has shown that social network tools such as the corporate microblog may assist its users in quickly finding the information they need; by conducting social search queries – that is, asking the peers in the network for help – instead of semantically searching for information in the company’s database – i.e. using a search engine – the employees can get access to knowledge that they would not have had without the tool, making the problem of having access to too much information less dominant (Horowitz & Kamvar, 2010; Morris, Teevan, & Panovich, 2010). Broadly defined “the term social search refers … to the process of finding information online with the assistance of social resources” (Morris, Teevan, & Panovich, 2010, p. 2). Even though none of the articles reviewed above explicitly utilized the concepts, it seems that many of the benefits identified over can be related to social search queries. By fostering easy access to people outside ones immediate network, the corporate microblog makes it possible for its users, when in search for information, to directly contact people outside of their immediate network. When searching for information in a traditional search engine the searcher has to transcend a linguistic barrier. That is, she has to formulate the query so that the keywords match the words used by the website that has the “right” information. The intriguing aspect of the social search is that it leaves out the search engine as a mediator of information. Through social search queries, the linguistic barrier becomes less dominant. As pointed out by Horowitz and Kamvar (2010), the asker can express himself in
his natural language and the person that holds the relevant information is able to interpret the situation or described problem, without having to depend on being “triggered” by the correct keyword phrase.

It would seem that the users in Mega, XB and in the large IT company using Twitter utilized the power of the social search queries. Exploratory research has shown that when people explicitly ask their peers about a topic, they tend to solicit subjective meanings such as opinions or recommendations (Morris, Teevan, & Panovich, What Do People Ask Their Social Networks, and Why? A Survey Study of Status Message Q&A Behavior, 2010). Some of the benefits identified among the users in the respective companies clearly illustrate that they solicited such information from their peers. The people in XB argued that Yammer was a useful tool that could be used to reach out and ask for questions, people in Mega argued that it could help them get and give feedback, while the employees in the Twitter company amongst other things emphasized that they could seek help and opinions through the microblog system.

What is more, the social search queries are not limited to the process where a user simply asks his or her peers about help or feedback on a special topic; it can be performed passively as well. Here, the process is defined as to also include the practice of semi-actively monitoring information (through groups or other follower features) written by people the user follows directly, or posted in groups, or via topical tags that he subscribes to. As discussed above, the people using Twitter for corporate purposes and the Yammer users did report that the following-features enables them to receive updates from people, or groups, with whom they share common interests. Through these features, they were able to learn more about what their colleagues were working on and talking about, and thus gain a better overview over the company.

2.3.4 Recapitulation of Literature Review
In the literature review above I have presented an extensive account on Yammer in terms of its technology’s characteristics. I have also reviewed a small selection of exploratory studies covering the advantages and challenges associated with corporate use of blogs and microblogs. In its capacity of being a hybrid communication technology, Yammer may foster both asynchronous and synchronous communication with colleagues from near and far on a variety of topics. Drawing on these features, the users can locate and read old conversations through keyword searches, explicitly ask their peers for help or feedback, or semi-passively filter and monitor the stream of information that flows through the system, potentially leading to the creation of new communication patterns and invoking conversations that would otherwise not have taken place. The exploratory studies above did however not make a distinction between whether the users read posts real-time, or if they also found value in older post, and that is indeed an important issues to address in order to better understand the how the information flows between the users in the system. Moreover, the studies did also reveal that there are a set of barriers that have to be overcome in order for the technology to fulfill its inherent potentials. As of now, the technology is faced with two contradicting challenges. Only a small set of users actively contribute with content and; the majority tend to only use the microblog service to collect information. This does have a somewhat dampening effect on the overall value. But even in a context where the few talk to the many, some users experience problems associated with information overload.

The purpose of this thesis is to investigate if and how Yammer affects knowledge sharing in Capgemini and discuss the potential outcomes and challenges associated with its use. The review above clearly shows that the microblog has the potential to affect knowledge sharing activity in any company that puts it into use. However, it is important to note that the research literature on corporate blogging and microblogging were exploratory single-case studies. Some of the potentials and challenges identified there could be transferred to other
settings as well. But it is not clear whether the practices and implications connected with Yammer-use in Capgemini are similar to the ones found in XB, Mega and the Twitter company. Therefore, it is first of all important to investigate whether the findings from the exploratory studies apply in Capgemini as well. That is: Does Yammer use in Capgemini lead to new communication patterns and connections among the employees? Furthermore, if some or any of the beneficial and detrimental attributes can be transferred to the Capgemini setting, it still remains to be asked what the outcomes of these connections are.

3. Research Design

In this chapter, I explain why I chose the qualitative case study approach. Further insight into the research process is given by describing the research object and the context in which it uses Yammer. I also give an account on the development and deployment of a pilot study questionnaire, the development of the interview guide, how informants were recruited and how the data from the interviews were categorized. Finally, this chapter covers the study’s reliability, validity and transferability.

3.1 The Context of the Study

The research object in this thesis is Capgemini, a multinational consultancy, technology and outsourcing firm which had a turnover of EUR 8.4 billion in 2009, and which has more than 90,000 employees in more than 30 countries. At the start of the period in which this study was carried out, in April 2010, the firm’s employees had been using Yammer for approximately 18 months, and about 8,000 employees in Capgemini had a Yammer account. At the end of the period, in the beginning of October 2010, more than 12,000 had signed up.

As of now Yammer is not an official corporate tool in Capgemini. As was the case with XB, Capgemini does not host the conversations themselves. Customer confidential
information can therefore not be shared through Yammer, and the company has developed a
code of conduct relating to what is acceptable use in terms of both content and tone,
requesting its users to be courteous, factual and bold. Yammer participation in Capgemini is
voluntary. The company offers courses in using the tool, both for new and old employees. But
at the present time, a considerable portion of the active users are consultants that spend many
of their hours off site, according to a representative from the company.

In addition to Yammer, Capgemini uses a wide range of internal communication tools.
For information that should be stored persistently, they use a variety of knowledge databases.
They have the global knowledge database KM 2.0, wiki forums and several SharePoint
community rooms and intranets that are specific for the different countries. Additionally,
Capgemini also use an instant messaging application.

3.2 Pilot Study Design and Process

Initially, I planned to quantitatively measure the knowledge-sharing behavior pattern that
emerged among Yammer users in Capgemini. Based on literature related to strong and weak
bonds (Granovetter, 1973), I created a set of propositions relating to how Yammer may affect
communication pattern and cross-function collaboration. Backed findings from Hansen and
Haas (2001) I also propounded propositions related to strategies used for becoming popular,
and on the effects that lurkers have in transferring Yammer-knowledge to the offline system.
A web-survey was developed to test the propositions, but the sample was too small to produce
statistically significant analysis (n=40). Consequently then, I chose to adapt another research
approach; no longer able to continue on a quantitative path, I decided to go more in-depth and
study Yammer qualitatively by using a single case-study approach with in-depth interviews as
the primary, descriptive data source.
The survey data were not rejected; they were simply operationalized in another way. Even though the survey did not produce the amount of data needed for testing the propositions I had developed, the data were useful for attaining a preliminary understanding of the type of communication pattern that was created as a consequence of the implementation of Yammer in Capgemini. It also helped me gain some insights into the types of knowledge that is typically shared in the system, and confirmed that posting in Yammer may lead to other types of communicative activities. That is, the survey provided me with data that made it possible to use it as a pilot study. In that way, the survey served as a stepping stone; it gave some insights into the realm of the *whats* of Yammer, which made it possible to develop an interview guide aimed at revealing the *hows* connected to the use of the communication tool. In the following, I will give an account for how this process took place, starting with a presentation of the development and deployment of the pilot study.

### 3.2.1 Developing and deploying the survey

To create the web-survey I used *nettorskema*, a free survey tool available for students at The University of Oslo. The question asked were based on the propositions I had developed for the quantitative study. One of the motivations for using a questionnaire was that I wanted to compare posting strategy with popularity. Therefore a large majority of the 15 main questions asked were close ended questions; about half of these were five-point Likert scale questions (Punch, 2008). Questions about demographical factors such as age, gender, company position, tenure, work function and country where the respondent worked were also included. A set of Yammer-specific questions were also asked, including numbers of messages posted, number of followers and followees, number of months since Yammer profile was created. Furthermore, information on reading and posting frequencies were also requested. In addition to these questions, I solicited information on the degree to which they agreed on statements regarding benefits, motivations and barriers connected with the corporate microblog
technology. Finally, in an open-ended question I asked if there were issues about Yammer that the survey had failed to address.

When deploying a web-survey it is of crucial importance that the questions asked are clear and easily understandable; unclear questions may significantly decrease the value of the data collected. A pilot study can be used to identify questions that need to be revised because they are difficult to understand. The study may also help locate questions that should be eliminated (Bradburn, Sudman, & Wansink, 2004). To control for such problems, a pilot version of the survey was sent two employees in Capgemini, and revisions were made accordingly.

After the revisions were made, the survey was deployed at the end of June, and was kept open until the beginning of August. To increase the number of respondents, my contact person at Capgemini published a message on Yammer and on the intranet urging the colleagues to fill out the questionnaire; a reminder was sent out two weeks after the survey was deployed. In total 40 people completed the questionnaire.

3.2.2 Analyzing the Results of the Survey
The survey was developed and deployed in reference to a quantitative research design. And keeping this in mind, I planned to perform a regression analysis on the data with the statistics tool PASW Statistics. But when the survey data were to be operationalized to become part of a pilot study, such an analysis was no longer needed. The data were exported to PASW, but a simple overview of the results was available from nettskjema. Thus, most of the information gathered from the pilot study was analyzed through the web-survey program’s built-in statistics tool.

3.3 The Qualitative Research Design
Changing from a quantitatively study to an exploratory single-case study approach that was qualitatively founded had important implications with respect to the initial research design. First of all, the research question was significantly altered; instead of attempting to identify the relationship between popularity and posting strategy, the new research question aimed at a deeper understanding of how the technology affected knowledge sharing. With a new research aim developed, it was natural to choose an exploratory qualitatively founded case study approach. Because the corporate microblog is a new phenomenon that has received little academic attention, combined with the research question, the thesis is in its nature explorative. When the researchers have ample knowledge about the phenomenon that they want to describe, it is useful to apply the exploratory case study approach, which is typically associated with a line of inquiries seeking answers to explicit how and why- questions (Yin, 2009). Moreover, the qualitative approach has its emphasis on gaining an in-depth understanding of the phenomenon researched. (Kvale & Brinkmann, 2009). The quantitative approach, on the other hand, has its emphasis on distribution and numbers, testing predictions and manipulating variables (Frankfort-Nachmias & Nachmias, 2005).

I chose to conduct semi-structured personal interviews to gather the data. As a data-collecting tool the, the interview in general has it strength in that it allows for access to people’s perceptions, meanings and definitions of situations (Punch, 2008). The semi-structured interview was chosen because of its ability to allow for some rate of flexibility in that I could follow up on and elaborate on interesting Yammer topics as they emerged, while at the same time being able to probe deeper into a set of predetermined questions, allowing for an easier comparison between the respondents (Flick, 2009). Moreover, by using personal interviews, I would be able to clarify and explain questions and concepts in more detail, decreasing the risks of misunderstanding that is associated with non-personal questionnaires.
As mentioned in the introduction of this thesis, when faced with a new technology, people engage in a joint sense-making process which may result in different, conflicting interpretations. As of now, there are little more than ten per cent of the employees in Capgemini that have a Yammer account. Even though the technology has gained the strongest footing among off-site working consultant, the group using it is in now way homogeneous. They may interpret the technology and use it in different ways. Therefore, I chose a comparative design because I wanted to see how different users made sense of and used the technology.

3.3.2 Developing the interview guide
The questions in the interview guide were in large part anchored in the advantages and challenges identified in the exploratory case studies accounted for in the literature review. To build a comparative foundation, questions on demographical properties were included. Motivated by a wish to better understand how users perceive of and make use of the technology and the type of knowledge they typically share through the system and if they consider the tool to be best for asynchronous or synchronous communication, I asked a set of open questions with regards to the role of Yammer in terms of collaboration and internal communication, if and how the corporate microblog was useful, and the types of problems they typically solved through it. Moreover, to get insights into the effects of internal microblogging had on communication patterns and the flow of information, I asked question related to if and how Yammer had affected the relationship with colleagues, if the tool had expanded the users’ personal network, and if communicating in Yammer lead to something more.

Furthermore, I also wanted to know more about how people successfully make use of the corporate microblog to solve problems. Therefore, I asked questions on what social search query strategy the users utilized to get help. For such problem solving conversations to work,
people also have to contribute with content; otherwise, Yammer would only become a system full of questions with no answers. The process of helping people is therefore also important to understand. Therefore, questions on how and why a user helps a fellow Yammer peer was also asked, among other things I included questions on the necessity to build a profile, or if there were other determinants that decided if a user would help another person in the network.

I also included a set of questions with regards to challenges. An open question on if there were any specific problems with regards to using Yammer was also posited. Furthermore, I included a question that came to my attention as a result of the open “did-I-forget-anything” question in the survey. One of the informants argued that there were “misconceptions about real value and use (Work v play)”. I therefore also asked whether the informants conceived of the tool as being used for social or work-related purposes. Finally, I felt that it was important to ask questions regarding the types of problems that could not be solved. Because Yammer hosts the data for Capgemini, the users are not allowed to post messages containing customer confidential information, which may make the medium less appropriate for some types of knowledge-sharing activities.

3.3.3 Interview process
To explore the effects that Yammer may have on knowledge sharing in Capgemini, I wanted to compare how a set of active users made sense of and utilized the technology. A contact person in the company provided me with access to six active Yammer users. Among them were one representative from outside of Norway; the remaining five were divided between two of the six Capgemini offices in Norway. All of them were males, and the work roles of the participants included both workers and managers working both off and on-site. To entice potential respondents into participating in interviews, the contact person that recruited the informants forwarded an email to them that shortly explained that the interviews would deal with communication pattern and problem solving in Yammer.
The interviews were carried out by phone in the beginning of September 2010; five of them lasted for about 30 minutes, one lasted for about an hour. After consent from the interviewees, who were ensured anonymity, all of the conversations were recorded, and all but one of them were subsequently transcribed. Due to technical difficulties, the sound quality on one of the recordings was too poor to be transcribed. To avoid losing important data, I quickly wrote a summary of the conversation based on memory and notes taken during the interview, and sent it to the participant for quality check; he replied and made some important corrections to the summary. Transcriptions of the other conversations were also sent to the participants so that they could make corrections and elaborate further on the topics that were discussed. Three of the participants replied with further details.

There are a set of shortcomings and advantages that should be considered in terms of the method I chose for collecting data. By conducting phone interviews, I did not have the possibility to react on social cues that could have been important to follow up on to attain a rich data set. However, by carrying out the interviews via telephone, I got access to people from different departments in Capgemini, and the respondents would also be able to talk more freely because of increased feeling of anonymity compared with face-to-face interviews (Opdenakker, 2006).

3.3.4 Categorization of data
To prepare the data for interpretations and comparison, the statements from the informants were coded and categorized in an excel spreadsheet. The categories used were in large part based on the questions in the interview, but because the respondents also gave me additional information that was relevant for the study, a set of new categories were also developed. By doing this, I got a better overview of the entire data set, which I believe may have resulted in an improved interpretation process.
3.4 Reliability, validity and generalizability

In social sciences, the trustworthiness, strength and the transferability of knowledge are generally seen in context with the concepts of reliability, validity and generalization (Kvale & Brinkmann, 2009). In this section I discuss to which extent this thesis meets the requirements associated with these concepts.

3.4.1 Reliability
Reliability refers to the procedure of demonstrating the extent to which operations of a study can be repeated and yield the same results; that is, if another investigator at a later point in time carries out the same study, she should be able to produce similar results (Yin, 2009). In an attempt to make it possible for another person to be able to reproduce the same results that I attained (from the same case study), I have strived for transparency throughout the entire thesis. By producing a detailed documentation of the development and alteration of the research design and an extensive account on the research process, I believe I have been able to make such a reproduction possible. However, the reliability of the findings may to some extent have been reduced because of lack of experience with interviews.

3.4.2 Validity
Broadly defined, validity refers to which degree a method has investigated what it intended to investigate. As pointed out by Kvale & Brinkmann (2009, s. 246) in referring to Pervin (1984, p. 48), it pertains to “the extent to which our observations indeed reflect the phenomena or variables of interest too us.”

There are several aspects of this study that might have had a negative impact on the validity of the study. One possible problem is that the interviewees, when asked questions regarding Yammer, and specifically in relation to its challenges, may have produced answers that were socially desirable but not necessarily true (Ellingson, Sacket, & Hough, 1999). That
is, the informants may exhibit an unnaturally positive stance towards the technology because they are afraid of negative consequences. This problem was to some extent rectified by ensuring the informants anonymity. Furthermore, the framework utilized could in itself proved detrimental on the study’s validity because its construction is largely based on explorative studies of corporate use of blogs and microblogs. Other mechanisms apart from the ones identified in the literature review could be relevant to consider when developing the interview guide. Conversely, some of the questions that were derived based on the exploratory studies could be less relevant in another context. This weakness, I believe, was made less dominant by the development and deployment of the pilot study. Validity for the questionnaire itself was increased by having two people in Capgemini review it. And the final question in the survey, which asked if there were any issues I had failed to address, gave new clues with regards to other challenges associated with the technology. Finally, the quality of the data could have become limited because the informants did not get enough time to reflect on the questions. To remedy this predicament, the informants were informed about the general topic that the interview would deal with before they were carried out.

3.4.3 Generalizability

When discussing if the findings from an interview study can be seen as being reliable and valid, it is also of importance to see whether the results are of local interest only, or if they may be transferable to other subjects and situations (Kvale & Brinkmann, 2009). The (final) goal of this study was not to produce statistically generalizable observations, which partly deals with probability sampling and correlations between variables (Punch, 2008). Rather, the objective was to obtain an in-depth understanding of the use and effects of the corporate microblog in a multinational company. In that sense, the concept of analytical generalization can be seen as more relevant. Analytical generalization involves a reasoned judgment about
the degree to which the findings in a study can be transferred to other settings (Kvale & Brinkmann, 2009).

Even though the data was collected from a limited set of active users, I believe that the findings in Capgemini to a relatively considerable extent can be transferred to, and be relevant for, other companies, both large and small, using corporate microblog technologies because I attained insights into the effects the tool had on both a departmental level and a global level. The Yammer users I interviewed belonged to a group of people that had experienced various degrees of benefits from using the system in different ways, and some of them also explicitly expressed a range of problems and challenges associated with the technology. In other words, through the interviews I was able to not only capture the benefits and usage and knowledge-sharing tactics of a small group of elite users. In addition, I caught a glimpse of some challenges that could be made relevant for the users that do not see Yammer as a useful tool.

I do however also recognize that the transferability of the study has its limitations. By only talking to people who did experience benefits from microblogging, no attention was granted to users who may altogether have stopped using Yammer for various reasons. Conversations with these users may have given a more in-depth understanding of the challenges associated with the corporate microblog.

4. Analysis and Discussion

In this section I present the findings from the pilot study and the in-depth interviews, discuss if and how Yammer affects knowledge sharing in Capgemini, and consider the challenges that are associated with its use.

4.1 Results From The Pilot Study
After changing the research design, the motivation for analyzing the survey results was driven by a wish to get an introductory overview on whether Yammer use affected knowledge sharing in Capgemini. This question will be seen as confirmed if its use leads to a change in the communication patterns and connections among the employees. In this context, I found that it was relevant to consider if and how Yammer was perceived as useful and if using the tool had expanded the users’ network. Other interesting and useful data on usage patterns could also have been extracted from the survey results, but from the final perspective, I believe that the above-mentioned factors were the most important. Therefore, the following analysis of the pilot study is not meant to reflect an extensive review of the data set retrieved. Instead, it has its primary emphasis on factors relevant to usefulness and network expansion.

An aspect that can be considered as important in terms of usefulness is the tool’s ability to help its users solve problems. Early on in the questionnaire, the respondents were asked if Yammer had helped them with solving job-related problems. 42.5 percent said that the tool had helped them a few times, 27.5 reported that it had helped them sometimes, whereas 22.5 percent answered that the tool frequently helped with such issues. This shows that Yammer to a various extent helps its users solving problems, but it does not give any information with regards to the types of problems or how they are solved. The results from another set of questions did however contribute to a less superfluous understanding.

Based on the usage areas identified in the exploratory Yammer study in XB (Zhang, Qu, Cody, & Wu, 2010), I asked the respondents to indicate on a five point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree) the degree to which they agreed with a set of statements regarding what Yammer helps them with. The results (see figure 1) give some indication with respect to the outcomes of problem-solving activities that are carried out via the microblog. 77.5 percent answered that Yammer helps them solve problems
faster, and 57.5 percent said that the tool helped them solve problems in new and better ways. Moreover, other indicators gave some hint at the type of problem solving activities the tool was useful for. 77.5 percent argued that the tool helped them get feedback on ideas, and 80 percent reported that Yammer facilitated access to experts in their work area.

When considering if Yammer creates new or more effective communication patterns, it is also important to consider the role played by the “what are you working on” question. By logging on to Yammer, the user has immediate access to updates posted either in groups of interest or by users he follows. Based on the results it seems that the easy-access feature helps the users with finding out what other colleagues are working on or talking about (80-85 percent), access internal news (67.5 percent) and technology trends (77.5 percent), and get a better overview over the company (70 percent).
Another set of questions in the survey were more directly aimed at understanding to what extent Yammer use leads to new communication patterns. When asked if Yammer had expanded the user’s personal network, 75 percent of the respondents replied that it had. This can to some extent indicate that communication takes on a new direction through Yammer. The respondents answers to another set of questions gave more strength to this observation, and gave some clue with respect to how Yammer can facilitate knowledge sharing among
people through chance encounters in the system. I asked two questions representing the processes required to engage in communicative activity outside the system. The first question asked whether the user had been contacted by a fellow Yammerer that he or she did not know from before, through another communication medium, on the basis on something said user wrote in Yammer. The second question was based on the same conditions, but put the respondent in the driver seat, so to speak, asking whether he or she had contacted an “unknown” Yammer user based on something that the contactee had written. In both cases, more than 60 per cent reported that such communicative activity had taken place. Both of these questions were followed up by a question asking them to indicate the content of the post that lead to further non-Yammer conversations. The respondents could check as many categories as they saw fit out of eight topics: 1) technical advice/ideas; 2) business advice/ideas; 3) information about customers; 4) news from outside the company; 5) news from within the company; 6) technology trends/theoretical knowledge; 7) gossip; and 8) other. In both questions the topics that were checked the most were theoretical advice/ideas and business advice/ideas. The third and the fourth most popular categories were “information about customers” and “technology trends/theoretical knowledge.” Furthermore, a handful – between four and five people – checked the remaining four categories.

The selective analysis above has shown that Yammer indeed seems to have a positive effect on the communication pattern in Capgemini. The observations that are connected with people using it for getting feedback and faster problem solving do not it themselves give any concrete support to whether new communication patterns have emerged as a result of microblog activity; the people whom the users connect to in order to get feedback on ideas may indeed consist primarily of colleagues that they already are acquainted with, and the very same argument can be made with respect to problem-solving activities, at least with respect to solving problems faster. In that case, fast problem solving may simply be a result of Yammer
simply speeding up the process of sharing information among previously made connections, a feat that in itself is of considerable value. However, more than half of the respondents reported that the tool also was useful for solving problem in new and better ways. This can to some extent arguably be seen as an indicator that people receive informational inputs from new sources, an observation that is strengthened further by the fact that Yammer facilitated easier access to experts, expanded the users personal network and sometimes also caused people who were not acquainted to engage in non-Yammer conversations as a consequence of reading or posting a work-related message.

Based on this short analysis, I believe it is possible to give a preliminary answer to the first part of the research question. Using Yammer does affect knowledge sharing in Capgemini. In its capacity to expand its users network and facilitate access to experts, it could be argued that the tool creates new communication patterns; people using Yammer receive information inputs from new sources and make new connections with previously unknown colleagues through posting and reading messages in the microblog system. Furthermore, based on the observation that people experience faster problem solving as a result of using the microblog could also be seen as an implication that existing communication patterns becomes more efficient in Yammer.

It is however important not to consider these findings as being relevant for the entire population of Yammer users in Capgemini. The users who answered the survey only represent a small fraction of the Yammer community, and the sample is considerably biased towards the active Yammer users. A large majority of the respondents are active posters; only four had posted less than ten messages, while a mere half the population had posted between ten and 200 updates. The rest of the respondents reported that they had posted between 200 and 5,000
messages. Usefulness may thus to some degree arguably be proportionally linked with posting frequency.

4.2 The Yammer Context: Perceptions, Outcomes and Challenges

The results from the questionnaire gave some insight into how Yammer affects knowledge sharing in the company I studied. It could seem that Yammer both speeds up communication among existing contacts in addition to creating new ones. Little is however known about the outcome of the connections. New connections may have the potential to result in cross-unit collaboration and as such allow the workers to recombine knowledge and let the company as a whole increase its potential for innovation. Furthermore, a more proficient communication channel among previously existing connections may have an important impact on efficiency.

To better understand the outcomes of these connections, it remains to be asked what type of information the users share through them. As mentioned in the research-design chapter, Capgemini does not host the data itself. And consequently the users cannot post messages containing customer confidential information. There is as such a limitation with respect to the type of information that can be shared through the system, which arguably may limit the role that Yammer may play in internal communication. Moreover, the type and direction of the information donated and collected in the channel are also affected by how often the user reads Yammer messages, which feeds he reads from, where he asks questions, and how and why he comments on messages posted by other people in the system. This is in turn connected with the users’ perceptions of Yammer; the tool has potential value as both a real-time and concurrent communication system that can be used for both social and professional means. Together, these factors contribute to shaping the medium that is Yammer.

In the following sections I will compare how the different users perceive of the tool and consider the potential limitations that the customer confidentiality issue brings with it.
Then a description of how often and in what the interviewees utilize the tool will be presented. Furthermore, I will give some examples of the outcomes of the knowledge sharing activity in Yammer. Finally, challenges associated with the microblog are discussed.

4.2.1 Perceptions and limitations

Short Lived Conversations

A majority of the respondents in the survey reported that Yammer was useful to solve problems faster and better. And as more and more problems are solved through the system, its users could in principle utilize Yammer’s built-in search engine to enter semantic search queries to locate solutions to previously solved problems. Conversely, they may perhaps instead first and foremost regard Yammer as a tool that allow them to listen in on conversations and as they enfold, making the data themselves in practice become as short-lived as conversations held in real-life, non-digital settings.

Based on the observation above, the interviewees were asked whether they considered the tool to be a real-time or an asynchronous instrument. The answers I got showed that the tool in large part was conceived of as a tool for sharing non-persistent knowledge. One respondent had observed that, within the same group, identical questions were be posted on two consecutive days. Another informant gave a more elaborate answer on his perceptions of knowledge within Yammer:

From the knowledge sharing point, Yammer is ideal for sharing knowledge which need not be persistent. It is more streamlined, information you want to store persistently should be shared in other tools. Yammer is instead ideal for picking up noise like you would at the water-cooler conversation.

All the interviewees did portray similar stances on the value of the knowledge: it was used for real-time communication. “What has passed has passed,” one respondent argued. The built-in search tool was however seen as valuable in terms of finding out where they should ask for
help; two of the respondents reported that they used the search function to locate people or
groups that could help them with solving problems.

_Work vs. play_

The final question in the web-survey gave the respondents an opportunity to tell me if there
were any issues the survey had failed to address. Ten of the respondents did provide med with
additional information. One of them argued that there were “misconceptions about real value
and use. (Work v play).” This comment motivated me to ask the people I interviewed a
question on whether they conceived of the tool as being a place for working or playing. The
answers from the respondents show that their perceptions to some extent are conflicting. Two
of the informants considered Yammer as primarily being a productivity tool, whereas the
remaining four used it for both purposes. For these people, the main usage area was
productivity, but they also argued that the tool also had social effects. Indeed, one of them
argued that the motivation for using it was spurred by a social issue, but that it now had also
taken on the form of being useful for job-related questions.

_Customer Confidential Information_

The fact that the users in Yammer cannot post sensitive information in the corporate
microblog may arguably be seen as a potential limitation. But according to the informants
interviewed, this was actually not a big a problem as it appeared to be. Because of the ban on
posting sensitive information, the users were forced formulate their message in abstract terms.
One respondent, when speaking on Yammer use in relation to problem solving, argued that
this made it easier to translate problems to other parts of the company. Moreover, if the users
had to share sensitive information, it could be shared indirectly instead. The material needed
could be published in one of Capgeminis formal knowledge databases, and the users could
post a message with a link to the material in Yammer.
4.2.2 Asking and Reading
An important part of this study is devoted to understanding the directions in which information flows among the Yammer users in Capgemini. Insight into the routes through which information is collected and donated can be achieved if the processes of active and passive search queries are considered. In terms of directly soliciting information, a user can choose between many strategies; the inquiry can be directed to a group, to persons following a theme and to the persons following the user. In addition, when posting a message, the writer can also tag people whom he thinks can help him. Where and how the user chooses to post his query should naturally tend to be a result of the information he is searching for. But he does have many choices in terms of choosing where to search. Conversely, the user also has a choice with respect to where he reads. The subscription feature allows the Yammer user to choose whom he receives information from; be it from groups, individuals or on themes. And the feeds that a given user chooses to monitor may grant her access to information from a various set of sources throughout the company. Moreover, where the user reads has a direct effect on who, if any, he helps in the system. Based on these observations the users were asked to explain the ways in which they conducted their active and passive social search queries.

Active Search Queries
The informants were asked how they went about to solicit help from other co-workers. All of the respondents used sequential search tactics for finding help. Different contextual settings did however lead to differing tactics. Two of the respondents started their search queries by locating a relevant group where the inquiry could be posted, but they then proceeded in different ways. The first of them tagged people whom he knew could help him, and, given the fact that he had many followers, had also found it useful to post the inquiry directly on his wall. The other proceeded directly to searching globally.
Another start-out search tactic was explained by two of the other respondents. They did not attempt to locate a relevant group for their question. In one of the instances, this was connected to the fact that the asker had already identified the group in which to ask the question. This user had expressed problems concerning low participation among his Norwegian colleagues, and as such only used Yammer to ask concrete questions in a non-Norwegian group where topics concerning his business area were discussed. Because he had few followers, the search process normally stopped at that point. Asking questions in that group was the best way to solicit information, he argued.

The other user who did not use energy on locating a relevant group did however not stop searching if he did not get the information he was seeking. This user, and another respondent, worked in the Norwegian department Delta (a pseudonym). Delta had had early on chosen to create a group that was only accessible for the users in the division consisting of 30-40 employees. As such, these informants reported, communication among the group members thrived. In a group closed off from global access, the colleagues were able to communicate in their native language and keep an informal tone. The Delta informant started out searching locally, and then proceeded to the Norway group. He would then ask an open question to the global community if the preceding steps did not yield any results.

**Passive Search Queries**

When I conducted the telephone interviews, I asked the informants how often they read Yammer. Among them, the reading frequency varied greatly. Some reported to read on a daily basis, another stated that he read his feed three times per week. One of the respondents said that he normally only read on a weekly basis, but he did read more often if he was soliciting comments and feedback from other colleagues. Statistically speaking, the six users interviewed cannot be seen as being representative for the large user base in Yammer.
Nevertheless, the reading pattern they reported does to some extent have similarities with the reading pattern among the 40 users that answered the survey questions:

1.1. How often do you read Yammer? *

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real time</td>
<td>15</td>
<td>37.5%</td>
</tr>
<tr>
<td>Couple of times a day</td>
<td>14</td>
<td>35.0%</td>
</tr>
<tr>
<td>Once a day</td>
<td>2</td>
<td>5.0%</td>
</tr>
<tr>
<td>Weekly</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>4</td>
<td>10.0%</td>
</tr>
<tr>
<td>Only when prompted by others</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Read for a few days, then stopped reading</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

As can be seen in the table above, reading frequency among the majority of the 40 users was distributed in the interval daily to weekly, with a greater part of them reporting to read on a daily basis. The survey did however not ask the respondents to explain what feeds they read. Nevertheless, the in-depth interviews did provide some insights into the reading habits of the users. And even in this small sample, it was clear that the users prioritized the feeds differently.

One of the informants working at Delta said that he frequently read the closed group feed, and also granted regular attention to the follower feed and the company feed. The other Delta worker, in speaking on behalf of his department, said that he felt that the people-follower feature was less dominant than Twitter; he instead read feeds from groups on topics that he was interested in, including the local group. Another user had adopted a narrower reading habit; he usually relied on reading information from his follower feed, and reported that he devoted little notice to the other feeds available. Furthermore, the most passive of the users only read when he had asked for information. At the opposite side of the scale, a user who described himself as being a very active Yammer users, argued that, for him, feed reading was a quite random process. He used *everything*. Moreover, in his capacity of being a
high frequency user, he had observed that people normally read messages posted in groups, and sometimes also paid attention to posts written by the people they followed.

**Multi-platform Communication Technology**

When considering how the Yammer platform is used, it is also important to give attention to the fact that the technology grants access from many platforms; Yammer allows people to post and read messages from its desktop application, via a cloud-based application on the web, via their smart phones. This feat could arguably contribute to increased use of the technology because its users can log on from the remotest of locations. But the informants expressed various opinions with respect to Yammer’s different platform. Indeed, while two of the informants argued that the killer-argument for using Yammer was its accessibility, others reported that Yammer to some extent offered little availability. A respondent that spent most of his working hours off-site pointed out that he could not install the desktop application on a customer computer. And due to compatibility issues with old web-browsers, he had to manually refresh the browser window to read new updates. Moreover, another informant draw attention to the fact that it was not possible apply filter mechanisms from his iPhone application.

**Helping Other Peers**

Up to now, the analysis has only granted attention to the process of collecting and soliciting for information. The process of knowledge sharing, at least with respect to soliciting for help or feedback, does rely on reciprocity. Based on the results from the web-survey, it does seem that there is some sense of reciprocity in the population sample. In the web-survey I asked the respondents to answer how often they commented on other peoples posts in Yammer. 25 percent reported that they did so a couple of times a day; 12.5 percent answered that they commented on a daily basis, whereas 57.5 percent said that they commented only weekly or
occasionally. These results in themselves only show that people communicate in Yammer, it
does not give any hints with respect to the extent to which these comments actually give
people help. However, the results from the survey also showed that 90 percent of the
respondents considered Yammer as a useful tool for giving feedback to colleagues.

To understand more about how this process operates in Yammer, the respondents were
also asked about how and when they help other peers in the corporate microblog. In this
respect, the users’ habits varied greatly. One of the respondents said that he usually helps
people every time he drops by, if there are topics he knows about or if he knows people who
have the wanted experience. Another said that he would help people if he can. He would,
however, help people faster if he knew them. “But if I can solve it in ten seconds, I’ll help
them anyway,” the informant emphasized. Yet another respondent focused more on the
motivation for helping, and argued that, by helping others, one would later be able to solicit
information from the person helped at a later point in time. A fourth informant gave emphasis
to another important issue that could potentially hinder Yammer from yielding value to its
users. When asked how and if he helps people in the corporate microblog community, the
informant answered that he had not contributed with anything concrete. He had participated in
conversations. But in order to help others, he said, it is important to have something
worthwhile sharing. The respondent did however follow up this statement by emphasizing
that he would indeed help a person if the opportunity came along.

4.2.3 Outcomes
In order to gain a better understanding of how Yammer is used, all of the respondents were
asked an open question on how and why they use the corporate microblog. The respondents
reported different motivations for using the tool, but in sum, to some extent similar to the
findings in XB, Yammer was seen as a useful tool in terms of keeping up to date with what is
happening in Capgemini on a departmental and international level; exchanging experiences;
keeping in touch with colleagues at the department; and asking knowledgeable peers concrete questions through social search queries. In the following, I will present the different outcomes that this use has had on knowledge sharing in Capgemini.

**The little things**

All of the telephone-interview respondents were asked to give examples of problems they had solved by using Yammer. Their response showed that the tool was used to solve problems related to everything from product questions and sales presentation methods to more concrete, immediate issues. Some of the users did not present concrete examples, but painted a more general picture on the types of issues that they had solved through Yammer. Two argued that using Yammer was a good way to exchange information and experiences in terms of new sales and presentation methods. As one of these two replied when asked to give examples:

> I use it for solving product questions and for presentations. If I have to write a presentation I simply write that in Yammer. And then I get many answers from people who share their experiences.

A fourth user gave an even more general explanation, arguing that Yammer was used for the little things:

> The normal work day revolves around solving small problems. We are not working on a cure for cancer, we make business solutions. In that regard it is important to solve the little things to move forwards.

Indeed, small obstacles in the work day can cause decreased production efficiency by way of frustration and irritation. It is therefore important to remove these obstacles as soon as possible. As one of the respondents that worked in the business unit that had created a closed group argued, voicing frustration in the corporate microblog may result in solving small
problems efficiently. He gave a concrete example of a small problem that was solved via Yammer:

One example of basic problem solving is that [people, when working from a customer office,] sometimes experience problems with filling in their time sheets. And then that information is posted quickly on Yammer. And then one more person reports having a similar problem, followed by a third post that says "I have tried this and it works." So you've got it fixed pretty quickly. [If the Yammer tool had not been available] all the people who had this problem would have called the secretary who is responsible for this. She would then have to call someone else to sort out the issue. So [Yammer] makes such problem-solving activity more efficient.

The Delta respondent sent me the corresponding screen shot to the example cited above. The correspondence shows one Yammer user stating that she cannot access the time-sheet application, a fellow Yammer user from the same department had already found the solution, and informed his colleague about it, and thus the problem was efficiently solved without drawing on additional resources in the company. This was not a one-time occurrence. The Delta-respondent that gave me this example said that he knew of several similar examples. But he too stated that Yammer is not a forum for solving the big problems.

**Feedback**

Since using Yammer may allow for more fluent access to colleagues and workers, regardless of distances caused by geography, work function or hierarchy, the corporate microblog has the potential to enable its users to quickly get feedback on ideas and concepts from fellow colleagues from both far and near. As mentioned above, the results from the web-survey showed that 90 percent of the users who filled out the questionnaire found Yammer to be a tool that helped them get feedback on ideas.

Wanting to know more about how users utilized Yammer as a tool for receiving feedback, the respondents where asked if they had any examples of instances where this
potential, primarily from a leadership perspective, had been realized. Two users, one of whom argued that too few of his Norwegian colleagues utilized Yammer, could not recollect that this had happened at all. The remaining four, however, had seen or experienced examples of such occurrences, but in different contexts. Three of them only had indirect experience with this potential. The global CTO, who recently had started using Yammer, had been seen using the tool to pitch ideas and get fast feedback, one respondent reported. The respondent had also seen some users use Yammer as a feedback tool in terms of prepping sales cases. Moreover, the other two interviewees who only had observed but not utilized the feedback potential reported that the sales and marketing department and managers every now and then solicited feedback comments from their colleagues to see what they think. This was made possible, one of them argued as a result of a free flow of information combined with a fast feed-back function.

The final respondent, who worked at the business unit that had a closed department group, recollected a concrete example of using the feedback function. The respondent and his colleagues were planning to create a newsletter for Capgemini Norway, and were discussing which format they should use. They then posted a question in Yammer’s Norway Group, asking the users there to share their experiences and meanings. Within 24 hours, they had received replies from more than 30 colleagues, which enabled the newsletter team to quickly choose an appropriate format: an email with a short body text and a link to a website where. The respondent argued that they saved a lot of time by soliciting feedback this way. “It was a very good way to check out the opinions,” he stated.

**Finding the expert**

80 percent of the people who filled out the questionnaire agreed on the statement that Yammer helped them with getting in touch with experts in their work area. Some of the
Yammer users interviewed gave additional input on how the expert finding feature worked in real-life. Using Yammer, one of the interviewees had been able to make contact with a colleague in England that was very knowledgeable on the Lean method, and reported that he had had frequent contact with that individual. Another user told a similar story. He needed information to sell in a project related to mobile product development. Upon soliciting information on whether someone in Capgemini had experiences in this area, the user quickly made contact with a for him unknown colleague in England; they exchanged email addresses and the respondent was sent relevant reference material. If Capgemini got the project, the contact in England agreed that he could join in as an expert source. These were the most concrete examples that were attained via the interviews, but two of the other respondents, albeit from a more general perspective, also highlighted finding experts as a valuable usage area.

**Reusing existing knowledge**

When asked to give examples of instances where Yammer was used to get fast feedback from fellow users, the interviewee that had seen the global CTO use the microblog to pitch new ideas made it clear that there are yet other ways in which the corporate tool could be utilized: finding references. As explained by one of his colleagues, the consultancy business does to a large extent revolve around selling references; it is very seldom that the company is able to sell in projects in areas where they have no previous experience, a respondent argued and remarked that in Capgemini, by virtue of having close to 100,000 employees, everything has been done before. Upon completing this statement, I asked the informant short a follow-up question whose answer in itself helps to illustrate the potential power of the social search query:

Me: You only have to find the person that has done it before?
Informant: Or find the person that knows the person that has done it before.
Before [Yammer], you had to work in a company for several years to build up a network, but now [the process] of networking has been speed up considerably.

In addition to removing the linguistic barrier associated with semantic search queries, searching for information through a social network enables the searcher to locate knowledge from users that live beyond the immediate network of people that he or she is directly connected to via the subscription features or groups, potentially having an enormous impact on the ways that knowledge flows through the company.

**Expansion of Network: Seeing is Knowing**

When conducting the telephone interviews, one of the respondents gave some clues with respect to the way in which the network expansion in Yammer operates:

> For me, everybody who I saw publishing, or who replied to me on Yammer, I know that person in a way, and it is therefore easier for me to contact them. That is the real power. It is easier to connect to people you do not know yet.

Communicating with colleagues via Yammer, or in fact only seeing their picture, contributes to a multi-unit socialization process. And in coupling this statement with an observation from another respondent, it can seem that access to people facilitated by the corporate microblog has other effects than creating new and more efficient communication channels. By using the corporate microblog, another respondent argued, he suddenly realized how enormous the company he works for really is, a perception that did not as much come to mind when working from a local office. Through communicating with his colleagues and even only seeing pictures and statements on what they were working on, this informant argued that it was also easier to collaborate with them in a real-life setting.

**Keeping in Touch With Colleagues**
Up to now, I have primarily granted attention to the ways in which Yammer facilitates the creation of new communication patterns among users distributed throughout the company. The tool, however, has also been found to be of use for departmental communication. Many of the workers in Capgemini spend much off their time working from customer locations. As such, these workers have limited availability to keep in touch with their colleagues, making them unable to socialize and develop a sense of belonging and community. For the Delta-department, Yammer had proved successful in terms of giving co-workers to access to a substitute to the water-cooler conversations, giving the people the ability to become better acquainted.

4.2.4 Challenges
The outcomes exemplified in the previous section does not occur automatically. For Yammer to yield value, active participation is required. As was the case with XB, and Mega, only a few set of the 12,000 registered users in Capgemini regularly contributes with content. In the Delta department mentioned above, the success of using Yammer as a place for socialization and informal conversations was a result of the department early on taking strategic measures to foster the communication among the Delta workers. They urged their employees to participate and chose to create a group that was only accessible for the users in the division consisting of 30-40 employees, allowing the colleagues to communicate in their native language and keep an informal tone. The closed setting, it was argued, lowered the threshold for sharing information because the workers did not experience the barriers associated with writing to a potential crowd of 12,000 colleagues in a language they did not necessarily master at a high level.

One of the Yammer users I interviewed that was not from the Delta department did argue that lack of participation in his local work places put considerable limitations on the value of the system. This person was introduced earlier as user that only used the tool to
solicit answers on concrete questions, and this was a direct reflection of the fact that few of his Norwegian colleagues had created Yammer accounts. The other interviewees did not explicitly mention few users as a challenge, but two of the people that filled out the web survey did in the final open question name few users as being considerable challenge. One of them pointed out that there were to few Yammer resources (people) in some business areas, and argued that the corporate microblog network had not become as valuable as it could have been. (There is a possibility that the person who made this comment is the very same individual that raised the same concerns in the telephone interview; there is a match between a set of demographical factors that could indicate that this is the case. Nevertheless, the argument is still sound, regardless of if it was made by one or two persons). The other user who made a comment on few users in the web survey called attention to problems of low uptake in the higher levels of management, saying that he was the only senior manager who actually used Yammer and that he was having trouble getting the others to use it.

Having to few users is not the only challenge associated with Yammer. As reported in the section on how people made sense of the microblog, the users interviewed did experience various challenges in terms of the accessing the technology from its various platforms. For instance, lack of filtering options in Yammer’s smart-phone applications made one user argue that it was too difficult to follow the relevant streams of information. And this does not only seem to be a problem that concerns reading from small-screen utilities. A respondent who complied when asked to tell me if there were issues the web survey had failed to address wrote that his main issue was that reading the countless streams of “yams” could take considerable time, resulting in a tendency that the people who use Yammer are those with an active role in the technology or those who can allocate time to use it.
And then there is also the issue of conflicting perceptions of the technology. One of the interviewees from the Delta department was logged on to Yammer while the telephone interview was conducted. During our conversation, a person he followed posted a message on a non-work-related trivial topic; upon reading the post, the informant expressed irritation and argued that he did not see the value of such posting activity. A similar point of view was made by one of the web-survey respondents, who raised concerns connected with increased amount of small talk in the system. When juxtaposed to a statement a web-survey respondent made in the comment field, it seems to become evident that there is a clash of opinions regarding how Yammer should be used.

I view Yammer as providing "social glue" for a global company - in which there is not only room for - but an absolute requirement for - idle chit/chat, jokes etc. "All work and no play makes Jack a dull boy!" as the saying goes.

If Yammer is to serve as a social glue for the global company that is Capgemini, its users have to come to an agreement with respect to how the technology should be used. As of now, the different interpretations, combined with too few users, could indeed prove detrimental on the inherent potential of the corporate microblog technology. However, socialization need not necessarily be separated from work. As one respondent reported with the telephonic equivalent of having a twinkle in ones eye: “There are so many nerds working here that we socialize by means of conversing on job related issues.”

5. Concluding Remarks

5.1 Conclusion

In this thesis I have explored if and how the company-closed microblogging service Yammer affects internal knowledge sharing in Capgemini. In order to understand the effects that the corporate microblog technology had, I applied a three-step interpretation process. Because the
medium I investigated was a new phenomenon that could be used in many different ways, and because the channel only provides access to information, I argued that it was important to gain insights into the characteristics of the medium, how the users made sense of the technology and how they used it.

I characterized Yammer as a hybrid medium that combined the traits from many different communication technologies and argued that it as such allowed for both synchronous and asynchronous communication in both open and closed groups, with people from near and far. There were some limitations to the type of knowledge that could be shared because Capgemini did not host the Yammer date themselves. In-depth interviews with six active users showed that they first and foremost considered Yammer as a tool for real-time communication, and that limitations on not being allowed to share customer confidential information to some extent could be seen as advantageous; limitations imposed by not being able to share sensitive information resulted in people being forced to formulate themselves in abstract terms, which, in terms of active social search queries, makes it easier for people in other settings to recognize the situation at hand. Moreover, if sensitive material needed to be shared, Yammer could be used as an indirect relay channel that linked to information published in one of the formal knowledge database systems. When moving from perceptions to actual use, I found out that, even among the few users interviewed, search tactics to solicit information from their peers did to some extent differ. Moreover, the users varied even more on their reading and helping habits, in terms of both location and frequency, drawing both on local and distant sources for information, using the tool on a daily to a weekly basis. The results from the survey did to some extent confirm that the practice of the few to some extent was transferrable to the sample, which more or less also consisted of active users. Consequently then, the users also had different approaches in terms of helping other users. To be able to help another user requires seeing the message solicits for help or information. That
fact notwithstanding, some saw it as a regular part a Yammer session, while others argued that
knowing the person who asked was an important determinant to help users with problems that
would require more than immediate attention. Together, the factors above shapes the medium
that is Yammer and decides in what directions information flows through it.

Based on the results from the pilot-study, I argued that it could seem that Yammer use
did have a major impact on internal knowledge sharing in Capgemini. The somewhat
selective analysis of the pilot-study indicated that Yammer, in its capacity to expand its users
network and grant easy access to experts, facilitated the creation of new communication
channels and managed to make existing ones more efficient. These results did only give a
preliminary overview of the type of communication activities that emerged in Yammer;
supplementary in-depth knowledge was however attained through conversations with the six
active Yammer users. The respondents confirmed that the using the tool lead to the creation of
new connections that would not have been made if Yammer had not been used. By using
Yammer to solicit for information through active social search queries, users were able to
make connections with previously unknown colleagues, potentially giving them new inputs
for solving problems. Furthermore, through the microblog it was also possible to find
references of old projects in order to sell in new ones, gain a company pulse, and socialize.
Conversations with the informants did also confirm and give examples of how Yammer
increased communication efficiency; the tool was considered as a valuable channel for
efficiently soliciting feedback, and some reported that the microblog proved to be an efficient
channel for solving day-to-day problems. Yet others had managed to use the application as a
substitute for the water-cooler conversations not available for consultants who spend most of
their hours working off-site. Moreover, using Yammer could also seemingly have another
more indirect effect. Simply observing conversations in Yammer, or being able to see a face
instead of an email adress, made some users feel that they got to know their colleagues better, making it easier to collaborate with them in real-life settings.

There were also a set of important challenges associated with the microblog. First and foremost, many felt that lack of users made the tool yield less value than it would have done otherwise. What is more, people reported different experience with respect to being able to access the information available in Yammer. This was in part caused by technical problems; some users experienced issues with not being able to access their accounts when working from customer computers due to matters of lacking web-browser compatibility. But concerns where also raised in terms of allocating enough time to use it properly. The most important issue raised, I believe, is that there (among the respondents asked) exists a conflicting disagreement with respect to how Yammer should be used. Some perceived of the corporate microblog as a productivity tool, while others saw value in its socialization capabilities as well. Can it be both?

5.2 Implications, Caveats and Future Research

5.2.1 Theoretical Implications: a Technology in The Making
The goal for writing this thesis was to explore how a new communication technology affected knowledge sharing in a large multinational company. By exploring the role that Yammer plays in internal communication in Capgemini, I believe I have contributed with a preliminary insight into understanding the advantages and challenges associated with implementing a specific Enterprise 2.0 technology in multinational companies. I have also gained understanding into the process by which people strive to make sense of new technologies. This thesis has caught a glimpse of a communication technology still in the making, and as such it illustrates the importance of not considering technology implementation as a one-sided process in which the human actors have no saying.
5.2.2 Practical Implications
This thesis has brought attention to several aspects with regards to the advantages and challenges associated with the use of Yammer in Capgemini. While the account on the outcomes that Yammer use had on knowledge sharing showed that there were many advantages associated with corporate microblogging, it is first and foremost important to consider the barriers that has to be overcome in order for the technology to yield more value. Increasing activity among existing Yammerers and recruiting more people to join in would arguably make the system more valuable. But at present time, there are conflicting opinions on what Yammer is. As (or if) the user base grows, it remains to be asked the extent to which the tool can be used for both purposes. On a strategical level, a company using a corporate microblog should therefore consider what measures it should make to contribute with defining the technology.

5.2.3 Caveats and Future Research
In its capacity of being a single-case exploratory study, the thesis is limited in several ways. The main descriptive data source consisted of in-depth interviews. Because five of the six respondents were Norwegian, the results could to some extent reflect a Norwegian culture. I might have ended up with other results if I had interviewed Capgemini workers from other countries. The Yammer users that filled out the pilot survey did however represent more than ten nationalities, so the results attained from the survey could arguably be seen as being more representative. What all the respondents had in common is that they are active users. As I mentioned in the research design chapter, I did not speak with non-users, or users who might have stopped logging on to Yammer because of little value. These users may have given me additional insights. Moreover, even if the results can be seen as relevant for Capgemini, things might be different in other companies. For future research then, I suggest that it would be of academic interest to perform qualitatively based comparative studies to develop more in-
depth understanding on how the corporate microblog may affect organizational knowledge sharing in other settings.
6. References


Appendix 1 – Interview Guide

1) Introduction:
   o Age
   o Tenure
   o Job description
   o Company position/function

2) Field context: projects and internal communication
   o What types of projects do people in Capgemini typically work on?
   o How do you acquire projects?
     ▪ Typical problems connected with acquiring projects?
     ▪ Role of internal communication in acquiring projects?
   o How do you secure high quality in carrying out the projects?
     ▪ Typical problems in carrying out projects?
     ▪ Role of internal communication in carrying out projects?
   o What role does Yammer play with respect to project related work?
   o How is Yammer different from other digital information channels?

3) Utilization of Yammer
   o (How long have you used Yammer?)
   o (How often do you use Yammer?)
   o How do you use Yammer? (start with a general question to identify whether there are things to follow up….)
   o Do you consider Yammer to be a useful tool?
     ▪ And if so, how is it useful?
       - (Finding out what others are working on? Bond with other people? Find the expert? Gain company pulse? Problem solving? Collaboration? Other?)
   o Problem-solving: In Yammer, when you are looking for information you need to solve a problem, how do you go about finding it?
     ▪ Post query on your wall? Ask the local expert? Search query? Use focus groups? Other?
   o Helping others: how do you help other users in solving problems?
     ▪ Do they contact you directly? By answering posts in a focus groups?
In Twitter, you are not likely to get help when asking for it from other Twitter users unless you have created a profile with a picture and written some posts.

- Does communication in Yammer work in a similar fashion? Please elaborate!

  o Problems not solved in Yammer
    - Are there any problems that you feel is not possible to solve through Yammer?
    - EG opportunity cost?

  o (Following and followers: Do you have any reflections with respect to the following feature in Yammer? How do you use it? Who do you follow? Why?)

4) **Does communication in Yammer lead to something more?**

  o Can you express some reflections with respect to whether, and if so how, Yammer has affected your relationship with co-workers both on-site and off-site?
    - Expanded personal network?
      - If so, what does this expanded network lead to?

  o Do you talk do people that you met in Yammer in other communication mediums (because you met them there?)?
    - If so, with who, in what medium, about what?

  o Have you engaged in cross-unit collaborative projects with people you got to know through Yammer? (because you got to know them through Yammer?)
    - If so, what type of projects?

  o (Manager question) Implementing Yammer in the corporation provide managers with access to employees ideas, regardless of their hierarchical position. Do you have any examples where this potential has been realized?

5) **Barriers and problems related to Yammer**

  o Are there any specific problems that you can think of in terms of using Yammer?

  o What about “flaming”?

  o Are there any conversational topics you withhold from the Yammer-medium?
    - If so, what topics, and why?
    - What about the non-users?
Appendix 2 – Web Survey
Submit the form "Yammer Survey"

Who are the Yammer users in Capgemini? What type of information do they share? With whom do they share information? I would greatly appreciate if you fill in this short questionnaire. The information in this survey will be kept strictly anonymous and will only be used for research purposes. Thanks in advance! Steinar Årdal, Principal, Innovation Lead Capgemini Norway

The answers in this form are anonymous. Questions marked with * are mandatory. You must complete and submit this form within 30 minutes. Otherwise the form will be reset and your answers will be lost.

### 1. Yammer use

**1.1. How often do you read Yammer?** *
- Real time
- Couple of times a day
- Once a day
- Weekly
- Occasionally
- Only when prompted by others
- Read for a few days, then stopped reading

**1.2. How often do you comment on others posts in Yammer?** *
- Couple of times a day
- Once a day
- Weekly
- Occasionally
- Only when prompted by others
- Never

**1.3. For approximately how many MONTHS have you had a Yammer profile?** *

**1.4. How many people do you follow in Yammer?** *
This information can be found beneath your picture on your Yammer profile page: Following

**1.5. How many people follow you in Yammer?** *
This information can be found beneath your picture on your Yammer profile page: Followers

**1.6. How many messages have you posted in Yammer?** *
This information can be found beneath your picture on your Yammer profile page: Messages

### 2. Previous microblogging experience

2.1. Did you use Twitter before signing in on Yammer? *
If so, how often did you use Twitter? *

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Hardly ever</th>
<th>Never used Twitter</th>
</tr>
</thead>
</table>

### 3. Benefits from using Yammer

3.1. Has Yammer helped you in performing your job? *

<table>
<thead>
<tr>
<th>Never</th>
<th>A few times</th>
<th>Sometimes</th>
<th>Frequently</th>
</tr>
</thead>
</table>

### 4. Benefits from using Yammer II

Please consider if Yammer has helped you:

**4.1. Solve a problem faster than you otherwise would have** *

**4.2. Solve a problem in a new and better way** *

**4.3. Get feedback on an idea** *

**4.4. Give a colleague feedback on an idea** *

**4.5. Find out what your colleagues are working on** *

**4.6. Find out what your colleagues are talking about** *

**4.7. Get access to internal news** *

**4.8. Access internal gossip** *

**4.9. Get a better overview of the company** *
4.10. Learn about new technology trends *
4.11. With sales related work (e.g. increased efficiency and quality) *
4.12. Get tips and ideas for writing presentations *

5. Friends in Yammer
Please consider if Yammer has:

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1. Expanded your personal network in Capgemini *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2. Helped you get in touch with experts in your work area *</td>
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</tr>
</tbody>
</table>

6. Communication outside Yammer

6.1. Have you ever been contacted directly (e.g. phone, email, face-to-face) by someone you did not know on the basis of something you posted in Yammer? *

- Never  0 One to five times  0 More than five times

6.2. If so, what was the typical content of the post(s)

- Technical advice/ideas
- Business advice/ideas
- Information about customers
- News from outside the company
- News from within the company
- Technology trends/theoretical knowledge
- Gossip
- Other

7. Communication outside Yammer II

7.1. Have you ever contacted a Yammer user you did not know (by mail, phone, face-to-face or instant message) on the basis of something he or she wrote in Yammer? *

- Never  0 One to five times  0 Five times or more

7.2. If so, what was the content of the post(s)

- Technical advice/ideas
- Business advice/ideas
- Information about customers
- News from outside the company
- News from within the company
- Technology trends/theoretical knowledge
- Gossip
- Other

8. Communication outside Yammer III

8.1. Have you ever shared information found in Yammer with colleagues who do not have a Yammer profile? *

- Never  0 Between one and five times  0 More than five times

8.2. If so, what was the nature of the information?

- Technical advice/ideas
- Business advice/ideas
- Information about customers
- News from outside the company
- News from within the company
- Technology trends/theoretical knowledge
- Gossip
9. Communication outside Yammer IV

9.1. When you contact a Yammer user outside of Yammer, the communication typically takes place through *
- Phone
- Email
- Face-to-face contact
- Instant message (messenger)
- Twitter
- Facebook
- First any of the above and then face-to-face contact
- Not applicable

10. Motivations for posting messages
I participate in Yammer because

10.1. It is good for my reputation *
10.2. My boss wants me to do it *
10.3. It is good for my career *
10.4. I like helping other people *
10.5. I want to show my colleagues what I am working on *
10.6. Others I know use it *
10.7. I want help from my colleagues *

11. Barriers for posting messages in Yammer
Why do you not post (even) more messages in Yammer?

11.1. Takes too much time *
11.2. I am afraid the information will be misused *
11.3. I feel it is difficult to use Yammer *
11.4. I don’t have anything worthwhile to share *

12. Content of posts

12.1. For me, Quality and Focus is more important than Quantity when I post messages *

13. Personality

13.1. I usually rely on being successful in everything I do *
13.2. I am rarely unsure about how I should behave *
13.3. I like to assume responsibility *
13.4. I like to take the lead when a group does things together *
13.5. I enjoy convincing others of my opinions *
13.6. I often notice that I serve as a role model for others *

Nettskjema: Submit the form "Yammer Survey" https://nettskjema.uio.no/answer.html?fid=44220&lang=en
13.7. I am good at getting what I want
13.8. I am often a step ahead of others
13.9. I have many things others envy me for
13.10. I often give others advice and suggestions

14. Demographics
14.1. Gender
- Male
- Female
14.2. Age

14.3. Tenure (years in Capgemini)

14.4. Company position
Choose...

14.5. Job function
Choose...

14.6. Which country do you work in?
Please spell the name of the country in English

15. Comments
15.1. Are there issues about Yammer that this survey has failed to address?
If there are, please tell me about them