

Online Community as a Source of Social Capital - A qualitative case study of The Other IBM

Organization and Management

Master's thesis

Laura Mirjam Tuutti

2010

Abstract

The goal of this study was to better understand the life in an intra-organizational online community. A framework of social capital was selected to be used in studying and describing the social life inside a community through exploring what social capital in this context and environment really means. A research question of “*What kind of social capital is formed in an intra-organizational online community?*” was set. A goal of finding out if a community really could be formed in this type of an environment and to study the case community based on sociological definitions of a community to explore if these groups could rightfully be called communities was also set.

To answer these questions, various qualitative research methods were used, drawing influence from ethnographic research. This particular set of research methods enabled the researcher to gain a reflexive understanding of what it is like to be a part of the Internet, and to capture the richness and complexity of social life. For the purposes of this study one online social group from a large multinational company was selected to be studied. Research was conducted during a three months period during which the researcher participated in community’s life almost daily. The most important method used was participative observation which was augmented with 20 semi-structured interviews with members and nine community calls. Also publicly available data and forum or blog discussions were gathered and analyzed. All the data was analyzed using techniques from grounded theory and discursive analysis.

Based on the findings from this study it can be said that community formation is possible also in cyberspace inside the firewall. The group studied was found to be a community in its traditional sense while its members shared common activities and interests, even passions, and the group had a strong common identity. While some relationships were more professional, also relations of affect and strong friendships were created. It seems that with regards being active in promoting community’s mission the membership is divided into two camps – the teachers and the learners. This model fits well into Leave and Wenger’s (1991) concept of a community of practice with apprenticeship model and legitimate peripheral participation.

All three types of social capital – structural, cognitive and relational – were found from this community. The community offers a resource or a platform for the network formation though leaving the resulting network quite open and interlinked with many other communities. Narratives and stories were used extensively and knowledge and practices were also transferred through artifacts. The community demonstrated to have a collectivist group norm and a strong norm of reciprocity was also visible. Members identified with the community and a common identity existed.

The relationship between a community and social capital seems to be a complex and bidirectional one. While social capital can contribute to community formation, community also creates new social capital during the course of its daily life. Especially bonding social capital was thought to interact with the community.

Keywords: Social Capital, Online Community, Virtual Community, Social Network

Tiivistelmä

Tämän tutkimuksen tavoitteena oli oppia paremmin ymmärtämään yritysten sisäisten virtuaalisten yhteisöiden elämää. Tähän tarkoitukseen valittiin sosiaalisen pääoman viitekehys, jonka avulla yhteisöä tutkittiin ja kuvattiin. Sosiaalista elämää yhteisössä pyrittiin kuvaamaan tutkimalla mitä sosiaalinen pääoma kyseisessä kontekstissa ja ympäristössä käytännössä tarkoittaa. Tutkimuskysymykseksi asetettiin: ”*Minkälaista sosiaalista pääomaa muodostuu ja voidaan löytää yrityksen sisäisestä virtuaalisesta yhteisöstä?*” Tämän lisäksi tutkimukselle asetettiin tavoitteeksi selvittää onko virtuaalisen yhteisön muodostuminen mahdollista kyseisessä ympäristössä, sekä voidaanko kyseisiä ryhmiä oikeutetusti kutsua yhteisöiksi sanan perinteisessä, sosiologisessa merkityksessä.

Näihin kysymyksiin vastaamisessa käytettiin useita laadullisia tutkimusmetodeita ottaen vaikutteita etnografisesta tutkimuksesta. Tutkimuksen kohteeksi valittiin yksi virtuaalinen yhteisö suuresta globaalista yrityksestä. Tutkimus toteutettiin kolmen kuukauden aikana, jolloin tutkija osallistui yhteisön toimintaan lähes päivittäin. Tärkein käytetty tutkimusmetodi oli havainnoiva osallistuminen, jota täydennettiin kahdellakymmenellä puolistrukturoidulla jäsenten haastattelulla sekä yhdeksällä yhteisön tapahtumalla. Näiden lisäksi myös julkista tekstimuodossa olevaa materiaalia sekä foorumi ja blogikeskusteluja kerättiin ja analysoitiin. Kerätty materiaali analysoitiin grounded theory –menetelmällä sekä diskurssianalyysin keinoja käyttäen.

Tutkimuksen tulosten perusteella yhteisön muodostumisen voidaan todeta olevan mahdollista myös virtuaalisessa maailmassa yrityksen palomuurien sisällä. Tutkitun sosiaalisen verkoston todettiin olevan yhteisö myös termin perinteisessä merkityksessä, sillä jäsenet jakoivat yhteisiä käytänteitä ja kiinnostuksen kohteita, jopa intohimoja. Tämän lisäksi kyseisellä yhteisöllä oli varsin vahva oma identiteetti. Yhteisössä muodostuneet sosiaaliset suhteet olivat ammatillisten suhteiden lisäksi myös osittain hyvin vahvoja, ja osaa niistä voi jopa kutsua ystävydeksi. Yhteisön tavoitteiden aktiivinen edistäminen tuntui jakavan jäsenistön kahteen osaan – opettajiin ja oppilaisiin. Kyseinen malli sopii Leaven sekä Wengerin (1991) käsitteeseen käytäntöyhteisöstä.

Yhteisöstä löydettiin jokaiseen kolmeen luokkaan – rakenteelliseen, kognitiiviseen sekä relaationaaliseen – kuuluvaa sosiaalista pääomaa. Yhteisö toimii alustana ja resurssina verkoston muodostamiselle jättäen kuitenkin verkoston hyvin avoimeksi ja monen muun yhteisön kanssa verkottuneeksi. Narratiiveja ja tarinoita käytettiin yhteisön toiminnassa mittavasti ja tietoa sekä käytänteitä siirrettiin artefaktien välityksellä. Yhteisössä oli myös nähtävissä vahva kollektivistinen –sekä vastavuoroisuuden normi.

Sosiaalisen pääoman ja yhteisön suhde vaikuttaa olevan monimutkainen sekä kaksisuuntainen. Siinä missä sosiaalinen pääoma voi edesauttaa yhteisön muodostumista, myöskin yhteisö luo uutta sosiaalista pääomaa päivittäisessä toiminnassaan.

Avainsanat: Sosiaalinen pääoma, virtuaalinen yhteisö, sosiaalinen verkosto

Table of Contents

1	Introduction	1
2	What is social capital?	4
2.1	Different definitions and conceptualizations of social capital	5
2.2	Dimensions and elements of social capital	11
2.3	Social capital in online environments	14
3	Virtual Communities inside the Company	19
3.1	“Observable” characteristics of virtual communities	20
3.2	Sense of community	23
3.3	Integrating the two viewpoints	25
4	Online social capital – A qualitative case study	28
4.1	The case community	28
4.1.1	<i>International Business Machines (IBM) in a nutshell</i>	28
4.1.2	<i>Online Communities at IBM</i>	29
4.1.3	<i>Blue IQ Ambassadors Community</i>	33
4.2	Methods	35
4.2.1	<i>Methods used during the field study</i>	35
4.2.2	<i>Analysis of the data</i>	38
4.2.3	<i>Researcher as a community member</i>	38
4.3	Results	41
4.3.1	<i>Virtual community or virtual social network?</i>	42
4.3.2	<i>Elements of Social Capital</i>	50
4.3.3	<i>Discussion: Social capital as a resource for individuals, the community and the company</i>	62
4.3.4	<i>The relationship between social capital and a community</i>	66
5	Conclusions	70
5.1	Summary of the findings	70
5.2	Managerial implications	73
5.3	Further research possibilities	74
6	References	76

1 Introduction

“We seek to pioneer new spaces, to create in them, to live in them. And in those new spaces, we seek to relate to one another. It represents our humanity, our freedom.” (Fernback, 1999: 214)

This mindset from Fernback’s quotation has become strongly visible in cyberspace during the last decade. More often people go to online sites and spaces to connect with one another, to be active in the area of their interest and to create, discuss, find and offer support and to simply socialize. This change has been caused by new ways of interacting on the Internet that the so called Web 2.0 has brought with it. Individuals are able to create and publish their own content, follow and comment on other’s content and collaboratively organize the vast amount of information available. People are interacting and collaborating in the Net and while doing so, creating so called wisdom of the crowd.

During few recent years this development has started moving from society at large also towards companies. Companies have begun offering social software tools inside firewalls for their employees to use when collaborating with one another. This has enabled employees to connect more easily across countries, continents and organizational units. While employees find other like-minded colleagues online from whom they can learn and with whom they can exchange ideas and collaborate, they have started to realize the benefits of connecting online. Just as there are spaces and social groups in the Internet that connect people sharing similar interests, these social aggregates, that many laymen and some researchers call virtual or online communities, have started appearing inside companies as well.

I was interested in understanding this virtual world and finding out what “the thing” is in these communities. Why do people participate in this kind of an activity even though it is something extra in addition to their daily work? This seemed to constitute a profoundly different and new way of working and I wanted to understand it. While the goal of this study – understanding and describing the life in these communities – cannot easily be reified, I chose to use the concept of social capital as a framework for understanding, explaining and describing the social activity. As a concept and theory, social capital seemed to fit well for this purpose, while it is essentially about resources for individuals and larger social groups that exist at least partly because of the

online social networks.

I soon learned that organizational and even more so, virtual organizational social capital was a relatively unexplored topic as previous research had focused more on social groups of the society at large such as neighborhoods, schools, families or offline interest groups. Hence I decided to aim at finding an answer to the question of “*What kind of social capital is formed in an intra-organizational online community?*” Even though this question had been explored in traditional social capital research, a limited amount of studies of the nature and forms of social capital in virtual environments existed. Also, it was not clear whether social capital studies not focused on profit seeking companies, such as Putnam’s work of American society, could directly be applied in organizational settings. Thus for this research I set the goal of understanding the social life in a community through exploring what social capital in this context and environment really means.

Though before I could focus on the social capital in these online Communities¹, I wanted to understand the Communities themselves better. Having experienced the community word to nearly lose its connotation and original sociological meaning, while used imprudently even by many academics, I did not want to take the existence of a community as given. For this reason I first wished to find out *if the social network I was studying was indeed a community in its traditional sense.*

These two theoretical concepts – community and social capital – seemed to be interestingly conjoined and even overlapping. Some researchers (e.g. Smith, 2008: 22) even propose that the notion of social capital could be used in understanding the health of the community. While this offers an interesting question to tackle after social capital has been unveiled, it also offers a mind provoking question about the relationship of the two concepts. How could the relationship of these two concepts be described and understood? Could the existing community provide a platform for social capital to be created and hence offer a resource for its members’ actions? I also decided to explore this relationship within the frames of this study.

¹ For the purposes of separating the social groups that at IBM are termed communities from the sociological meaning of a community, I will capitalize the first letter, while I refer to the Communities at IBM

While social software adaptation in companies is still in its infancy, I chose to conduct my research in an enterprise that has a long history in social computing, and that states the history of intra-organizational online communities to date back to the 1970s. I selected one online community from IBM (International Business Machines) to take a closer look at by means of qualitative case study, drawing influence from ethnographic studies, and engaged in the life of the community during a three months period.

While the aim of this study is to use social capital to describe and understand the social life inside a community, I am first and foremost aiming at discovering:

- *What kind of social capital is formed and can be found from an intra-organizational online community?*

Also to avoid the inaccuracy of many researchers of online social networks and to explore if community formation is even possible in this type of an environment, I will critically investigate my source for empiric data and intend to answer questions of:

- *Can a community in its traditional sociological sense be formed in this context and environment? Is the Community I have chosen to study in fact a community?*

In addition to these questions I found the linkage of the two above-mentioned concept of interest and I will explore the relationship of the two:

- *What is the relationship between social capital and a community?*

In this study I will first explore the theoretical concept of social capital at large in chapter 2. Social capital will be defined first at large and then reviewed more specifically in the search of particular observable elements of it. In chapter 2.3 I will present findings from previous studies of online social capital. Chapter 3 will then focus on communities and a set of criteria for a community is formed. Chapter 4 will then focus on presenting the empirical case study and its findings. In chapter 5 I will summarize the findings from this study.

2 What is social capital?

I have selected the concept of social capital for this study because of its potential ability to explain and characterize social actions in human networks. Regardless of varying definitions, social capital essentially is about justifying that social networks are valuable for an individual and for larger groups, and hence seems to fit well to my interests in unveiling the social life in company online social networks. This chapter will present the theoretical conceptions of social capital first from a wider perspective and at the end explore past research findings related to social capital found from online environments.

The challenge of finding a widely accepted definition for the concept of social capital seems insurmountable and thus some researchers are dreading the term to become a metaphor per se. Getting beyond all-inclusive and sometimes vague metaphors and finding an answer to a question “*What is social capital?*” seems even more complicated. An analysis of social capital writings reveals that different scholars define social capital surprisingly differently. The phenomenon – social structure, resources of others and benefits derived through those resources – is the same, but differences arise while explaining causalities. Interpretation of the different variables included in and surrounding the concept becomes even more challenging while some authors refer to same phenomenon with distinct names or even meanings (Syrjänen & Kuutti, 2004: 22).

While in the journey of finding an answer to the question “What is social capital in virtual communities?” I will first have to take a step back and define how social capital has been defined and used in offline environments. Blindly only looking at texts describing virtual environments might easily take me to a wrong direction offering a narrower view because of the young age of this particular stream of social capital research. By reviewing a wider set of literature (covering both offline and online interactions) in a search of different forms of social capital and then taking this list of possible expressions of social capital with me to the virtual world, I believe to be able to avoid possible pitfalls of too narrow viewpoints. Though it also must be kept in mind that face-to-face social activity does differ from online social activity and hence traditional social capital research might not always be directly applicable to online environments. This issue will be explored more in chapter 2.3.

I cannot jump right into the different forms of social capital without first understanding the differences in the definitions of the concept and possible reasons behind these dissimilarities. In the first section I intend to present some fundamental debates and different viewpoints surrounding social capital theory and aim at finding the most suitable conceptualization for the purposes of this study. Chapter 2.2 will then take the selected conceptualization as a starting point while different forms and elements of social capital are sought after for the purposes of making social capital more observable and laying ground for the field study. In chapter 2.3 I will present findings of other similar researches conducted and discuss the possible effects of virtualization on social capital.

2.1 Different definitions and conceptualizations of social capital

The term social capital has its origins in the mid-century social sciences but only during the past two decades has gained momentum as a wider paradigm for capturing the contributions of social elements in explaining a variety of individual and collective behaviors (Adler & Kwon, 2002). The concept has been used while studying numerous topics ranging from status attainment and social mobility, competitive advantage in economic organizations, political participation, psychological and physical well being (Lin & Erickson, 2008), study of families, schooling and education to public health (Adler & Kwon, 2002). Because the concept is so strongly rooted in social sciences and applied in numerous disciplines since its first appearance, a better understanding of the phenomenon will require a brief look at its origins and applications from the introduction of the concept to the present day. It is also worth pointing out that even though the concept of social capital has well recognized theoretical groundings in the field of sociology in addition to which it has also been extensively applied to many other disciplines, the term has also reached a level of interest and maturity in the field of organizational theory where it can no longer be laid off as a fad or a theoretically empty metaphor. In organizational studies social capital has been studied in the context of career success, inter-unit resource exchange, product innovation, employee turnover rates, entrepreneurship and supplier relations to name a few application areas (Adler & Kwon, 2002).

The difficulty in defining the concept of social capital resides in its multiple and diverse conceptualizations and applications. Individual researchers and the research area as a whole

clearly lack a consensus of the definition. Complicating the definition work even further social capital can today be seen as a multi-disciplined research area (Daniel et al. 2003) where each discipline defines the term somewhat differently. Different definitions are almost endless and differ according to the discipline, unit of measurement, author or even the topic social capital is trying to explain. I will take a closer look at different conceptualizations of social capital later in this chapter, but here I consent to a broad definition that will not limit the scope too greatly and stands in accordance to my position on the dichotomy on conceptualizations presented later on. Hence I will adopt the definition by Adler and Kwon (2000: 93) who state that: “*Social capital is a resource for individual and collective actors created by the configuration and content of the network of their more or less durable social relations*”.

After studying closely the numerous texts aiming at producing a commonly accepted framework for the research on social capital it became apparent that no such framework exists and even more apparent that all such attempts differ greatly from one another. Because of the great differences, it is easier to approach the topic by reviewing the aspects that nearly all scholars agree upon. One such aspect is the existence of social capital as one of the four forms of capital and expectations of returns that come through the notion of capital. Excluding some discordant notes (see for example Baron & Hannan, 1994: 1122-1124) the academics agree that social capital can rightfully be classified as one form of capital in addition to physical, financial and human capital. Thus social capital can also be seen as a resource to which other resources can be invested in expectation of future returns (inter alia Adler & Kwon, 2000; Lin & Ericsson, 2008). These returns can be seen to occur to either individual or social actors depending on a point of view of analysis. As opposed to other forms of capital, financial resources do not play a role in investments in social capital. It is more often cited, that *an individual* can invest in social capital by building and maintaining her network of external relations (Baker, 1990) but also *collective actors* can invest in the development of their internal relations and in so doing, strengthen their collective identity (Adler & Kwon, 2000: 93) gaining common benefits. Surely there are some differences between social capital and other forms of capital the most important one being its communal nature. While other forms of capital are private goods, meaning that the person investing in them will receive the benefits, most forms of social capital can be regarded as collective goods (Coleman, 1988: 100-101). This is because social capital is not located in and

thus owned by a single entity, but it *exists in the relationships* between people. Burt (1992: 58) describes the ownership stating that: “No one player has exclusive ownership rights to social capital. If you or your partner in a relationship withdraws, the connection dissolves with whatever social capital it contains”. Notwithstanding this major difference the movement initiated by Pierre Bourdieu (1986) treating social capital as an equal and powerful form of capital has gained momentum and is recognized and leveraged in contemporary social capital literature. While the types of resources one invests in while maintaining social networks are easily understandable, the expected returns from this investment are more ambiguous.

With regards the location of social capital a near consensus exists. Most of the authors locate social capital in the relations among individuals (Coleman, 1988: 101) or social collectives (Adler & Kwon, 2000). Portes (1996: 7) supports the idea stating that “To possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage”. This citation leads us closer to the topic for which no such unanimity exists – “to possess” indicates that a rightful owner of social capital could be seen to be the individual using it for her advantage. The answer to this question seems to divide scholars into two camps others conceptualizing social capital as a public good (e.g., Bourdieu, 1986; Coleman, 1988; Putnam, 1993) while the other half emphasizes personal benefits that actors gain from *their* social capital (e.g., Portes, 1998; Burt, 1997) which is regarded as a private good, possessed by the individual. This dichotomy leads us to a situation with two profoundly different conceptualizations of social capital. To understand the differences and the reasons behind them it is beneficial to take one step back and look into these two streams of social capital research.

The two schools of thought can be seen to have originated from different disciplines. The first class of definitions and texts on social capital has greatly been impacted by social network theorists. Sandefur and Laumann (2000: 71-73) characterize the view of this stream by having an *egocentric perspective* on the relationships in social systems. Granovetter’s (1973) weak ties approach offers a good example of research supporting this view. This stance on social capital is about individual’s network, direct and indirect relationships, and the benefits she can draw from those networks. In this view a person is seen as a self-interested actor who seeks to use resources accessible through the network, but not belonging to her, as means for driving her own interests

(Sandefur and Laumann, 2000; 71-73). Even though Coleman (1988: 118) notes that in most cases social capital is a by-product of activities engaged in for reasons other than a purposeful accumulation of social capital, the egocentric perspective emphasizes that the winner is the one who can use this social capital best for her advantage. Also Adler and Kwon (2000) note the dichotomy but name the two streams differently. According to the authors, this stream sees social capital as a resource located in the external linkages of a focal actor. Thus the dichotomy is between the linkages. In contrast the other stream sees social capital as a “feature of the internal linkages that characterize the structures of collective actors” (p. 92). Still to describe the first stream the authors state the primary focus to be on the relationships actor maintains with other actors and common characterization of social capital to be a resource facilitating action by a focal actor. Most often works belonging to this stream explain career success (Burt, 1992; Gabbay & Zuckerman, 1998) or job search (Granovetter, 1973) or the fulfillment of other individualistic goals.

The other stream, cited by Sandefur and Laumann (2000: 71-73) as *sociocentric* and feature of *internal* linkages by Adler and Kwon (2000: 92) focuses more on the collective. Social capital is seen more as a by-product by social relationships in the context of larger relationships patterns in the system. The focus consequently is not on individual’s own contacts and network, but on how she is positioned in the whole system (Sandefur & Laumann, 2000). This stream conceptualizes social capital most often as a public good and as an attribute of a social unit, not an individual. According to Adler and Kwon, this stream has drawn influence and developed under political sciences and developmental economists. The authors also contradict this internal view on the external communicating that the benefits or return drawn from social capital are not individualistic, but rather relate to group cohesiveness and the benefits it brings. Empirical research under this view has covered among others the role of social capital in facilitating inter-unit resource exchange and product innovation (Tsai & Ghoshal, 1998), the creation of intellectual capital and knowledge (Nahapiet & Ghoshal, 1998) and inter-organizational learning (Kraatz, 1998).

Major part of this dichotomy is caused by different viewpoints and a different unit of analysis. Egocentric or external perspective locates the individual in the center of analysis while

sociocentric or external view inquires about the collectivity. There are also authors who offer conceptualizations neutral of this dimensions. Even though Bourdieu (1986) can be seen to represent the first stream, he makes a statement that social capital is simultaneously possessed by the community and an individual. Also Gabbay and Leenders (2001) emphasize the need to include more than one dimension in the social capital research. Excluding the other dimension from my research would beyond question lead to a limited view on social capital. Hence I will try to leave this, to some extent even artificial dichotomy, behind and try not to exclude either view in my work. I will not yet want to draw a conclusion that either part of the phenomenon is absent in virtual environments. While certain kinds of norms or common language might facilitate communication and group work, opportunism might also exist.

Now after having taken a stance on some major issues surrounding social capital I will yet again step a bit closer and start locating the actual substance and forms of social capital. What will aid me in my search is a commonly accepted notion I have presented above of its existence in the relationships between different actors. This will limit the possibilities and make the definition work less complicated. Even though as previously stated, this statement is one of the rare ones almost all researchers among disciplines agree upon, it is not always visible in the definitions and conceptualizations of social capital.

The two previously presented streams also give grounds to the definitions of social capital. As the first stream is seeking to explain individual's performance it often includes descriptions of relations an actor maintains with other actors and often solely constitutes social capital as the structure of the network. Authors focusing on the structural side of the networks include for example Granovetter (1973), Burt (1997) and Belliveau et al. (1996). In addition clearly originating from the first stream is a group of researchers characterizing social capital as the resources one can achieve through these networks. For example Lin et al. (1981: 395) define social capital accordingly noting it as the "social resources embedded in an individual's social network". Social resources are defined as "the wealth, status, power as well as social ties of those persons who are directly or indirectly linked to the individual" (p. 395). Lin (1999: 35) continues the work later on but still emphasizes the social resource element in his definition: "the resources embedded in a social structure that are accessed and/or mobilized in purposive actions".

Bourdieu's definition combines these two aspects defining social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (1986: 248). Bourdieu's definition states that social capital is decomposable to two elements; social relationships that allow the access to resources possessed by other people and the amount and quality of those resources.

The sociocentric stream can be seen to include definitions that dig deeper into the characteristics of the network and note those characteristics as the substance of social capital. This can be seen in the works of authors such as Lam (2000), who makes notion of the norms defining social capital to be the accumulated knowledge stored in organizational rules, procedures, routines and shared norms which guide the problem-solving activities and patterns of interaction among team members or Putnam (1995: 67), who defines the term suggesting that "Social capital refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit".

The elements that different authors circulate ending up with distinct definitions can be seen to include the network and its various features, resources possessed by the network members, benefits derived through the use those resources as well as various sources of social capital. It can easily be seen that resources possessed by other actors cannot be located in the relationships between two entities unless they serve for a specific function for the person benefitting from those resources. Hence I do not see the resources to play a key role in the phenomenon without a purpose for which they are used nor without means to access those resources. In addition to this I do not see the benefits such as power in the individual level or information diffusion in the collective level (Adler & Kwon, 2000) to constitute the foundation. I believe these benefits can more rightfully be described as the return of the investment made in social capital. At the end this leaves us only with the social structure and its distinct features, but still I cannot claim the strength of ties or community norms to equal social capital.

Coleman makes a tempting proposition suggesting that social capital is to be defined by its function. "It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of

actors – whether persons or corporate actors – within the structure” (Coleman, 1988: 98). He also denies the interchangeability of social capital, while some aspects of social structures facilitate certain action, but have no effect or even a negative one to others – thus depending on the exact notion of their function. Adler and Kwon also offer similar kind of view broadly noting social capital as “the features of social structure that facilitate action” (2000: 90). Following these persuasive footsteps *I believe that while combining the different features of social networks with the function for which they are being used or for what they non-intentionally facilitate, we have located social capital.* The aspects of social structure and their function in that particular situation constitute a valuable resource for the actors within this particular social structure. This resource I propose to constitute social capital.

2.2 Dimensions and elements of social capital

While I now have located the substance of social capital it is time to start exploring it in more detail. While Nahapiet and Ghoshal (1998) offer a conceptualization of social capital that is free of the dichotomy and well describes these exact aspects or features I aim at finding, I will take their trichotomy of different dimensions of social capital as basis for my work. Researchers divide social capital into three dimensions, or clusters, which though are not mutually exclusive, but interrelated and divided into dimensions for analytical purposes only (p. 234). The three clusters are 1) the structural, 2) the relational and 3) the cognitive dimensions of social capital. The first dimension covers all patterns of connections between the actors, or straightforwardly put – whom one reaches and how one reaches them. The relational dimension on its part focuses on the particular relations people have, suchlike respect or friendship, and the nature of those relationships. The third dimension, labeled cognitive, includes all of those aspects that provide shared understanding, representations, interpretations and systems of meaning in a social unit. In addition to presenting the specific elements of social capital under each dimension defined by Nahapiet and Ghoshal, I will also attempt to classify the elements found by other researchers and locate them under these three classes, while from the literature, it is possible to identify a number of proposed conceptual elements that individually and together are believed to constitute social capital.

According to Nahapiet and Ghoshal (1998: 244) the most important elements of structural social capital are the presence or absence of network ties and network configuration. Authors cite the network configuration to describe the patterns of linkages consisting of measures such as density, connectivity and hierarchy. Coleman introduces a term of closure (1988: 105-108) to characterize how the structural side of the network can affect other areas of social capital. He cites that closure in a network is an important, but perhaps not sufficient, condition for the emergence of effective norms. It is also seen as an important prerequisite for sanctions, obligations and expectations. Granovetter (1973) writes about tie strength of dyadic ties especially emphasizing the power of weak ties on certain goals and ends, such as job mobility opportunities. Also Burt (1992) tackles the same phenomenon of job mobility labeling the source to be “structural holes” in a network stating that dense networks tend to convey redundant information and thus weaker ties can be sources of new knowledge and resources.

With regards the next class of social capital, the cognitive dimension, Nahapiet and Ghoshal (1998) mention shared language and codes and shared narratives as examples. Lesser (2000: 7) augments the list by adding a common context to it as well as different features of language such as acronyms, subtleties and underlying assumptions.

The last class, the relational dimension seems to have the greatest number of different elements compiled under it. A common notion belonging to this last dimension is the existence of norms as one constituent of social capital (Coleman, 1988; Portes, 1996; Sandefur & Laumann, 2000). Among different kinds of norms, especially a collectivist or a group norm is identified to be an important ingredient (Coleman, 1988; van den Hooff et al., 2004). With this particular norm also identification towards the group or its other members might arise and a common group identity be formed (Nahapiet & Ghoshal, 1998). Also a widely discussed topic is (a norm of) reciprocity (Lesser, 2000; Putnam, 1995) meaning the norm, that “I’ll do this for you now, knowing that somewhere down the road you’ll do something for me”. Though some authors have characterized reciprocity as part of social capital also meaning “I’ll do this for you now, knowing that somewhere down the road you or someone else will do something for me” or even as “I’ll do this for you because it is a right thing to do”. Adler and Kwon (2002: 25) have a comparable view: “reciprocity transforms individuals from self-seeking and egocentric agents with little sense of

obligation into members of a community with shared interests, a common identity and a commitment to the common good". Social solidarity by Sandefur and Laumann (2000: 78) is a likeminded aspect of social capital and according to the authors it can exist by fiat because of cultural values or norms or can be a product of repeated interactions among the same actors over time. Other identified elements of social capital include obligations and expectations (Nahapiet & Ghoshal, 1998; Coleman, 1988), effective sanctions (Coleman, 1988), friendships (Nahapiet & Ghoshal, 1998) and respect (Nahapiet & Ghoshal, 1998). In addition to these one or the main constituent of social capital is seen to be trust and trustworthiness (Lesser, 2000; Coleman, 1988). Though there is some confusion of the role of trust in social capital, while some equate it with social capital and some regard it as a source (Putnam, 1995) or an effect (Adler & Kwon, 2000) of it. Even though trust is a human state of mind, and thus could also be seen to locate inside the actor, there cannot be trust without a relationship. Trust is generated through human interaction and thus I believe it can rightfully be classified as an element of social capital.

Although I am not stating that these are all of the elements of social capital, I have listed all of the above-mentioned aspects into Table 1 below. This is not to offer a comprehensive list, but to give some prerequisite insights to guide me in my empiric work. While observing virtual environments the list might shorten or be augmented with more ingredients.

Dimension	Element of social capital	Author(s)
Structural	Presence or absence of network ties	Nahapiet & Ghoshal, 1998
	Network Configuration	Nahapiet & Ghoshal, 1998
	Density	Nahapiet & Ghoshal, 1998
	Connectivity	Nahapiet & Ghoshal, 1998
	Hierarchy	Nahapiet & Ghoshal, 1998
	Closure	Coleman, 1988
	Tie strength	Granovetter, 1973
	Structural holes	Burt, 1992
Cognitive	Shared Language	Nahapiet & Ghoshal, 1998; Lesser, 2000
	Acronyms	Lesser, 2000
	Subtleties	Lesser, 2000
	Underlying assumptions	Lesser, 2000
	Codes	Nahapiet & Ghoshal, 1998
	Narratives / Stories	Nahapiet & Ghoshal, 1998
	Common context	Lesser, 2000

Relational	Norms	Coleman, 1988; Portes, 1996; Sandefur & Laumann, 2000
	A collectivist or a group norm	Coleman, 1988; van den Hooff et al., 2004
	(A norm of) reciprocity	Lesser, 2000; Putnam, 1995; Adler & Kwon, 2002
	Identification and identity	Nahapiet & Ghoshal, 1998
	Social solidarity	Sandefur & Laumann, 2000
	Obligations	Nahapiet & Ghoshal, 1998; Coleman, 1988
	Expectations	Nahapiet & Ghoshal, 1998; Coleman, 1988
	Sanctions	Coleman, 1988
	Trust and Trustworthiness	Lesser, 2000; Coleman, 1988
	Friendship	Nahapiet & Ghoshal, 1998
	Respect	Nahapiet & Ghoshal, 1998

Table 1: The dimensions and elements of social capital

2.3 Social capital in online environments

As already stated, social capital in online environments is a relatively new research topic. More research on the matter is done in sociological field where research objects are often not companies but other groups in the society. While social relationships, interactions and motives for interacting are not the same in leisure time activities and work life, it is not clear whether research findings from other parts of the society can directly be applied to corporate life. Also rather than describing social capital, research has often focused on understanding what happens to offline social capital, while online interaction is increased. Virtual communities have been frequently speculated to increase, decrease, augment or supplement face-to-face social capital (Rheingold, 1994; Blanchard, 2004). Also the benefits derived from and caused by social capital have often been topics of social capital studies. These topics though are not as relevant to my study as the ones studying what social capital in virtual communities is. A handful of such types of researches can be found, though focusing more on non-corporate environments. Findings from these studies will be presented in this chapter. I will also present some analyses on the effects of virtualization for social capital and social interactions.

From the non-corporate environment studies a few longitudinal empirical researches can be highlighted. Syrjänen and Kuutti (2004) studied a dog breeding community, which was originally based upon face-to-face interactions and manual (paper based) maintenance of information.

Since the introduction of a community information system in early 1990s community has grown to nearly 2000 members. In their study, the researchers found that the most evident change was the information system aiding the formation of an infrastructure for social interactions through collective conversations, action and interaction space. This, researchers thought, could be seen to facilitate the creation of new knowledge and subsequently the formation of social capital. Other findings from the study were that the information system facilitated trust creation as well as supported the creation of shared language by unifying concepts. These factors made conversations and collaboration more fruitful for members. The fact that the virtual community in question was originated from face-to-face community makes this study an interesting one, while it was able to demonstrate the effects of information system and virtualization on community's social capital. Though Syrjänen and Kuutti do not propose a causal relationship, but rather suggest the information system to have facilitated the formation of new types of social capital by supporting communication.

Blanchard (2004) studies perhaps a more virtual community, while the community under analysis was a newsgroup for people interested in learning about and training for multiple sports competition (e.g. triathlon). The most common element of social capital found by Blanchard was the exchange of help and support – members used the newsgroup for asking for and providing help to others. This support seemed to be more related to seeking and providing informational resources. One interesting observation made by Blanchard related to the effects of virtualization on social capital, was that even though community consisted of active members and “lurkers” the active members being the ones contributing to the community the most, also many of the “lurkers” interviewed replied to have benefited from the public exchange of support. This feature is only typical for online communities, while lurking is not possible, or at least not likely in face-to-face communities. Because information is transparent and visible, a greater number of people are able to benefit from it.

Drentea and Moren-Cross (2005) researched an online support group for mothers using participant observation and discourse analysis. The most central element of social capital found from this community was support received from and offered to other mothers. Researchers found two types of support exchanged in this community – emotional support and instrumental support,

the latter being in practice information. Also strong norms were developed, which was demonstrated while inappropriate behavior in the community was experienced.

Studies about intra-organizational social capital are very scarce – much more theoretical frameworks than empirical studies exist and most of these models relate to information and knowledge benefits for the organization and the individual. Widén-Wulff and Tötterman (2010) propose that virtual social capital in organizations could be studied through the framework of Nahapiet and Ghoshal (1998). As examples of social capital, Widén-Wulff and Tötterman propose the following elements under the three dimensions adopted from Nahapiet and Ghoshal.

- Structural dimension: Social interactions in the structure constitute channels for information flows. The use of new social technologies gives a visible structure to this information sharing.
- Relational dimension: This includes trust, identity and roles as well as underlying motives for sharing resources. Researchers propose that Web 2.0 tools bring structure to collaborative processes and support possibilities to develop social relations
- Content dimension: This dimension includes shared goals, common experience, language and knowledge. Emphasis is put on shared meaning and collective knowledge. Researchers propose that out of these, Web 2.0 technologies especially promote creation of shared language and collective knowledge.

Also Bresnen et al. (2004) applied Nahapiet and Ghoshal's framework while researching learning in globally distributed projects. Elements of social capital that these scholars found included extended networks of social contacts, dialogues of shared meaning and the establishment of appropriate norms governing interaction. Van den Hooff et al. (2004) also found strong norms in their study covering knowledge sharing in organizations. They concluded that a collectivist group norm was found in intra-organizational communities and it was noted to increase people's willingness to share their knowledge.

Steinfeld et al. (2009) also studied intra-organizational social network, and as in my study, the object of study was selected from IBM. While Steinfeld et al. use a framework developed by

Williams (2006) for measuring social capital in online environments, before presenting the findings from this study, I will first present the measurement system. Williams believes that social capital in online environments cannot be approached with the same set of assumptions and measures as in traditional offline environments. Hence he developed and validated a framework for measuring social capital: Internet Social Capital Scales (ISCS). These scales are intended to measure two different types of social capital—known as bridging and bonding. This conceptualization of social capital is derived from Putnam's (2000) works.

Putnam's concepts of bridging and bonding allow for different types of social capital to result when different norms and networks are in place (2000). According to Putnam, these two types of social capital are related but not the same and not mutually exclusive. Bridging social capital is inclusive and occurs when individuals from different backgrounds connect. Bridging social capital derives from Granovetter's (1973) weak ties approach, while what the relationships lack in depth they make up for in breadth. Bridging hence may broaden social horizons and result in new information or resources, but also provide little in the way of emotional support. Williams states that social capital created in these types of networks "generates broader identities and generalized reciprocity" (2006: 600). By contrast bonding can be exclusive and occur in an environment of tight relationships. Individuals have little diversity in their backgrounds but a strong personal connection. Social capital found from these types of networks is often social and emotional support. This division suggests that the type of relationships within the social network can predict different kinds of social capital (Williams, 2006). Based on this, Haythornwaite (2002) speculates that networks created through new communication technologies are often these types of weak-tie networks. Williams proposes bridging social capital to be measured with following variables: Outward looking, Contact with a broad range of people, a view of oneself as part of a broader group, diffuse reciprocity with a broader community. Bonding social capital on the other hand would be measured with: Emotional support, access to scarce resources and ability to mobilize solidarity.

Steinfeld et al. (2009) took this measurement framework as basis for studying employees using a company internal social networking site. In their analysis, they focused only on individual social capital. Researchers found both types – bridging and bonding – based on the respondents'

answers. Bonding social capital was measured in questions about emotional support as well as other tangible support (such as a personal loan of \$ 500). Though majority of social capital found was characterized as bridging that was measured with questions related to ability to access expertise, interest in global connections, access to new people and corporate citizenship behavior. What Steinfield et al. found was that employees using the social networking site more intensively had higher social capital scores throughout both categories. The main finding from their analysis was that use of a social network service inside a company is associated with organizational and personal factors related to social capital.

While comprehensive studies of intra-organizational social capital are scarce, some authors have made interesting observations and hypotheses of the effect of virtualization on social capital (both inside and outside companies). Williams (2006) observed that online interactions can bring together very different people, crossing political, religious, gender, ethnic and age lines. This might also be applicable to corporate communities, while in large companies interaction between distinct hierarchies such as between a summer trainee and an executive often is not likely. Social software might flatten the organizational hierarchy. Another interesting observation is made by Parks (1996) while in his study of the members of 24 different newsgroups he found that more than 60 percent of research subjects said they had formed a personal relationship with someone they first contacted through a newsgroup. This indicates that not only is it possible to create close relationships online, but it is also likely. The last proposition about virtual social capital is related to norm development in an online community. Blanchard and Horan (1998) make an interesting observation about norm development in online communities, while they detect that single acts of help are visible to the whole community, while in face-to-face communities those acts of good deed might easily have left unnoticed.

3 Virtual Communities inside the Company

The concept of community seems to have undergone some sort of a recession while it is often used too incautiously even in the academic literature (see for example a critical analysis by Brown, 2002). Jones (1997) also makes a notion of the two dominant, but contrasting uses of the term; the first equates virtual communities with various forms of computer-mediated communication, while the other states that virtual communities are new forms of community created via usage of various forms of computer-mediated communication. One clear reason for not being able to provide a commonly accepted definition of a community is that even though the phenomenon is widely researched and written about, only a small amount of researchers have attempted to properly define and conceptualize it (Fernback, 1999). Mannarini and Fedi (2009: 212) even go as far as to state, that “defining the meaning of community seems to be, at present, virtually impossible”. For these reasons I will not focus much attention on the actual definition work but instead in the chapters to follow I will aim at finding a set of characteristics that describe a virtual community, and at finding ways to conceptualize and explore these communities in order to help me in determining whether these virtual social aggregates inside IBM could show some traits of communities.

It seems that especially after the introduction of the concept of a virtual community, the use of the community term has loosened substantially. This might be the case but Srinivasan (2007: 724) proposes that the concept has shifted via the emergence of information systems that allow user participation. Perhaps we ought not to try to fit virtual communities in the conceptualizations of a traditional community, or try to compare the two, but rather to define a virtual community separately from the traditional one. Because of the different environments of traditional and virtual communities it is apparent that the conceptualizations cannot, nor need not, to be identical. Though regardless of this, a loose definition will only guide us to “a virtual wonderland” where everything is possible.

At least the two following things can explain the widespread use of the word community. Firstly researchers often base the use of the concept on the ideal or desired state of the organization rather than analyzing an existing reality; the use of the term in these kinds of situations can be

considered to be *aspirational* (Courtright & Kling, 2003: 224-225). Many researches can be thought to have these aspirational characteristics in their description of a community, while empirical evidence is often replaced with citations of previous aspirational definitions. I am not stating that this kind of usage of the term is always unwelcomed, while it sometimes can motivate change from current situation, but this kind of empirical inaccuracy is not desirable for academic literature. The extent to which a group develops certain desirable community like characteristics should be based on empirical observation rather than on assumptions or aspirations. (Courtright & Kling, 2003: 221).

Secondly, many researchers often focus on the individual while defining a community and rather than defining some characteristics for the community as a whole, they define the “sense” or the “feeling” of community (e.g. Wand et al., 2004; McMillan and Chavis, 1986). Courtright and Kling (2003: 225) do not consider this approach to be analytical enough but on my opinion it is rather a question of two different, but supplementary, perspectives, both of which are needed and relevant. Community as a phenomenon, as a certain type of organization, can be examined *to a certain extent* from outside based on certain criteria. This approach enables comparison of different communities or non-communities. But defining a community through participant’s eyes is no less good or less right, but rather offers a different perspective on a same phenomenon. Thus I will try to utilize both of these in my work first developing a set of criteria for a virtual community against which, or to some extent with the help of which, I will interpret my observations and empirical findings. Also later on I will utilize the concept and theory of sense of community and seek to collect members’ opinions and feelings of the social aggregate they belong to.

3.1 “Observable” characteristics of virtual communities

Sociologist Stephen Brint has done an extensive work on analyzing sociological community theories and reviewing empirical studies. Brint (2001: 8) defines communities as “*aggregates of people who share common activities and/or beliefs and who are bound together principally by relations of affect, loyalty, common values, and/or personal concern*”. It is worth noting the word *principally*, while Brint acknowledges that this does not need to be true in every instance and also makes room for also e.g. economic motives for community interaction. Brint (p. 3-4) also

identified six dimensions commonly characterizing a community: (1) dense and demanding social ties; (2) social attachments to and involvements with institutions; (3) ritual occasions; (4) small group size; (5) perceptions of similarity with the physical characteristics, expressive style, way of life or historical experience of others; and (6) common beliefs in an idea, a moral order, an institution, or a group. Brint notes that few groups share all of these characteristics simultaneously.

Instead of analysis of the generic community concept Brint puts more emphasis on classifying communities in structural subtypes. Among these 8 subtypes also virtual community as well as an “*imagined community*” exist. Even though different community variables differ greatly among these eight communities, Brint accentuates that common experience, ties of affect and loyalty and personal interests in one another, rather than formal authority and rational interests, connect members in each of these community subtypes. Brint describes this common variable for all communities as fraternalism and mutual support, that involve e.g. the development of interpersonal obligations and practices of mutual support, friendly feelings toward those members of the community with whom each individual is in most frequent interaction, a strong, self-conscious connection with the community and knowledge and appreciation of the individual personalities of members of the community (p. 14-15). It goes without saying that this main feature of a community seems unreachable for virtual organizations with more than thousand members. Brint also states (p. 9) the same asserting that even though the sense of community can be reached and experienced in aggregates of as many as tens of thousands, the true communities are relatively small of size. With regards other community variables Brint (p. 13-14) presents a hypothesis of virtual communities to vary greatly in their member participation, levels of mutual support and common value creation and personal adjustment to those, while identification to the community is often strong, traditions, rituals and histories often short lived and often constraints on pursuit of personal interest do not exist. Based on these requirements it seems very unlikely that a community in professional and purely virtual environment could emerge.

Haythornthwaite et al. (2000) also found six characteristics describing communities, in this case virtual ones, while studying a distance education course. The traits discovered were: recognition of members and nonmembers, a shared history, a common meeting place, commitment to a

common purpose, adoption of normative standards of behavior, and emergence of hierarchy and roles. In this case the community formation can indeed be possible, while the group is relatively small and has had an advantage of meeting face-to-face in the beginning of the common journey on a week long “boot camp”.

A vast amount of somewhat easy definitions of virtual communities can also be found. Porter’s (2004) demands for virtual communities are interaction around shared interests and behavior guided by some protocols or norms. Ridings et al. (2002: 272) only insist on common interests and knowledge sharing to classify a certain virtual aggregate as a community. The most cited definition falls in to this same class. This was given by Rheingold (1994: 57-58) articulating virtual communities to be “social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feelings, to form webs of personal relationships in cyberspace. A virtual community is a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks”. At first this definition sounds very competent. But frankly, this definition does not seem to make a distinction between different types of organizations that could be groups, hangouts, associations, fan clubs and the communities themselves (Courtright & Kling, 2003: 225). The definition also seems to fit adequately well for describing virtual social networks from which I wish communities to be distinguished. The main characteristic of a community – the one that essentially makes a group a community – cannot simply be signed off by “*sufficient human feelings*”.

Some more characteristics for a community can be found from a research conducted by Mannarini and Fedi (2009: 212) who sum up commonly accepted community characteristics that also seem to fit well to virtual environments. They propose a community to have (1) high levels of interaction, (2) common interests, as well as (3) identity and shared values.

In my classification of virtual community I do not want to depart too far from the traditional community literature and definitions in order not to lose its original meaning only for the sake of finding a popular word to describe the phenomenon I am examining. I feel that traditional conceptualization does need some amount of modernization because of the new media introduced in the late 20th century allowing richer interaction in cyberspace. Ridings et al. (2002: 272) state

that a good deal of modern community literature calls for the traditional meaning of community to be expanded beyond the notion of physical space and the authors wish communities to be treated rather in terms of social networks or social relationships. Fernback (1999: 209-210) is of the same opinion with previous authors asserting that community should be studied as an entity of meaning rather than an entity of space. According to Fernback this is because communities have symbolic meaning and due to this symbolism, the importance of substance exceeds the importance of form for a community.

Fernback finds the essence of community in commonality for example in the form of common interests (1999: 204). He sums up some previous work stating that cyber communities are characterized by common value systems, norms, rules, and the sense of identity, commitment, and association (p. 211). Fernback also asserts that some of these “devices for sustaining community” can be empirically observed in virtual communities in the form of e.g. language, rituals or cultural memories a.k.a. legacy (p. 214).

After presenting some of these criteria for a group to become a community I still need to look closer to the individual viewpoint to community, the sense of community, and analyze how these two are interlinked in order to draw conclusions for how one really can or ought to research whether some virtual social networks can be given a community courtesy title. In the next chapter I will analyze literature around the sense of community after which I will aim at finding a meaningful place for the two different viewpoints in describing the same phenomenon.

3.2 Sense of community

Many authors equal definition of a community to term “sense of community” (e.g. Blanchard & Markus, 2004; McMillan & Chavis, 1986; Ward, 1999). Blanchard and Markus (2004: 69) claim that when this feeling of belonging and attachment is present in a virtual grouping, it can be called a virtual community. They continue stating that in this a number of social processes and behaviors, such as providing support, developing and maintaining norms and boundaries, should be present.

This might be true, if all the members think alike – perhaps then the group in question truly is a

community. But there might as well be communities where all the members do not feel belonging or identify with the group – communities might have discrepancies, disputes or power hierarchies, but regardless, act as a community. Conversely there might also be members who feel as if they belong to a community, even though the group in question might not fulfill the criteria of a community. In the latter case community in question might be in Brint's (2001) words an "imagined community", described above. Whether we believe that a community can be recognized through finding enough sense of community or, as I propose, that the two ways of inquiring into communities are supplementary, does not make a difference, while in both cases we anyhow must split the term sense of community into smaller, more concrete pieces in order to retrieve answers. With a word so widely used in lay context we cannot go about asking people whether they feel to belong to a community without specifying the question further.

Sense of community (SoC) has been defined by McMillan and Chavis (1986: 9) as "a feeling that members have of belonging ... that members matter to one another ... and a shared faith that members' needs will be met through their commitment to be together". This definition is one of the most cited ones and widely accepted in the sociological literature. Other definitions can be found e.g. by Rovai (2002: 321), who underlines "mutual interdependence among members, connectedness, trust, interactivity, and shared values and goals" as sense of community. Also Unger and Wandesman (1985: 155) do their bit in defining sense of community following: "feelings of membership and belongingness and shared socio-emotional ties".

Even though – once more – there is a great deal of definitions, the work of McMillan and Chavis seems to give foundation to a considerable number of concurrent sense of community research and literature. But this surely is not only because of the definition itself, while McMillan and Chavis have also developed a framework of constituents of sense of community. This framework consists of four dimensions of SoC and the processes and variables they arise from. While there is a relatively strong agreement of these dimensions (Blanchard & Markus, 2004: 69) and the model still, after 20 years remains the main theoretical grounding for most studies on SoC, in addition to which is has received support from empirical research (Mannarini & Fedi, 2009), I feel secure to ground my own community research on this particular model.

The framework has four dimensions: 1) membership, 2) influence, 3) support and 4) emotional

connection. I will describe each of these more explicitly below.

- *Feelings of membership*: feelings of belonging to, and identifying with the community. McMillan and Chavis state this feeling to be caused by boundaries of the community, perception of emotional safety, personal investment of time and common symbol system.
- *Feelings of influence*: feelings of having influence on, and being influenced by, the community. The emergence of this dimension is caused by the continually ongoing process of maintaining and negotiating norms in the community.
- *Integration and fulfillment of needs*: feelings of being supported by others and also simultaneously supporting them. These feelings are caused by intrinsic rewards of being a member in the community e.g. status within the group, competence in functioning in the group and meeting other's needs while having one's own needs met.
- *Shared emotional connection*: feelings of relationship, shared history, and a "spirit" of community. The sense of shared emotional connection develops from frequent and/or high quality interaction, shared history and crisis, investment of time and resources, honor and humiliation and spiritual bonds.

More important for the research itself are the actual dimensions of sense of community rather than their origins. But what seems to be interesting in this framework is that many of the causes behind these feelings actually appear also in Table 1, where dimensions and some possible elements of social capital are presented.

3.3 Integrating the two viewpoints

It is clear that these two different views to communities interlink, but what exactly is the relationship? Fernback's (1999: 213) notion of socially constructed reality aids in understanding the connection: "Just because we can't see "it", doesn't mean "it" doesn't exist ... community exists in the minds of participants; it exists because participants define it and give it meaning. This doesn't mean that the community exists solely in the minds of the participants but in the connections between what social constructs the user imagines ... and the ... representations of

those constructs”. Thus Fernback is saying that both exist simultaneously; sense of community and the representations that are created while people act upon their feelings. Both viewpoints exist and are meaningful, and while combined, complement each other in a way that can help the researcher better to understand life in cyberworld.

Now while the so-called ideology for this part of the research has been laid out we need to but the pits and pieces together. As already stated in the chapter above, I have chosen to use McMillan and Chavis’s framework to dig deeper in the sense of community component, but we still need to answer the question of whether there could be some “checklist” for the observable community representations to aid in my own research on communities.

Brint (2001) listed six community characteristics also stating that they would rarely all be visible simultaneously in one community. Thus it might be delusive to judge groups of people based on certain predetermined one-size-fits-all criteria. While usually not being a great supporter of describing phenomena in one phrase this time I will define my “threshold” for a community leaning on Brint’s (2001: 8) definition: “aggregates of people who share common activities and/or beliefs and who are bound together principally by relations of affect, loyalty, common values, and/or personal concern”. This is to say that unless the two aspects are not fulfilled one is on the weak ice to manifest that group to be a community. Hence the members of community share either *activities and/or beliefs*, or as many other authors have phrased the same; *interests*. In addition to this, the main reason to interact and stay together is not based on self-serving motives, but rather on altruistic ones such as loyalty, values and norms.

Some features that can also be expected (but not necessarily demanded) of a community, based on the literature analysis on chapter 4.1.1, are:

- Relatively small group size and/or dense and demanding social ties
- Social attachment to the group (sense of community)
- Recognition of members and nonmembers
- Norms and adaptation of normative standards of behavior
- Hierarchy and roles

- Identity
- Shared history

4 Online social capital – A qualitative case study

In previous chapters I have presented my research topic and specific research questions as well as presented previous findings. I have also gathered information of the possible elements of social capital and formed a “checklist” for a community. In this chapter I aim at answering my research questions of whether this selected virtual Community can rightfully be called so and what is the social capital that is present in this Community. Firstly I will present the case community selected for the purposes of this research. The second part of this chapter will then present the methods used for the field study and Chapter 4.3 will then present the results of the field study.

4.1 *The case community*

For the purposes of my study I chose to select one active online social network from a large multinational corporation. I will first briefly present the company in question, then give a more overall description of these online social networks that at IBM are called Communities and lastly I will describe the Community chosen as an object of this study.

4.1.1 International Business Machines (IBM) in a nutshell

International Business Machines, abbreviated IBM, is a multinational computer, technology, IT and business consulting corporation based in the United States. The company has existed and operated in business-to-business markets nearly a century and currently has approximately 400 000 employees worldwide with scientists, engineers, consultants, and sales professionals in over 200 countries. Opposite to the still common belief a large majority of revenue comes from services, not computer hardware sales. What makes IBM an interesting object for research is the extent of global integration in the level of processes, practices and people – experts working in same areas do communicate with each other across countries and continents. Working in the field of IT and business services also means that the work is to a large extent knowledge intensive and a vast majority to employees can be classified as so called knowledge workers. The work often shares similar characteristics and challenges across geographic units, which makes effective communication and collaboration even more important.

IBM has a large research and development workforce and new innovations and software products are constantly introduced. An interesting phenomenon from the perspective of this research is that through an internal technology adaptation program for early adopters inside the company, these tools become available for internal usage at a very early point in the development cycle. Consequently, while people who are active in online environments often equal to the early adopters of technology, the members of IBM's virtual communities find that they have a vast selections of collaboration and web 2.0 tools in their usage. New tools constantly keep making the communication online richer and more convenient in comparison the "old" only text based communication platforms.

Social Software adaptation at IBM is maturing due to its long history, which makes the company an ideal laboratory for this type of a research. IBM employees consider their company as a showcase for social software usage and its benefits in corporate environments and often talk publicly about the current state of social computing at IBM. While the development in this area clearly lags behind in Finland in comparison to the US and UK for example, the ongoing communication and integration, regardless of one's geographical location, allows a researcher from a relatively small country such as Finland to easily tap into the life in this online world.

4.1.2 Online Communities at IBM

Before presenting the one Community I have immersed myself into, I will try to set the ground by presenting the history and current state of IBM's Communities in a more general level in order to raise awareness of the larger picture this one Community belongs to. Information presented in this chapter relies on many sources including IBM's internal information resources such as wiki sites, blog posts, corporate intranet among other as well as some publicly available resources such as podcasts created by IBM employees. Historical information has also been achieved from discussions with co-workers who have been with IBM since the beginning of social computing as well as from discussions with some senior research personnel involved in many Community related research projects.

According to many sources, the history of online Communities inside IBM can be traced back to the 1970s with something called VM Forums. VM (Virtual Machine) was a mainframe operating

system at that time and internal forums operated almost as news bulleting boards allowing people to go into the boards on the VM system and leave messages to each other. People who were active in these forums did not cite themselves as communities at the time, but there was a noteworthy amount of voluntary collaboration and knowledge sharing happening. A person would over time develop a sense that they were following a specific forum and the forums again were organized around different topics of interest to the forum goers. This phenomenon continued and developed for two decades and even in the present day IBMers are active forum users, though the platform has been modernized.

The next important development was in the early/mid 1990s when IBM's Global Business Services unit was focused on a concept called knowledge networks. This concept was about people being able to get together based on discipline and share their intellectual capital. At that time intellectual capital was considered to be certain types of explicit deliverables such as documents and presentations. These could be registered to an intellectual capital management system. This type of thinking clearly represents the objective view on knowledge where it is believed that knowledge is objective and so called tacit knowledge can be transformed to explicit knowledge (Hislop, 2005: 27). These Knowledge Networks were internally cited as Communities of Practice. The first step in official community development towards a more practice based view on knowledge, where knowledge was seen to reside in people, to be socially constructed and to be multidimensional (Hislop, 2005: 27) came along with the introduction of Notes (an IBM technology) based discussion threads where people created categories to talk about sharing their knowledge related to projects they were working on and asking questions and helping others. Knowledge networks continued through the 90s and until around 2004 when they lost funding. This did not stop the phenomenon though while people migrated to use other technologies instead.

There was a clear gap still in the systems available while there was apparent need to support voluntary electronic communities of workers who span organizations and more formally constituted teams. "These communities are different from conventional functional organizations, because they are composed of people from multiple, sometimes unrelated parts of an enterprise -- or from multiple enterprises. They tend to be self-organizing. They are frequently less authority-

driven and more democratic than other organizational entities, because participation is usually voluntary.” (Carotenuto et al., 1999). Also some active community members and builders felt that there would be a need to openly declare that there is this kind of a Community operating and collaborating to make it easier for people to find it and join the Community.

The next big change came when Matt Simpson from Lotus Institute came up with an idea of CommunityMap that started with an idea of giving every Community in the company an internally public profile. Later on the solution also provided an opportunity for membership management where joining a Community was only a one click of a button away. In addition, email distribution management was also introduced. This change made all IBM’s Communities, that had existed already for long, visible for everyone to browse and to join. In their profiles Communities could display the whole list of members and also describe the ways the Community operates and communicates. Amongst the most remarkable changes brought about with this tool were that all the Communities could now be located in one place and that now also lurkers could be identified by name while previously only the active contributors were visible. At the time of me joining IBM at early 2009, CommunityMap was listing roughly 5000 different Communities.

The next important step made Communities even more open to everybody, while an application called Lotus Connections was introduced three years ago and became the main platform for online collaboration in 2009. This application has a Community space solution that allows the same functionalities as CommunityMap and also offers the means of communicating all under this one application. Communities have their own space where they can introduce Community blogs, forums, wikis, documents, social activities and social bookmarking and nowadays also pictures, videos and Community events. Hence now not only the existence of the Community is visible to all IBM employees but also the discussions and all the resources can freely be used by anyone in the company – be it a Community member or an outsider.

At present, Communities are numerous and vastly different. At the start of my empirical research, in early January 2010, there were 7098 publicly listed Communities. Though this figure is misleading, while a surprisingly large part of these are Communities that do not exist anymore or never even got started in the first place. Membership amounts vary remarkably. The biggest membership amount in one Community is over 20 000 members, while there also are many

Communities with around 20 members. These are usually organizational teams using this tool for their benefit and are not relevant to this research. As of 12.2.2009 340 Communities had 500 or above members and only 486 Communities exceeded the limit of 300 members. Some large Communities had sub communities organized under them to discuss more detailed topics. At the time of writing this at the end of March 2010 the amount of Communities had increased by nearly two thousand which is partly due to sunsetting CommunityMap and migrating Communities to this new platform but also demonstrates the increased interest in social computing and its accelerated adaptation.

Most of the current Communities are open for everyone to join but there are some that do select their members. It might be that one needs to request to be added to a Community or there might even be formal election processes for Communities that use, for example, peer recognition as a criterion for acceptance. Academy of Technology –Community gives an example of this stating the following: “Members are elected to the Academy by their peers in recognition of their technical excellence and leadership. Membership is an honor, but also carries the responsibility to engage in Academy-sponsored activities and to promote technical growth IBM-wide -- in addition to ones regular job”.

I will describe the communication and interaction between members in more detail while presenting the case study, but it could be mentioned already now that ways of communicating vary between Communities. Most communities use the basic methods offered by the solution in place (blogs, wikis, forums, document sharing, bookmarking) but to a different extent. While some Communities rarely engage in lengthy conversation in discussion forums, some forums experience activity at an hourly level. In addition to the tools provided, members might use emails, different databases, instant messaging, chat services, teleconferencing or telephone, electronic meetings or even face-to-face meetings as well as get together in conferences and in workshops, though interaction mostly happens online.

Each Community also seems to have their own identity – some even have a mission. A few Communities name themselves as Communities of Practice while others term themselves Communities of Interest. Communities are also organized around a diversity of topics. Some are organized around a certain product or product groups (mostly software products), in others the

members share a same profession or profile in the company. There are also Communities for more general topics such as open source computing or future trends. Other possible topics of interest can be specific IBM Frameworks and methods, particular industries, large events, different technological platforms, specific projects, internal development initiatives, geographical location or learning and courses. Also non-professional Communities can be found based on for example environmental interests, gender, religion or hobbies. This category would also include Communities that offer support for e.g. working mothers and fathers. One observation made while familiarizing myself with the Communities at large was that there were none that would be so called radicals (Meyerson, 2003) who openly oppose a certain prevailing practice or way of thinking.

As can be seen, there were many groups or Communities to choose from while finding a suitable object for this study. I ended up in selecting only one Community that could perhaps be called a Community of Practice or even a Community of Passion (Carotenuto et al., 1999). In the next section I will present this Community.

4.1.3 Blue IQ Ambassadors Community

I chose to select only one Community to study in order to gain more comprehensive understanding of the life in this Community. Selection criteria for an appropriate Community included: active participation from members, sufficient critical mass of members, a long enough history (from at least one to two years) and an interesting topic around which the Community was formed in order to facilitate my own participation and understanding and, to an appropriate degree, absorbing some cultural aspects of the Community. Even though I scanned a number of public (open to all IBM employees) Communities in search of a perfect empirical platform, I ended up selecting one of the Communities already familiar to me because of its suitable fit with the above-mentioned criteria.

The Community selected is called BlueIQ Ambassadors and is centered on the idea of promoting social software adoption inside IBM. BlueIQ differs from the majority of IBM Communities, while behind the Community there is also an official internal development initiative. BlueIQ Program was established at the end of 2007 to:

- Showcase for the business benefits of IBM social software, in both internal and external use, to help employees learn about it, get productive with it, connect to communities with it, and share it with other users, clients, partners, and press.
- Operate as a living lab filled with the latest social software tools and programs, education and advice, marketing materials, and success stories.
- Offer a starting point for quickly and easily making the most of social software - and sharing best practices and success stories - as an individual, member of a collaborative team, or member of a social-networking community, or BlueIQ ambassador. (From the program internal wiki site)

The Community in question is only a part of the development initiative and is intended to be the meeting place for “Ambassadors” – people inside IBM who are willing to learn about these new tools and new ways of working, and on a voluntary basis share their knowledge and promote the message to other employees inside IBM. Being a part of an official development program, means that there are resources and people facilitating the ambassador Community. This might be one explaining factor behind the healthy state of the Community.

BlueIQ Ambassadors Community (shall be called simply BlueIQ from here onwards) currently has around 1000 members. As described in the above chapter, membership is self-defined the way that all members have self-selected themselves and joined the Community in the community space by clicking the “Join Community” button. While simply joining this Community does not guarantee participation, the active membership crew does not equal the official membership count. Unfortunately there is no statistical data available of the active members of this Community and hence statements related to the actual size of the Community must be based on estimations. BlueIQ program has a core team of nine members who also operate as Community owners. In the community site, the Community describes itself as follows:

“BlueIQ Ambassadors are social software enthusiasts who help IBM individual employees, teams and communities with using social software. We seek to build a worldwide community of social software evangelists who are passionate and want to learn more about social networking, and

who can volunteer their time and talent to energize and enable every IBM employee in order for him/her to benefit from using social software, both internally and externally.”

4.2 Methods

Since my aim is to understand and explain a complex social phenomenon I would not feel at ease if I was trying to take my research away from the place and time of its occurrence. I consider inquiring about the passage of members' daily lives to offer more shallow descriptions than observing them experience it and even experiencing it myself. On my opinion the issues of interest to me are best to be studied at their natural state and in the context to which they are embedded. I also feel that the concept of social capital, as complex as it is, and everything that comes with it is best understood if it is experienced, not only asked about.

Many researchers back the idea of using virtual ethnography while researching social phenomena occurring in cyberspace. Hine (2000: 10) claims this particular methodology allows the researcher to gain a reflexive understanding of what it is like to be a part of the Internet. Fernback (1999) emphasizes the symbolic nature of online communities and regards a grounded theoretical approach, such as ethnography, to offer the most efficacious way to address social issues occurring in these aggregates. Ward (1999: 99) even goes as far as to declare cyber-ethnography the only conceivable way for reaching an accurate presentation of a virtual community. While conducting ethnography would require a longitudinal engagement, not suitable or possible for this work, I have selected to use various qualitative methods drawing influence from ethnographic studies.

The greatest appeal to me in selecting this particular method of research is in its feasibility to capture the richness and complexity of social life that might not be captured with surveys or organized interviews. Hine (2000: 42) summarizes the wonders of ethnography stating that “It offers the promise of getting closer to understanding the ways in which people interpret the world and organize their lives”.

4.2.1 Methods used during the field study

I conducted the fieldwork during a three months period from beginning of January 2010 to the

end of March drawing influence from ethnographic principles and methods. During this period I followed and participated in various activities and discussions and interacted with my informants (Community members) using diverse communication methods. Engagement to the community in some way and level was almost daily – be it discussion with members some days or simply following the latest news form the formal community space or browsing through community’s knowledge repositories the others.

My main research method was participative observation. I started out as a less visible member taking part in Community calls, following discussion forums and just simply seeing what was going on. I could well be characterized as a lurker for the first month or so. More extensive participation came naturally with time. I started commenting on other’s posts and sharing bits and pieces of knowledge I had learned from other sources that I would think the other members would benefit of. While doing this I started to consider myself as a BlueIQ Ambassador and also made this explicit in interactions, while I noticed citing myself as a fellow ambassador while discussing with other members. This mental shift allowed me to really experience the Community life myself and to be able to treat myself as an informant through self-reflection.

Even though from time to time I communicated with other members related to the actual focus of the Community asking help of giving my views on different topics, the most part of the interaction was in the role of a researcher. I contacted members directly presenting my work and myself and asked if they would have time to discuss these topics with me. Discussions were had either by using instant messaging, Internet calls or a phone. This allowed me to hear views of many types of members, the true enthusiastic, newer members or people who had not participated actively. I had individual discussions with around 20 community members as well as participated in one core team weekly call as an observer and had a chance to engage in a conversation with the community’s leading characters. These more formal discussions could be called unstructured qualitative interviews, while other interaction was simply part of the everyday life in the community.

As an additional way to gain insight into the Community I tried to simulate focus groups in Community’s forums starting discussion threads around the topics of interest to me to get the members to critically reflect their practices together. This attempt, though, was not a success and

did not lead to a rich forum discussion and self-reflection. During the course of the research I also analyzed a lot of text based communication in blogs, forums and individuals' profile boards trying to identify certain metaphors, stories or behavioral patterns, to find meaning behind the words and understand the reality these text are constructing and representing. From these texts I tried to achieve insight into the ways members see and define themselves.

While I used terms such as Community's home, site or Community space, it is worth exploring this terminology further. Hine (2000: 64) discusses the concept of a field site in online ethnography. She notes that if it is not self-evident how community and culture are located the ethnographer should focus more on flow and connectivity rather than location of virtual space. Hine also warns ethnographers to assume boundaries *a priori*, but to explore them through the course of the research. While embarking in this journey I was conceptualizing location too narrowly. I assumed that everything going on in the Community would be happening in this one site, an online space one could say. I took for granted that discussions would be had in the discussion forums, knowledge sharing and seeking using blogs and document sharing in the Community and that this site could provide a clear, accurate presentation of the Community. I of course was as mistaken as one could be. During the course of the field study I started following flows and connections as Hine proposed and found that a remarkable amount of relevant and interesting interaction was happening outside the actual Community site. Hence I started following people and seeing where they went and with whom they interacted with. For this I used a feed reader available through IBM's technology adaptation program where one can order feeds of all the online interactions of a particular person – status messages, comments on other's messages, public bookmarks, blog posts and comments and discussions on various forums. Even though the idea might be somewhat daunting, it is very tempting for a researcher. I was able to see whom members interacted with, where they went in addition to this one Community, what they wrote about and where. While the Community membership counts up to one thousand I surely was not able to follow each and every member, but regardless this way of working offered me new insights I would not have been able to achieve had I been fixed only on one place.

In addition to the above-mentioned methods I also sought after for artifacts and analyzed their meaning and use. While cross-checking one's own interpretations has been considered to be an

important way of to increase the validity of ethnographic reports (Hine, 2000: 21-22), towards the end of the field study I contacted some of the more active Community members to discuss my findings with. In addition to crosschecking this allowed me to still gain new insights and develop the ideas further.

4.2.2 Analysis of the data

Data from various sources was gathered and included field notes based on observation, nine recorded Community calls (most including back channel chat in textual format), eight recorded interviews, 10 saved instant messaging discussions and two email answers received from Community members. All the data was analyzed using techniques from grounded theory. Analysis process was a gradual and cyclical process in which I first abstracted themes from the data and categorized different types of social capital. In practice I was categorizing different themes found from informant interviews, textual communication and community event under distinct elements of social capital. Also techniques from discursive analysis were deployed to analyze textual discussions and other texts in community resource site.

The process was cyclical in a way that after initial categorization further research was undertaken until the categories were saturated and it became clear that enough data supported the statement of existence of certain element of social capital. After the elements of social capital were found, more analysis of the data was undertaken combined to better understand the complex relationship between social capital and community. This analysis mainly compared the data with existing theoretical frameworks attempting to find proof for describing the relationship.

4.2.3 Researcher as a community member

Qualitative methods have often been subject to critics from “the harder sciences” challenging them in objectivity and validity (Hine: 2000: 41). Hence I feel obliged to comment on these concerns and also make visible my own background and starting point for the study.

The legitimacy of the observations and resulting analysis are a direct function of the researcher’s ability to immerse him or herself in the world of those being observed (Thomsen et al. 1998). Researchers continue that in order for this immersion to be possible the ethnographer needs to

participate for an extended period of time. He or she must effectively gain membership. Goffman (1989: 125) continues on the topic stating the prerequisite for immersion to be the ability to subject oneself to members' life circumstances and to become a part of the group under study. The goal, Goffman explained, is to be "close to them while they are responding to what life does to them".

This true immersion was something I was aiming at in my research. Even though I never became as active a member as the "masters" I was able to immerse myself to the culture or better said – to let the culture immerse me. I started thinking similarly with "them" and acting as "they" do. I was able to feel their worry at a time of a crisis and also act as they did. I celebrated good achievements with them. Now if I truly became one of them, how was I supposed to objectively report what I experienced? Objectivity is not the goal of ethnography, nor is it even possible if ethnographic research is conducted properly. Though while not requiring myself to be objective, I am requiring myself to be far enough to report my findings in an understandable manner but close enough to be able to interpret those findings. The challenge is to keep in mind my role as a researcher and not be blinded by my own participation and my own views. To help in this, many ethnographers recommend crosschecking own interpretations and exploring developing ideas (Hine, 2000: 21-22). By crosschecking my own assumptions as well as talking to many informants I believe to be able to conduct a qualitative study that is – not objective – but epistemologically valid.

Another way to increase the validity is to make explicit the assumptions that I took with me to the field. Hine (2000: 5) claims that these assumptions can either be reinforced or rejected with the growing familiarity of the settings. Hence I will try to articulate possible factors in my background that could be causing prejudgments to take with me to the field. It is necessary to point out that during the whole research I have also been employed by IBM. My employment had lasted for one year before I embarked on the field study journey. While I had been moderately active in the internal online environment already before my study, it might be that I was not able to analyze Community's activities through fresh glasses and hence some underlying assumptions might have been left unnoticed in comparison to an outsider doing a similar study. The same goes with my participation in this particular Community, while it was not entirely new to me and some

things I might have taken for granted from the beginning of the field study that I otherwise could have questioned.

Before starting the field study I did indeed have hypotheses about what I would find, even though this should not be the case for an ethnographic like study. They were not written ones, but none of the less I did have them. I did expect to be able to find a community online – a community that would even meet the sociological claims. I also expected to be able to find substantial amounts of social capital in this Community and also expected to be able to find many different types of it, though supposed the majority of it to be focused around knowledge and information. I can say though, that yes – some of these statements were enforced during the course of the field study, but I also had to admit that in some assumptions I simply was wrong. Therefore by being conscious of my own biases during the course of the study I believe to have been able to leave behind my assumptions and really listen and observe.

Another thing worth discussing is also the nature of this Community. While Community members are organized around the topic of social software usage, which also is the primary method for communicating and the foundation for the existence of all IBM's online Communities, this Community will surely not provide the common view of all IBM's Communities let alone all intra-organizational virtual communities. This though has never been the purpose of this research. While the purpose was to deeply understand the online practices and the life of a community in order to also estimate the potential value of these types of communities – for individual and for companies – I wanted to select a well functioning Community and it is no surprise that I found one consisting of members who are interested in using new ways of interacting and new tools in doing so, while the usage of these tools is still not remarkably wide spread even inside IBM. This selection was also due to the requirement to find a Community centered on a topic of which I am interested in and able to learn more on to be able to experience the actual membership in a Community. Selecting for example a well-functioning Community of managers or very technical IT professionals would not have made sense while I am not a manager nor understand the deeply technical side and so would not have been able to identify with the Community or with its members.

4.3 Results

When I started the fieldwork I assumed to be researching only one Community that could easily be separated from other roughly 9000 Communities and analyzed in isolation. But when I took on Hine's advice and started following flows and connections I found that I had gotten myself involved with something larger than this one, still a relatively small Community. I found that these new paths took me to other places where Community members had their discussions and most importantly they took me to other Communities. I suddenly noticed that instead of one individual Community, I was researching a net of Communities with complex relationships. So while there are few Communities that are dealing with similar kinds of topics as BlueIQ, it became clear that membership in these Communities overlaps remarkably. Even though they are all focused on similar kinds of themes, they all have a specific niche mission or an interest and are used for different purposes by the members. Hence it became clear that I could not close my eyes of these other related Communities, but their existence had to be accounted for. Borders of BlueIQ Community became even blurrier. While people crossed borders, also cultural aspects, resources and behavioral patterns seemed to have crossed with them.

Because of these findings made during the course of the fieldwork I decided to broaden my unit of analysis to somewhat discuss the community issue as well as social capital also in a wider context than just in one Community. Surely there are some aspects characterizing only BlueIQ in comparison to these other Communities members interact in, but a number of the findings do not seem to apply to only this one Community, but rather a larger group of related or unrelated Communities.

While on this journey I also noticed that what is behind my computer screen seems to be a different world from where I live in at my local office. For three months I lived in this "other IBM" and became so fond and familiar with it that I do not believe I am ever able to leave it behind. The "other IBM", the Community and most importantly social capital will be discussed in the two following chapters.

4.3.1 Virtual community or virtual social network?

As observed above, because of its linkages to other interrelated Communities, it does not seem that BlueIQ ambassadors is simply one, stand-alone Community that can easily be separated from its environment for research purposes. This interconnectedness complicated the fieldwork. Nevertheless we still can take a look at community definitions presented in chapter 4 and discuss how both – the external community criteria and the sense of community concept – would fit BlueIQ.

To reiterate Brint's (2001:8) definition of community, the definition which will be used herein, the author states that communities are "*aggregates of people who share common activities and/or beliefs and who are bound together principally by relations of affect, loyalty, common values, and/or personal concern*". And the word in this definition to put emphasis on was *principally*, while Brint also acknowledged that the above statement does not need to be true in every instance and could also leave room for e.g. economic motives for community interaction. Therefore members of a community share either *activities and/or beliefs*, or as many other authors have phrased the same; *interests*. In addition to this, the main reason to interact and stay together is not based on self-serving motives, but rather on altruistic ones such as loyalty, values and norms.

Now if we interpret the collected data in the light of these requirements, are we able to find a community? I will start to decipher this from the first prerequisite. To be a community, the people in this aggregate should share common activities and/or common beliefs or interests. If we start the analysis from interest or common beliefs we would robustly end up claiming this to be true. While joining this Community, people have self-selected themselves based on their own interests and found that the topic of the Community meets with their personal aspirations. People themselves create the affiliation to the Community and furthermore do so out of their own will. So it could almost be described that the Community creates a concentration of interest. This was demonstrated by informants' answers to question of reasons behind joining the Community. They knew that other members would share their interests and even passions. In some of the statements the interest towards the common goal or a mission is so strongly visible that passion could easily be a more correct word to describe it. This can be seen in comments from informants such as: "*BlueIQ Ambassadors are the people who are carrying the message out, the evangelists for the*

company.” or *“Ambassadors are “true believers””*. A word evangelist is often used by other members as well. This choice of wording reveals something from the world of the person using it. Evangelists have traditionally been Christians explaining their beliefs to non-Christians. And this is very similar to what BlueIQ members are doing and how they are seeing themselves – they are converting the heretics from email and phone to new, more productive and more fun ways of working. They have seen the light and now want to lead others there as well.

While the initiative of BlueIQ ambassadors was established on an idea of conducting the same activity – promoting social media usage and benefits to other IBMers – it is clear that common activities exist in this aggregate. BlueIQ even has an activity log where members should record their ambassador activity telling others what they have done or who they have educated and how. Surely all of the activities are not logged, but this behavior is encouraged by the core team to make the activities outside the Community visible also inside the Community. Activities could be giving face-to-face or online lessons to colleagues, mentoring colleagues on using the tools in their project teams or helping them to start new cross-functional Communities or even creating enablement material for the benefit of fellow ambassadors. The activity question is not that simple though. A majority of Community members do not log their activities, which makes the amount of people actually carrying out these activities impossible to track. Also there are other possible ways of promoting Community’s cause in a more minor scale such as talking to people in the normal course of action or inviting people to join to use the tools.

It seems that with regards to being active in promoting Community’s mission the membership is divided into two camps – the teachers and the learners. This does not mean that each of these groups would constitute a separate community, but rather this model seems to fit well into Leave and Wenger’s (1991) concepts of a community of practice with apprenticeship model and legitimate peripheral participation, while the activities are not always directed outwards, but often towards new members as well. This frame of mind is visible in the following comment from an informant describing the essence of BlueIQ Community in comparison to other similar ones: *“BlueIQ is more like “hey look at all these cool new ways to interact and collaborate. Let’s use these technologies to teach each other and let’s teach other people to use these as well.”* Training of new members is very visible, while there are organized learning sessions for newly joined

ambassadors as well as knowledge resources and “how to get started” instructions. The training of these new members is actually fairly formalized and mostly organized by the Community core team. But learning is not only formal tips and presentations, but also to a large extent interacting with members and in so doing, learning to use the tools, venturing out to write one’s first comment or blog post and gradually starting to share the knowledge and experience gathered with other members and eventually moving on to evangelize the larger part of IBM. It seems that not only does the apprentice learn the substance but also a certain mindset to take with him for the journey of evangelizing. This form of development in the community becomes visible in informants’ comments below:

“the newbies joining the BlueIQ comm [community] are seeds that will spread knowledge in their own org whenever knowledge has been acquired”

“Before they become active, they go through a phase of a lurker”

“I wanted to initially learn for myself. When I realized the potential, I started to actively support by working on convincing colleagues to make use of social software tools for use in daily work.”

“Initially [I joined] - to learn from others who know this stuff a lot better than I do. Hopefully with time I'll be able to truly be an "ambassador" and help other newbies like myself.”

It should also be made explicit that of course not all Community members eventually become active. Some remain in the lurker mode forever. These people might never be active inside or outside the Community or might drop in a question once or twice, but for the purposes of defining a community from sociological perspective, these people could be considered as non-members at least as long as they do not take the initial step and start interacting and contributing. Unfortunately there is no data available of how much of the calculatory population of 1000 were actually active members (either internally or externally active), but based on living in the Community for three months I would propose the active members to constitute the minority.

The other part of the community definition was people to be “bound together principally by relations of affect, loyalty, common values, and/or personal concern”. The primary reason for people to interact should hence be based on other than self-serving motives and rather on

altruistic ones. This is quite a complex requirement to start analyzing. In terms of the type of relationships formed in this Community, people experienced them in various ways. Some considered to be making new friends, not just professional acquaintances, while others would describe the relationships to be professional but trusting and open. The ones emphasizing friendships had usually spent a longer time in the Community, while the others had joined more recently. A vast majority of informants did term the relationships rather as friendships than professional relationships. This can be observed from people also sharing personal things about themselves in their profile boards, such as a birth of a baby, marriage or daughter's bridal shower.

So it seems that relations of affect and friendship do exist in the Community and they appear to be strengthening over time. Definition also mentioned loyalty and common values, which are very altruistic motives for interaction. While it seems that many aspects defining a community can also be considered to contribute to its social capital pool, I will discuss norms and values more in the next chapter. Nonetheless certain norms and values could be detected, whether it be for this Community or for a group of similar kinds of Communities. Interaction inside the Community seemed to have based to a large extent on a norm of reciprocity as well as on a sheer will to help others. Although exceptions surely exist, while some members named the reason for joining the community to be simply the access to knowledge and best practices, "*so more about the content subject matter than the people in some ways*", as stated by one of the informants.

The external checklist for a community developed based on characteristics presented in literature (chapter 4.1.1) listed the following features:

- Relatively small group size and/or dense and demanding social ties
- Social attachment to the group (sense of community)
- Recognition of members and nonmembers
- Norms and adaptation of normative standards of behavior
- Hierarchy and roles
- Identity
- Shared history

The list was intended to present some features that could be expected to be found from a community, but not necessarily demanded from it. While norms have been mentioned and will be discussed more in the following chapter and sense of community has been separated to be looked at independently, there are still few features to be analyzed.

Small group size seems to be impossible with a group of 1000 members, but as discussed above, it might be a minority of members who could actually be considered to be *members*. Still, this group cannot be claimed to be small in comparison to most location-based communities. The nature of social ties will also be discussed more with social capital, but as seen with building friendships, dense ties are also formed, though it appears that the majority of connections would be what Granovetter (1973) describes as weak ties. Recognition of members and nonmembers is not as self-explanatory as browsing through the membership list. Even though if one manifest herself as a member and hence it is clear that she shares the same interests, she might not be seen as a member in the eyes of more active members. The active participants see who else is active and would most likely see them as co-members.

Hierarchy is something that this particular Community does not seem to have, at least not formally. One layer in the official pyramid is the core group and the other is all other members. The core group itself believes the Community to be flat and free of hierarchy. Still as it was stated above, there is a clear distinction between “newbies” and the experts. Also some members seem to have more authority based on their experience and knowledge. Despite this non-formal hierarchy it seems that members are treated equally and the structure is flat which is demonstrated in the following quotation: “*you can talk to anyone as an equal*”. Members also seem to have different roles in the Community based on their motivations for joining. While the ambassadors and the “newbies” think alike in terms of acting upon the common mission, also the population of people simply using the knowledge resources without intent to give back and carry out the common activities seems to come forth. Whether these people should be considered members at all or should be accounted as members, but with a different profile is another issue.

Shared history of the Community is not remarkably long, but nonetheless visible. The two and a half year of BlueIQ initiative are celebrated and achievements blazed in the Community wiki. But more than in formal sites of document, the history lives in members and was demonstrated to me

in their narratives. The actual history goes far behind the start of the formal program or the BlueIQ initiative. Community of web 2.0 evangelists had existed before the program and they had been interacting with each other and communicating the message outside as well. One of the informants states this in following words: *“And this was a great opportunity to formalise the unofficial work we had been doing to evangelise social technologies. So for me really it was almost putting a title to what I was naturally doing”*. Another old member reminisces as follows: *“I’ve watched it grow through the years from a group of volunteers to this formalized program. It was informal back then. People had been coming together to learn 2.0. BlueIQ gave people a flag, a name and a place to gather.”* Core team members realize the same and describe:

“Most of the people have been using social software for several years. They know each other. We brought them together and brought them a sense of community and took them away from their silos and away from fighting the war alone. Community has strengthened the ties.”

One last thing to discuss from the checklist is the one of identity. It seems that most people identify with the goals and values of the Community, while they have voluntarily joined the Community in the first place. It seems though that people identify themselves differently perhaps based on their own history in the Community. It appears that various members who had been part of the Community before putting the label BlueIQ on it rather identify themselves as web 2.0 or enterprise 2.0 ambassadors and not so much as BlueIQ Ambassadors, while members joined in the course of BlueIQ history might strongly identify with this brand. But regardless of the brand, members characterize the BlueIQ identity in fact fairly similarly mentioning evangelizing, early adoption of technology and certain types of trend setting and role models.

Studying the sense of community was more of a complex task than observing the characteristics. As Mannarini and Fedi (2009: 213) state it: “SOC does not always represent the experience and the understanding that people have of community, and that the expression “sense of community” is opaque in members’ discourse.” I found it hard to ask members of the four aspects of sense of community defined by McMillan and Chavis (1986) presented in chapter 4.1.2. Sense of community was defined as: “a feeling that members have of belonging ... that members matter to one another ... and a shared faith that members’ needs will be met through their commitment to

be together” (p. 9).

The first aspect of SOC, the feeling of membership, was to some extent visible in discourse due to the strong identity. The people who strongly identify with the group and with its mission do seem to feel to be a part of it. I is replaced by we. For the second part, feelings of influence, based on public discussions it can be said that people do believe to be able to influence other members, while ideas, even the ones conflicting with current way or doing, are openly communicated. Members would most likely not discuss, brainstorm and develop together if they believed that it would not have an effect. The feeling of being influenced by the community was surprisingly enough not recognized by the members themselves, while they did not experience to be exposed to expectations or strong norms. Still some members evidently have been strongly influenced by the Community, but perhaps more on an emotional level. This is visible in the rhetorics members use while describing the Community. One of the members even expressed his great gratitude for the Community of all the help he has received.

Also the remaining two aspects (integration and fulfillment of needs and shared emotional connections) seem to be met at some level. Members support others and offer help but simultaneously are supported by other members. This support offered appears to be evoking intrinsic rewards in addition to more concrete benefits in form of for example information, while the joy of being able to share things and help other is a primary motivator for some members. Relationships are also created and maintained and some of those, as noted above are close ones. One motivation to participate is simply to be able to connect with other people.

Based on the rationale presented above, it would be easy to call BlueIQ Ambassadors a community, but I would not consider it that simple. While there are other related Communities, the boundaries become unclear. Even though some of the members could not make clear distinction in norms or culture between BlueIQ Community and other related Communities, they often are able to characterize the differences at least based on the mission. One informant even described BlueIQ as a sub-community of a larger Community focused on knowledge management and social software tools, while BlueIQ is more focused around a specific mission. Because of members being able to separate BlueIQ from other related Communities mainly based on its focus and tasks, I would consider this entity to be a separate Community from the related

ones. Though the large numbers of boundary spanners (Leave and Wenger, 2001) between the Communities does also seem to affect certain types of social capital especially in the way of not restricting it to locate only in one community. Hence even if we defined BlueIQ as a separate community, social capital should be analyzed and observed in a broader context.

While borders of the Community might not be clear in comparison to a larger population of people and Communities, defining them inside the official membership is also a problematic task. One hypothesis might be that the actual ambassadors and people willing to grow to become such would constitute the actual community. However it seems that since its establishment the Community's purpose has changed. While it started out as a group of people enthusiastic about promoting their message across the company, the culture of easily being able to and being encouraged to join online Communities has shifted the focus away from only evangelism and towards a more typical "community of interest" where people simply interested in this topic would join to learn about it and to exchange ideas and thoughts with likeminded members. Hence one could also hypothesize that a larger BlueIQ Community would consist of members who are active and interested in this particular topic and that a sub-community of a larger BlueIQ Community would consist of even more devoted members who are willing to sacrifice time and effort to preach and teach others. While members with different profiles do communicate with each other and the ambassadors reciprocally share their knowledge to whom ever might be requesting it, would the latter hypothesis seem more compelling.

I can not make justified claims of what parts of BlueIQ constitute separate communities while a proper social network analysis would be required to unveil the true relationships in this larger aggregate of people. Still based on the arguments presented in this chapter I can claim there to really be a community. Where exactly, or how many of those, I cannot claim to know based on this study. I can only say that the people, flows and places I followed seemed to constitute a vivid and energetic Community, which I gradually started to feel part of. I got immersed into the culture and started feeling empathy toward the people and felt strong sense of belonging to the Community.

4.3.2 Elements of Social Capital

As I previously divided social capital into three separate classes for purposes of analysis, I will present the findings continuing with this trichotomy, even though some types of social capital are so intertwined and interrelated that it sometimes becomes difficult to separate them making the division slightly artificial. I will first present the different elements of social capital found from this Community after which I will summarize the findings in Table 2.

4.3.2.1 Structural Social Capital: Community as a network

While discussing the network aspects of a community, which are also closely aligned with Nahapiet and Ghoshal's (1998) classification of structural social capital, the analysis can be separated into two closely associated but distinct phenomena. Firstly, there is the analysis of community members as one network and the study of characteristics of this network. Secondly there is the analysis of how the existence of a community and a membership in such an aggregate affects individual's abilities to build her own personal network. Based on the qualitative research conducted it is somewhat possible to present answers to the second question, but practically impossible to the first one. Systematically studying the configuration of a network formed out of community members would require the usage of another type of a methodology and the best suited for this purpose would be a thorough social network analysis (see e.g. Cross et al. 2001). Even through this method was chosen not to be used for the purposes of this study some observations from the field study can be used to estimate particular structural characteristics and their effects on social capital.

I will first discuss the community as a platform to help individuals build their own personal networks. As stated above, community creates a concentration of interest while people self-select themselves in making the decision to join. The main benefit from a personal networking point of view that this brings to individuals is that it eases the task of finding like-minded people, while they are "located" in one place and not dispersed around the cyberspace. Hence the simplicity and ease of finding people one want to network and connect with is increased because of the existence of a community. For some people this happens more naturally than for others. If one is active in the Community, the network is almost automatically created, while people cross answer

each other's questions, read and comment on each other's texts and participate in common meetings. While they learn to know each other based on this common participation they might gradually start communicating directly to each other. The other type of network building is more purposeful. One of the informants gives a good description of how this is done: "*looking at the member list and also seeing some discussion posts ... and then adding them to network or "watching" them*". This type of networking might be particularly important to newcomers of the Community, while adding content matter experts and interesting people to one's network allows the new members to connect with these experts and "*discovered their networks and content (files and such)*" as phrased by one member.

The culture at the larger IBM seems to be quite open when it comes to network building and connecting with strangers. I noticed this quickly after having found this online IBM and invited some of the people whose knowledge and online presence I admired and from whom I wanted to learn from, to join my network. This openness towards networking is also visible in the following comment from a member: "*people don't realise just how easy it can be to reach out and learn from others in our massively diverse company*". Being a member in a same community and hence having publicly demonstrated to share same interests bridges the mental gap to connect with a stranger. Many informants agree that Communities are a great place to start building one's own network: "*When you are looking at the [community] discussion forums and participating in webinars, you collect these role models and you can connect with them too*". Whether the network building is goal-seeking or accidental, it is clear that the Community offers a platform for people to connect with each other – a resource for network formation.

If we move on to examining the construct of the larger network created around the community, we can continue bit further with the same topic, while a subject written a lot about in terms of network configuration and its relation to social capital is the strength of ties in the network. Based on the observations presented above it seems that there are strong ties and relationships that are created through common participation and also weak ties that are created based on interest towards the other person and openness to connect with strangers. Based on labor market outcomes and person's network, Granovetter (1973) created a strength of weak ties (SET) hypothesis claiming that a network of weak ties is, in some situations, more efficient while

individuals will be able to gain information from more distant and wide reaching parts of the social system. Importance of these weak ties can also be seen in this Community. While moving along with connections and flows of people and information I noticed that a remarkable amount of interaction is in fact happening somewhere else than in the Community space. Fellow ambassadors have vivid discussions and solve problems in their own profile boards, people upload useful documents also to their own public files and bookmark useful resources to their own bookmarks instead of doing this all with the same tools available for a Community. By having even this kind of a weak tie with a person who possesses knowledge of the area I am interested in learning about, I will be able to tap into the resources, knowledge and network of this person just by following my network's news stream. Obviously also strong ties are existent in the network and beneficial in their own way in for example facilitating collaboration and adding to reciprocity (Bian, 1997; Krackhardt, 1992). It seems that both types of tie strength can be seen in this community and it seems that also both are useful and needed.

The downside of this phenomenon is that all of this will not be visible for me if I do not have an explicit connection to this person. Smith (2008: 17) talks about explicit and implicit connections among community members explicit being an actual connection of which individuals are aware of and implicit being a similarity for example in attitudes or interest between individuals. Implicit connection hence might mean that these people are not aware of each other and their congruent interests. Smith also talks about actual and potential social capital (p. 19) with actual being related to explicit relations and potential to implicit. Hence it seems that while interacting also outside the Community is a natural thing for mutually connected people to do, to be able to tap into the resources of others, an explicit connection must exist. Reflecting the empiric observations to Smith's conceptualizations it could be described that *the community creates potential (structural) social capital* or implicit relationships among its members, but to be able to fully benefit of it, a person must transform that potential social capital into actual social capital in creating explicit relationships.

Another structural characteristic of the network formed around BlueIQ Ambassadors Community, which can be observed without longitudinal social network analyses, is the lack of closure in the network. Coleman (1988) claimed closure of the network to be a necessity for

effective norms to be created. Even though norms are discussed more in the upcoming chapters, I wish to highlight the effect of lack of closure on norms in BlueIQ Community. While members often belong to many other Communities and cruise around cyberspace, no true closure is created, while members are exposed to other influences from various places and people. This might be the root cause for not being able to find notable amount of only BlueIQ specific norms in this community. The absence of closure might also affect other types of social capital such as language or common context and cause some of these aspects of social capital to apply to a wider group of Communities instead of only one. While norms and meaning would then be negotiated amongst even a larger group of people, the lack of closure might actually hinder the amount and effect of certain types of social capital. However, a lack of closure clearly brings about some benefits as well, perhaps the most notable one being information dissemination. Many members act as boundary spanners (Leave & Wenger, 1991) cross-linking and cross-referencing information between Communities.

4.3.2.2 Cognitive Social Capital: Sharing success stories

In terms of cognitive social capital, BlueIQ specific findings were surprisingly scarce. I found that most of the language related issues could not be said to apply to BlueIQ only. I myself was overwhelmed by the language and various abbreviations used, but over time noticed that the Communities that deal with the same topics do share the same language. So when a BlueIQ Ambassador would say: *“It makes it a little more “Vulcan-ized” :)”* also members in a handful of other Communities would understand this phrase to be referring to an IBM research project. A significant amount of Internet language is also seen in text based communications. These lols, rolfs, @s and an extensive use of emoticons surely are not BlueIQ specific, not even IBM specific, but are closely related to larger internet way of “speaking”. While many employees who are active in online IBM also are active in the online world outside IBM, the language is also used internally. Members also used abbreviations extensively, but NDA, LC25 or Netvibes would most likely be recognized outside this community also. Often these abbreviations refer to certain tools (*“that was when Tommy! used to be fed from Fringe”*) and newbies learn the meaning by asking or figuring out from the context. Even though language specific to this one Community could not be identified, the existence of common context somewhat specific to this

one Community cannot be denied.

The existence of common context, or common meaning embedded in the Community, is strongly visible, but often only in the discussions between actual Ambassadors, as opposed to the information-seeking members. Context is perhaps most visible in the discussions about actually conducting the Community mission and being a BlueIQ Ambassador, while everyone who is trying to convert people from old communication methods to new ones face the same challenges. This resistance is well known by all other member and while someone is sharing their pain with the group, others can understand, relate and offer support. Common context originates from shared history while members have started understanding certain topics, words or phases and phenomena in the same way. Context is also visible in the meaning members assign to various tools that are used. It also seems that the tools provide a medium to discuss topics related to challenges and joys of being an ambassador.

A good example of a common context understood and used for the benefit of the mission and as a way of discussing related topics is the “email strike” of one of the key members in the Community. Two years ago this influential person started a revolution against email refusing to answer emails via email, but using other media instead. This has grown into a war story that everybody knows and hails. It is often cited and joked about in common discussions “*Luis, were you advocating email*”, and the story as well as reasons behind it are understood by other members. This revolution also concretizes Community’s mission and has gained followers among other members.

While the example in the previous chapter was almost a war story of one individual trying to start a revolution, which has gained immense momentum through the Community, it by no means is the only war story to be found. In addition to war stories, Community also uses success stories extensively. Hence, from the cognitive social capital, stories and common narratives are perhaps most visible and also to the greatest extent only BlueIQ specific. The war stories allow other community members to offer support and understanding to the member who has experienced difficulties in spreading the word of social computing. During one Community call through a back channel chat, a member started telling about her difficulties with her team in using these tools and told a story to demonstrate how far off these people really were. The storyteller did not

ask questions or seek advice but it felt she simply wanted to experience the support of the Community and to feel she was not alone with her problems. *“They just don’t get me!”* She knew other members would understand her which they did also offering sympathy. This was also seen in one forum discussion thread dealing with difficulties of being a BlueIQ Ambassador. Thread received a lot of attention and deep conversation, while many members shared stories from their life. People could see they were not alone and also together started developing solutions for overcoming these problems.

Success stories have an equally relevant significance in the Community, while they give hope to people demonstrating that these obstacles members often face can indeed be overcome. In addition to giving hope, they also provide examples. While discussing with one informant he cited one of the biggest benefits of being a member to be *“Knowing that there are others and that you’re not crazy.. and also hearing success stories“* which according to him was one of the primary engines of keeping people going. Even through a lot of story telling happens in more casual interactions and stories are shared in blogs (*A non-believer’s business case for Micro-Blogging*), forums or Community calls, the BlueIQ core team also more officially encourages members to write their stories and share them in BlueIQ resource site. These stories can then give hope to other members or can even be used in the work of evangelizing. They provide a resource that can be used to demonstrate the benefits of the common cause to the “non-believer”. The use of shared narratives in a community provides a powerful mean for “creating, exchanging, and preserving rich sets of meaning” (Nahapiet and Ghoshal, 1998: 254). While stories are told and remain visible, a new way of transferring the common passion and goal as well as means of achieving it, to new members is created. Already Orr (1990) demonstrated how narratives in the form of stories, which are filled with ostensibly irrelevant details, can facilitate the exchange of tacit knowledge between technicians. The tacit knowledge is experience based and often rooted in practice and the exchange of it was enabling technicians to learn and discover new improved practices. While the skill of “evangelizing” is strongly rooted to the practice of doing it, these stories could prove to be an efficient way of passing the information on to new members as also indicated by the citation above from one of the informants. Orr also claims that stories can construct the collective memory of the community offering stability while members come and go.

One additional topic observed that could also be classified under cognitive social capital is the one of artifacts. Even though the use of these was not extensive, some examples of the usage could be observed. Wenger (1998) defines artifacts as tools, stories or procedures that reify something of the community's practice. A special kind of a practice was almost accidentally created during one "Lunch and Learn" enablement call that focused on tagging (associating keywords or terms to a piece of information), while one of the call participants came up with an idea of tagfriday. This meant that each Friday community members were to go and tag people, articles or other information with relevant keywords. This movement gained momentum not in the community space itself, but on people's profile board updates and soon a large amount of people had joined the movement and were tagging each Friday as well as promoting tagging to their networks. *"Let's motivate some Blue taggers today!"* This habit seems not to have faded away but tagfriday status posts can still be seen every Friday. While tagging represents one of the aspects of social computing and is seen by the members as a beneficial way of collectively organizing information, the tagfriday became a concept of a phenomenon that was used in conducting Community's mission. Members seemed to associate meanings of evangelizing and spreading the word in tagfriday movement. It became a fun way of encouraging people to act in a social way online.

Another artifact and perhaps even a boundary object that creates connections between different communities (Wenger, 1998) is a template activity created by one ambassador to be used in the Activities tool in Lotus Connections for facilitating tracking of employees performance for purposed of personal business goal achievement review with one's manager. This template was, to some extent, an embodiment and an example of how social media tools could be beneficially used by employees in their work related activities. In addition to simply developing this template, the creator wrote a story and arguments around it and cross-posted it to many relevant Communities, in all of which it received encouraging feedback. The template was not only a way to pass the knowledge embedded in it of the benefits of using social tools across different Communities, but also to pass the knowledge embedded in practice outside Communities all the way to people who are not accustomed in using these tools and hence offered yet another method of advancing Community's goals.

4.3.2.3 Relational social capital: “I hear you mate”

Even though it seems that norms or distinct cultural aspects were not appearing as strongly and community-specifically as I hypothesized, it seems that together with structural social capital and strongly because of that, the relational social capital constitutes one of the most important recourses for this Community and for individual members.

Norm of reciprocity is often cited as one of the most important types of social capital in communities and also in a more general level in social network (see e.g. Lesser, 2000; Putnam, 1995; Adler & Kwon, 2002). Reciprocal behavior is clearly visible in this Community, but it is not necessarily relevant to just BlueIQ. When help is asked it is almost always received. It might be that because of the relatively long history of BlueIQ Community and close relationships among members, the norm is even stronger in this Community than in others, more interest oriented ones. I experienced the reciprocity while seeking people to talk to me about these issues and not only almost always receive help and a chance for call or for instant messaging discussions but also an enthusiastic and friendly attitude. People wanted to help me and if they did not have time to, they were truly sorry for not being able to do so. In Community life, questions posed in forums often received helpful answers, references to helpful resources or even offers to help personally. Reciprocity in this Community does not seem to be personal, but rather communal in a way that people do not return personal favors, but help others and give back because it is the right thing to do. During the history, a strong norm seems to have developed to offer help and information to others, which is visible in a testimonial below:

“That’s one of the reasons why I fell in love with IBM, because people are open about helping you. They are grateful for the help they have received in the past. There is this thrill of being able to connect to people and to help them out. Communities are an excellent way to do that.”

The quote also indicates this behavior to be IBM wide, though many others have noticed this to apply more to the online IBM. Even though the norm of reciprocity appears to be strong, it seems that there has been a decline in it during recent times, while previously people answered each other’s questions and offered their help even more so than at current day. This could be thought to be accounted for the increase in members and especially the learners, who do not join in order

to participate but rather to learn from others without contributing themselves.

Another important norm, one that could be thought to be formed in this particular Community and affecting behavior there, is the group norm or a collectivist norm. Wanger (1995) talks about *collectivism* that describes a situation where members of a group are oriented towards group's goals and an inclination towards cooperation exists. Collectivism again though can only be seen in a group formed by the ambassadors, while people who join and participate for their own benefit clearly represent a more individualistic norm. Hence, it seems that both – individualism and collectivism – exist hand in hand, but collectivist group norm is the one that is more visible to the viewer while individuals seeking to advance their own benefit make less of a noise about themselves. Van den Hoof et al (2004: 167) declare the existence of a group norm to lead to a stronger orientation towards group's common goals as opposed to individual ones. The following extracts demonstrate the feel of collectivism: “*we, as a community, will collaborate in fixing them*” and “*It's a long, painful process.... but together we'll get there!*”

Closely related to and intertwined with the collectivist norms is group identity. It is clear they overlap and affect each other but which affects which, cannot be concluded based on the information gathered for this study. Identity in BlueIQ is most of all “we” spirit. “*We can convince them*” and us against the rest of the world. “*..and I just can't wait for that integration to become a reality, so that we can bridge the last bunch of laggards in their on boarding of social software tools: the ones living in their inboxes! :-)*” Though this also along with many other things is more true to the ambassadors than to other types of members in addition to which there are differences between members. People who have been part of this movement and Community since its early beginning do not identify that strongly with BlueIQ brand, but rather consider themselves as Web 2.0 or Enterprise 2.0 ambassadors while some of the more recently joined members identify strongly as BlueIQ Ambassadors. For some the identity is also stronger and they actually cite themselves as BlueIQ Ambassadors even in official communication. Regardless of whether people title themselves and with what title, identification to the group is strong. While members face similar kinds of challenges they “*feel the pain collectively*”. Reasons for the strong identity formation might be the passion experienced by members, but also the fact that these early adopters might feel isolated in their local working environments surrounded by people who are

resistant to change and new ideas, “so having this community they can go to where they can identify with other people, they don’t feel alone, they can talk about their frustrations, they can get advice from others”. Finding the other like-minded people also validates their passion taking them out from the wilderness where they were doing things alone. A strong identity might also have an effect on other norms, such as expected behavior as one of the informants put it while talking about BlueIQ identity: “[I a] *Trying to be the ambassador I’m claiming to be*”. So redeeming the claim of ambassadorships or evangelism requires actions as well.

It seems that some of these relatively strong norms cause a call to action. While it would be easy to hypothesize that a norm of expected evangelizing exists and that each member would be expected to do their share for the common cause, it is surprising to notice members do not think this way. None of the members I discussed with felt that the Community expected a certain type of behavior from them. Despite this fact, many members believed that BlueIQ does a good job in engaging people in the periphery to get them to volunteer. Members considered the expectation to be more of a hope to volunteer but did not feel compelled to do so, so participation is encouraged, but not required. Even though members themselves did not feel obligated to participate, it seems that often their stories had the same twist: They joined for the reason of wanting to learn from social software, not to teach about it, but gradually through time they got inspired by what the community does and also started noticing the benefits of social software tools and started to take small steps to evangelize. Hence, even though this norm is not visible, it seems to be effective to some degree. Whether it was the norm of a simply the realization of the greatness of the tools and a will to help other, the following members seems to have gone through the same path:

“However I know I wanted to initially learn for myself. When I realized the potential, I started to actively support by working on convincing colleagues to make use of social software tools for use in daily work.”

According to some long spanning members, the expectation to participate and teach other was stronger in the start of the Community. That was when people joined, because they wanted to teach others and share their knowledge and experiences with others who felt the same. So while that was the primary reason for joining, it was the norm of behaving. While Community has gained popularity, a large amount of people join to learn, not to teach. While these people have

been participating in other Communities, where no true call to action exists and which are more of platforms for discussion and learning, the mindset is taken from those Communities and transferred as-is to BlueIQ Community. This is because BlueIQ is really an atypical Community among the larger pool of Communities, while others correspond better to the idea of community of interest and because of this, a larger norm of how to act in Communities has been created within IBM. BlueIQ seems to have adapted to this change and it appears to be accepted that people can join based on other motivations than thriving for the common goal.

In addition to the above-mentioned norms it was difficult for me and for the members to identify any other BlueIQ specific cultural characteristics. Some mentioned that possibly BlueIQ is more accustomed and open towards change, while others thought there might be some differences in the way members communicate and interact with each other. While most people felt that some differences could exist, everyone had difficulties in putting their finger on it. One characteristic I noticed was actually caused by the extensive amount of new members, while in the educational sessions also stupid questions were allowed and even encouraged. So while being new and uncertain is accepted and there are even events targeted for newbies it seems that the Community has adapted to the changed culture and environments.

Despite the movement initiated by Granovetter (1973) emphasizing the importance of weak ties and their effect on social capital, many authors have taken a step back and reminded us about the importance of strong ties (see e.g. Bian, 1997; Krackhardt, 1992). Even Granovetter himself pointed out that strong ties can play an important role in networks causing stronger motivation to be of assistance and easier access to resources, while weak ties guarantee the access to a larger pool of different resources. In addition to these benefits Krackhardt (1992: 218) lays emphasis on strong ties in generating trust among people. On the light of this academic discussion, stressing the importance of both – strong and weak ties – but for different purposes it is interesting to take a look at what types of relationships are formed in this community. While it was already briefly concluded earlier that both types of ties seem to exist in this community simultaneously we can now take a closer look at what does it really mean if a tie is weak or strong.

Members who had been involved with community action for a longer time often told to have been able to develop relationships that could even be called friendships. In addition to being able

to develop “*very strong friendships*” one informant mentioned to have found mentors and role models as well. Not everybody develop friendships online, but some of those people compared the relationships to be similar to what they develop at work face to face, while desiring to keep their personal life separate from the work life. One of the informants describes the type of the relationships to be something new that would be located between strictly professional relationship and a friend. This type of a relationship was caused by the joy of interacting with these people, but perhaps never developed all the way to friendships because of the geographical distance. After developing tight relationships online, some people even meet face to face after many years either in a company conference or even decide to meet on their free time during a holiday or a work trip to a different either one’s geographical location. An interesting phenomenon is also the asymmetry of relationships created online. Some times the other party of the relationship knows quite a deal more about the other than vice versa, while people give out different amounts and different types of personal information in their online interactions. Weak ties on the other hand often simply mean adding people to your online network and following them, perhaps sometimes cross commenting on each other’s posts. Weak tie seems to mean that you are aware of the existence, skills and online activity of the other person and the relationships is mutual in a sense that while turned to a person for help you would receive a response. Whether strong ties conceptualized as a friendship or something else, it is clear that people do enjoy interacting with their connections and do it solely because they want to. And as Granovetter concluded, stronger ties strengthen the motivation to provide help to others.

Even though motivation to contribute and share one’s resources was not seen as part of social capital, in my opinion it deserves to be discussed to some extent in this study. It seems that both types of motivations, consummatory and instrumental (Portes, 1998: 7-8), to give out information and other resources exist in this Community. Most often though it seems that the motivating factor is consummatory and caused by community norms, while people share information simply because they want to help and because it is a right thing to do. What strengthens this motivation even further is the fact that most people join the Community due to this exact reason: To be able to help other inside the company as well as inside this Community. Instrumental motivation on the other hand does not seem to be based on one-to-one reciprocal exchange but rather on building one’s presence online to gain benefits related to that such as building a reputation. This

phenomenon will be discussed more in the next chapter.

While quite a bit of “positive” relational social capital seems to exist in this Community, it is worth noting that “negative” types of social capital were not visible. Members did not seem to have obligations (Coleman, 1988) towards the Community or other members and no types of sanctions were used to punish from a wrong type of behavior. This seems logical though while participation is purely based on voluntarism.

Now that social capital findings have been presented, the next chapter will focus more on the whole phenomenon around the social capital itself and will try to describe some implications of it for the Community life as well as for individuals in the Community.

4.3.3 Discussion: Social capital as a resource for individuals, the community and the company

In this chapter I will discuss some of the potential implications of the elements of social capital presented in previous chapter for individual Community members, the Community as a whole as well as in a larger scale to the company as a whole. I will do so discussing certain topics observed during the field study.

“Knowledge shared is power”

One of the central themes in the literature is that social capital constitutes a valuable source of information benefits through either a direct access to information or through knowing people who know (Nahapiet & Ghoshal, 1998: 252). While a discussion between differences of knowledge and information is another debate, I will discuss both of them in the context of social capital not even trying to separate them too much let alone engage in the discussion of knowledge creating theories.

For an individual the various types of social capital combined with a strong consummatory motivation to share knowledge and information, guarantee the access to useful knowledge and information sources. Even though knowledge sharing is not the primary function of the Community, social relations that are often established for other purposes constitute information

channels that reduce the amount of time and effort required to gather information (Nahapiet & Ghoshal, 1998: 252). Burt (1992) suggests that these information benefits caused by social capital occur in three forms: access, timing, and referrals. Access to beneficial information can be seen to be caused by the focus of interest caused by the existence of the community and by focusing and screening the information to be relevant for the member. Weak ties do in deed seem to be more beneficial in gaining relevant information in a timely manner. This can be accounted for the strong norm of knowledge sharing and the willingness to connect with unfamiliar people. Many informants praised the idea of sharing knowledge and it seems that this has become a common way of behaving widely inside the online IBM. “*Knowledge shared is power*” or “*Knowledge grows at its shared*” are not uncommon ways of thinking. I started noticing myself behaving similarly at the end of my research while when I found useful information following people and flows I posted it to BlueIQ Community space or to my own profile board for the benefit of the community or my personal network.

The importance of information benefits from social capital is largely recognized by the Community members, while when being asked the most important personal benefit derived from being a member in this community, the answers often relate to knowledge and information. One member described the benefits as follows: “*The biggest benefit to me of a community is latching onto the expertise you need. Whether that's by posting a question in the Feedback Forum area or simply reading through blogs and forums to find a person who would appear to be helpful.*” This quote also describes the other significant benefit experienced by members, which is finding the people who know. Again while the Community combines people interested and knowledgeable in certain topic and makes their expertise visible by making the comments and blogs as part of the public discourse, the experts can be easily located. Community reciprocity again seems to cause that while these experts are contacted, they respond to the requests welcoming and offer their skills and resources to help others.

On a Community level, organizing and combining information are some of the benefits that can be traced back to social capital. Usage of stories also forms a memory for the Community that then is visible and available for new members. While interaction is virtual, it means that all the information will remain there being visible for anyone to use, which also means that the

Community is constantly building its information and knowledge repository with the help of its members. While the network as a whole can not be thought to be a dense one and people are geographically and organizationally dispersed, the information gathered to the Community by its members is more diverse and comprehensive and could be thought to be of better quality as if the network consisted of dense ties and similarly profiled people. This information posted to the Community then also awakes public conversations that can generate new ideas and new knowledge.

The existence of communities forming and maintaining social capital inside a company means that people do really connect across continents and across different organizational units. This combined with the observation that quite a bit of employees belong to various interrelated and unrelated Communities acting as boundary spanners, means that information exchange and diffusion are enhanced remarkably. What this also means is that instead of information being located only on individuals' hard drives, it becomes visible to everyone. Information is more and more being moved to places where also other people could benefit of it. In addition to information also ideas are shared in online Communities. In addition to sharing they are also refined and continued. The visibility of ideas in addition to information might be a factor contributing to the overall innovation capability of the company.

“Become famous and popular”

The header is a direct citation from the BlueIQ resource wiki, where the benefits of being a BlueIQ Ambassador are explained. This was a topic regarded important also by many members. In addition to being able to help other by sharing what you know, another benefit in doing so is gaining recognition and becoming the expert. And communities are *the* place to get started from. It also appears that this recognition is a beneficial way to advance one's career, while two of my informants had gained a new position largely because of their online visibility in the organization. Also stories of people who had been laid off, but managed to use their own personal social capital built because of their participation in Communities, to find new jobs inside the company. *“While they had given so much to the community, people responded by helping”*. This kind of a fame and popularity might also generate power benefits for the individual, while being considered as an expert a word might be more influential than a one from an unknown member.

This recognition is seen so important by the members and Community leaders that BlueIQ has even developed an own recognition program, where active members are rewarded with Merit Badges and Most Valuable Ambassadors are selected each quarter.

Recognition is also sought for from outside the Community, while a member cited that: *“When I joined, I could see that it was a very good benefit to get some recognition to what I’m doing.”* While often participating in BlueIQ activities and teaching others is something people do outside their “real jobs” it becomes important to let their managers know that they are voluntarily doing something good for the company. While this expertise is recognized also outside the Community, these people often become “information hubs” in their local work groups and are the ones that can point people to right sites, resources and people. Also the strong BlueIQ identity is something that is recognized outside the Community, while when someone contacts BlueIQ and asks for a presentation, a lesson or help *“they know that we can deliver good results”*.

“Together we can do it”

On the community level social capital has the potential to facilitate collaboration. While weak ties offered mostly information benefits, strong ties are the ones that make the easy collaboration possible. Also the shared common context breaks boundaries for working together effectively. Strong identity and reciprocal behavior also do their bid in contributing to this benefit. While in this case, the Community’s goal seems to align with the goals of most individuals, offers social capital indispensable value for the Community.

“I still can’t believe the company that employs me is going to allow that to happen”

An interested phenomenon was experienced during the fieldwork related to corporate radicalism discussed extensively by Deborah Meyerson (2003). A new corporate policy was about to be introduced and was communicated through the official communication media. Individual people started resisting this change and the resistance gained immense momentum through status posts and discussions awaken by those posts, blogs and forum discussions. The ability to bring this issue into the discussion was principally due to the existence of online social networks and as stated before, Communities contribute large part in building these networks. People also made each other aware of the discussions going on by linking blog posts to Communities. So while

this occasion cannot be claimed to be facilitated or caused by Communities, they do play a part in changing the company towards more of a bottom-up culture, while individual employees are offered tools and a platform to voice out their concerns that can rapidly cause an avalanche. Do you want to hear how the story ended?

“In response to the reasoned, thoughtful dialogue to which many IBMers have contributed, and in the best spirit of cross-IBM collaboration, we are going to postpone the March 8 pilot of our new [policy].”

This example demonstrates that facilitated by online social networks and social software tools even the grass root level can make their voices loud and actually accomplish change. So from the point of view of an individual opposing this change this was a success story, but if the event is placed into an organizational context and considered through Adler and Kwon’s (2000: 108) contingency theory, the value of social capital for the whole company might even prove to be negative in this case.

In this chapter I have discusses only some of the possible benefits (and disadvantages) of social capital formed and maintained on intra-organizational online communities, but this brief look on the implications was by no means a comprehensive one. More research would be needed to find out how certain elements of social capital can be used as individual or collective resources for action.

4.3.4 The relationship between social capital and a community

During this research an interesting observation of the theoretical closeness and even overlap of the concepts of social capital and community has been made. Norms and identity that can be seen as part of social capital are also characteristics for a community. Also social networks, which can be seen to belong to the structural social capital, are necessary conditions for the formation of a community. Because of this overlap and the interesting doors exploring it might open, I will discuss here the relationship of the two based on literature and results from this study.

There have been different views in the academia of whether social capital is a cause or an outcome of social networks. Even though social networks do not always equal communities we

can take a look on how the relationship has been understood by other researchers. Williams (2006: 594) sees social capital as an outcome from social network and describes the network to be a causal agent for the amount of social capital available. Other researchers see social capital rather as a process and Newton (1997) has proposed social capital to be cyclical theorizing that social capital is comprised of norms, networks and the resulting outcomes, which again feed back into further norms and networks.

The most common understanding of the relationship seems to be that social capital is seen as “social glue” that holds people and communities together (see e.g. Syrjänen & Kuutti, 2004: 21; Husyman & Wulf, 2004: 1). Smith’s (2008: 22) proposition seems to be derived from this viewpoint while he suggests that social capital could be used in measuring the state or the health of the community.

The results from this study rather seem to support the cyclical and more complex relationship than unidirectional and causal relationship. Firstly, based on the findings it seems that community offers a *platform* where social capital can be produced and from where it can be accessed. This is demonstrated by employees joining the community to create relationships, offer and find help and support and to exchange information. During the course of this activity relationships deepen and norms and identity are formed. These forms of social capital again affect member’s behavior, while they are affected by the norms and new behavior leads to new types of social capital. The relationships cannot be purely causal in a way that community creates social capital because the overlap in conceptualizations of social capital and community implies that community cannot exist without social capital. Hence it seems that what at IBM is called a Community, offers a platform for people to interact and form social networks and due to this interaction social capital *can* be formed which again connives, but does not necessarily lead to the creation of social phenomena that characterize a community.

If we think of the relationship of social capital and a community and bring the dichotomy of social capital presented in chapter 2.1 into discussion, it can be proposed that the two different classes of social capital affect community formation differently. What Sandefur and Laumann (2000) call sociocentric view and what Putnam (2000) would cite as bonding social capital has a greater potential in affecting community formation and evolution, while social capital focuses

more on collective. In this viewpoint, social capital is seen more as a by-product by social relationships in the context of larger relationships patterns in the system. The other view that Sandefur and Laumann call egocentric perspective and Putnam would call bonding social capital focuses on individual's networks and the benefits she can draw from those networks. In this view a person is seen as a self-interested actor who seeks to use resources accessible through the network, but not belonging to her, as means for driving her own interests. This egocentric behavior does not increase communalism but rather diminishes it replacing we with I. It seems that rather than enabling community formation or creating new social capital, the existing social capital is consumed. While the relationship is not a simple one it seems that the elements of social capital that could be classified under bonding social capital do have an effect on community while bridging social capital obstruct or at least does not contribute to the creation of a community.

The glue metaphor also seems reasonable based on the findings. Members' feeling of attachment to the community can at least partly be due to social capital existing in the community and available for the use of members. In addition to this kind of an exit barrier that social capital forms, it also seems constitute an important reason for joining the community. Many informants described how they originally heard about this community from their colleagues who saluted how well community operated and how much benefits they had received from being a member.

The measurement point of view is also an interesting one. While I have used social capital as a framework to describe rather than measure the social life inside a community, Smith (2008) proposes that by measuring social capital, the state and health of a community could be estimated. To do this though, I would rather propose social capital to be measured on a community level rather than on individual level, which would mean that new measurement tools would be needed, while the existing ones (Williams, 2006) only measure social capital from individual's point of view.

In future studies focusing on similar issues I could recommend the use of measurement point of view to explore how and if social capital affects the health of the community, but rather than a snapshot of one community, a more longitudinal study focusing on many different communities would be needed. This kind of a study could enable us to learn more on what makes a community

successful and offer insights to community leaders and owners. On this type of a study, I would recommend the relationship not to be conceptualized as unidirectional and causal, but rather bidirectional and complex. Community can be thought to offer a platform where social capital formation is possible but social capital (especially bonding social capital) can also be thought to enable the formation of a community.

5 Conclusions

In this chapter I will first summarize the findings from this study after which I will present managerial implications based on the findings and at the end present some interesting research questions for further research.

5.1 Summary of the findings

For this research I set the following goals: To find out what kind of social capital is formed in online intra-organizational communities and to investigate if a community can be formed online and in this context and environment. I was able to prove the existence of a community in this one particular social aggregate and find representations of certain elements of social capital.

Based on the empirical research I can state to have found a community from cyberspace. Whether I have found only one community or many interrelated communities or sub communities of a larger community, cannot be answered based on this research. A proper social network analysis would be needed to study the actual configuration of the network created by BlueIQ. Even with absence of this data it seems that in the early history of the community it was a smaller and denser community with members thinking and acting alike. With the development and increased popularity of community participation new members have joined with different motives bringing along more widely accepted norms of behaving and interacting in an online community. As one member stated: *“There are two sides of the community, really”*. There are the ambassadors and the knowledge seekers, but it seems that the community has adapted and the two have learned to live side-by-side and even together. And because of comparatively strong norms and a common passion, these knowledge seekers are seeds that can eventually grow to be ambassadors.

It also seems that the mentor – mentee model presented by Leave and Wenger (1991) applies to this community as well. BlueIQ ambassador information site states the following: *“Get involved as a BlueIQ Ambassador - if you aren't already an expert, we'll make you one.”* It is accepted to join to the community to learn from other and gradually to learn to become an expert. There even are separate activities and resource centers for new members to get them a jump-start. While this community has started out as a collection of experts is has also adjusted its practices and mindset

to accommodate inexperienced, but enthusiastic members.

Various elements of social capital were found from this community but not only specific to it. While the network formed by the community was lacking closure and weak ties existed a lot between the members as well as between BlueIQ members and other community members, some types of social capital seemed to operate in a larger level. One BlueIQ member highlighted this with their statement, that: “*Social capital is dispersed, not concentrated*”.

The structural social capital consists of two parts. Firstly, personal networks created by people with the help but not strictly limited to communities, and secondly the larger social network consisting of community members. Community offers an efficient way for building personal networks while it brings individuals interested in same topics together and eases the task of finding like-minded colleagues. These personal networks have become more and more important resources for individuals while it seems that a lot of communication and information resources are moved away from the communities to people’s own profile boards. While the network formed by the community is dispersed and linked to many other communities, richer information is available for the members. From the organizational point of view this facilitates information dissemination between geographical location and organizational units. The exchange of ideas between dissimilar members might also increase the company’s innovation capability. In addition to being able to easily connect with fellow IBMers and creating weak ties, stronger relationships are also created in cyberspace. Some members had even been able and willing to create friendships online and taken those friendships offline as well. While weak ties offer information benefits, strong ties could be thought to facilitate collaboration towards the common benefit.

Cognitive social capital in this community consists predominantly of common context and stories or narratives. Stories were used extensively as a mean of communicating with each other especially about the challenges of being an ambassador. They enabled members to share their frustrations and gain support from other members. Stories also compose a history for the community through which new members can more easily learn to understand the common context and identify with the community.

Formation of norms was not obviously specific to this one community, but rather certain norms

such as the norm of sharing knowledge and the norm of reciprocity seemed to apply to a larger group of people. It was also observed that norm development might be enhanced due to online communication, while individual acts of good deed are more widely visible to the community as in the case of face-to-face communities. One thing characterizing this community was the existence of a strong identity and identification with the group. Members felt to be ambassadors, which possibly was one of the reasons in making them acting according to that promise.

Different elements of social capital found in this study have been summarized Table 2 below. The table also describes how a certain element was represented in the community life.

Dimension	Element of social capital	Representations
Structural	Presence or absence of network ties	Community as a resource for building personal networks
	Closure	Lack of closure due to the large amount of “boundary spanners” (member belonging to many communities)
	Tie strength	Mutual existence of strong and weak ties
Cognitive	Narratives / Stories	Success stories used internally and externally, “war stories” shared among members
	Common context	Common goal of members, meaning associated to social software tools
	Artifacts	“Tagfriday” movement, template activity tracking employee performance
Relational	A collectivist or a group norm	Cooperation, orientation towards and commitment to group goals
	(A norm of) reciprocity	Receiving help while sought after, desire to help others without counter favors, norm of information sharing
	Identification and identity	“We spirit”,
	Expectations	An implicit expectation to “evangelize”
	Friendship	Strong friendships developed with co-members

Table 2: Summary of elements of social capital and their representations

While I myself have been active only in a handful of communities which all deal with same topics it is impossible to say whether some of the aspects of social capital such as norms apply rather to the whole online IBM or only to the parts I have seen. Still to me it appeared as a new world where people are friendlier, more cooperative and more willing to help as the enterprise I had learned to know locally. A following extract describes this phenomenon of “the other IBM”:

“A large part of IBM is still very heads-down. They feel that they don’t have the time to share or

to learn about these new tools, but you have a small and growing fraction of IBM that is increasingly connected and is increasingly capable of sharing really derive a lot of benefit in doing so. So you know, knowledge is power, but rather than knowledge held knowledge shared is power. It has been interesting to see the evolution of the workplace. It's really starting to favour the people who share and the people who get more visibility. We are seeing more and more this idea to take hold in the overall culture."

5.2 Managerial implications

While social capital is something that is formed because of social interactions among people, it would logically be thought to be out of the hands of management. I have proven the existence of an online community and creation and maintenance of social capital to be possible also inside the company's firewall, but more research would be needed on the benefits or disadvantages of this social capital. Some possible benefits were discussed the information and knowledge benefits being the most visible ones.

Inkpen and Tsang (2005: 160) propose companies to manage and build social capital proactively for effective and efficient knowledge transfer to occur. Lesser (2000: 13-16) even gives instruction on building social capital in organizations. In order to promote the creation of social capital, organizations should:

- Foster the development of communities of practice
- Create experiences that build trust among individuals
- Allow time for people to build common context and understanding
- Use appropriate technologies to support network formation and maintenance

So as with face-to-face communities, it seems that as opposed to managing online communities and social capital, these must rather be nurtured and enabled. What organizations can do is to offer the technology to support the creation of communities by allocating resources and offering other forms of support. But ultimately the online social world lives its own life and cannot be

forced.

While at IBM social capital seems to be dispersed rather than concentrated because of many overlapping communities, a more guiding, but not restricting approach to community management could be considered. While currently starting a community is possible for anyone in the company a more controlled way in starting a community might prevent the overlapping, while many similar communities currently seem to eat resources from each other. So even though management is not encouraged or even possible a more coordinated view on supporting the communities is recommended.

Individual communities also need to be nurtured in order for them to be effective. This might not always be possible simply with voluntary resources, and strategically important communities should possibly be allocated people resources to help in keeping community going, healthy and alive.

5.3 Further research possibilities

While I have found some elements of social capital in an intra-organizational online community, the list is by no means a comprehensive one. I believe that social capital framework could suitably be used in organizational studies even when the object of study is a virtual one. One particular area in organizations where social capital framework could be benefited of is the one of knowledge management. Even though knowledge can not be managed, social capital support the collective view on knowledge and could possibly be used more in understanding the implications of deploying social software tools for organizational knowledge processes.

Another topic of research could be to study the benefits and disadvantages of social capital more closely, especially in an environment such as the one I used in this study. Under what conditions different types of social capital lead to benefits for individuals and the collective and under what conditions can they even lead to disadvantages? Hence for understanding the real value of social capital, more research would be required.

In the field of community studies an interesting research possibility would be in investigating what makes a virtual community (inside a company) work, and what causes community to face

away. Finding reasons for community success would offer valuable insights for community managers inside and outside companies.

6 References

- Adler, P. S. & Kwon, S-W. (2002) Social Capital: Prospects for a new concept, *The Academy of Management Review*, 27 (1): 17-40.
- Baker, W. E. (1990) Market networks and corporate behavior, *The American Journal of Sociology*, 96 (3): 589-625.
- Baron, J. & Hannan, M. (1994) The impact of economics on contemporary sociology, *Journal of Economic Literature*, 32: 1111-1146.
- Belliveau, M. A., O'Reilly, C. A. & Wade, J. B. (1996) Social capital at the top: Effects of social similarity and status on CEO compensation, *Academy of Management Journal*, 39 (6): 1568-1593.
- Bian, Y. (1997) Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China, *American Sociological Review*, 62 (3): 366-385.
- Blanchard, A.L. & Horan, T (1998) Virtual Communities and Social Capital, *Social Science Review*, 16 (3): 293-307.
- Blanchard, A.L. & Markus, M.L. (2003) The Experienced "Sense" of a Virtual Community: Characteristics and Processes, *ACM SIGMIS Database*, 35 (1): 64-79.
- Blanchard, A. (2004) The Effects on Dispersed Virtual Communities on Face-to-Face Social Capital. In Huysman, M. & Wulf, V. (Eds.) *Social capital and information technology 3*: 53-73. Cambridge, MA: MIT Press.
- Boulos, M. N. K. & Wheeler, S. (2007) The emerging Web 2.0 social software: an enabling suite of sociable technologies in health and health care education, *Health Information and Libraries Journal*, 24: 2-23.
- Bourdieu, P. (1986) The Forms of Capital in Richardson, J. G. (Ed) *Handbook of Theory and Research for the Sociology of Education 9*: 241-258. New York: Greenwood Press.
- Bresnen, M., Edelman, L., Newell, S., Scarbrough, H. & Swan, J. (2004) The Impact of Social Capital on Project-Based Learning. In Huysman, M. & Wulf, V. (Eds.) *Social capital and information technology 1*: 1-15. Cambridge, MA: MIT Press.
- Brint, S. (2001) Gemeinschaft revisited: A critique and reconstruction of the community concept, *Sociological Theory*, 19 (1): 1-23.
- Brown, N. R. (2002) "Community" Metaphors Online: A Critical and Rhetorical Study Concerning Online Groups, *Business Communication Quarterly*, 65 (2): 92-100.

- Burt, R. S. (1992) *Structural holes: The social structure of competition*. Cambridge: Harvard University Press.
- Burt, R. S. (1997) The contingent value of social capital, *Administrative Science Quarterly*, 42 (2): 339-365.
- Carotenuto, L., Etienne, W., Fontaine, M., Friedman, J., Muller, M.J., Newberg, H., Simpson, M., Slusher, J. & Stevenson, K. (1999) CommunitySpace: Towards flexible support for voluntary knowledge communities. Presented at Changing Places workshop, London UK, April 1999.
- Chiang, I-P., Huang, C-Y. & Huang, C-W. (2009) Characterizing Web Users' Degree of Web 2.0-ness, *Journal of the American Society for Information Science and Technology*, 60 (7): 1349-1357.
- Coleman, J. S. (1988) Social capital in the creation of human capital, *American Journal of Sociology*, 94 (supplement): 95-120.
- Courtright, C. & Kling, R. (2003) Group behavior and learning in electronic forums: a sociotechnical approach, *Information Society*, 19: 221-235.
- Cross, R., Parker, A., Prusak, A. & Borgatti, S. P. (2001) Knowing what we know: Supporting knowledge creation and sharing in social networks, *Organizational Dynamics*, 30 (2): 100-120.
- Daniel, B., Schwier, R. A. & McCalla, G. (2003) Social Capital in Virtual Learning Communities and Distributed Communities of Practice, *Canadian Journal of Learning and Technology*, 29 (3). Available at: <http://www.cjlt.ca/index.php/cjlt/article/view/85/79> (Accessed 26th of April, 2009)
- Davenport, T. H. & Prusak, L. (1998) *Working Knowledge: How Organizations Manage What they Know*, Boston, Massachusetts: Harvard Business School Press.
- Drentea, P. & Moren-Cross, J. L. (2005) Social capital and social support on the web: the case of an internet mother site, *Sociology of Health & Illness*, 27 (7): 920-943.
- Fernback, J. (1999) There Is a There There – Notes Towards a Definition of Cybercommunity, Jones, S. (Ed.) *Doing Internet Research, Critical Issues and Methods for Examining the Net*, 10: 203-220. London, UK: Sage Publications.
- Gabbay, S. M. & Leenders, R. Th. A. J. (2001) Social Capital of Organizations: From Social Capital Structure to the Management of Corporate Social Capital in Gabbay, S. M. & Leenders, R. Th. A. J. (Ed.) *Social Capital of Organizations*, 1-21. Bingley, UK: Emerald Group Publishing Limited.
- Gabbay, S. M. & Zuckerman, E. W. (1998) Social capital and opportunity in corporate R&D: The contingent effect of contact density on mobility expectations, *Social Science Research*, 27 (2): 189-217.

- Goffman, E. (1989) On Fieldwork, *Journal of Contemporary Ethnography*, 18 (2): 123-132.
- Granovetter, M. S. (1973) The strength of weak ties, *Journal of American Sociology*, 78 (6): 1360-1380.
- Gubbins, C. & Garavan, T. N. (2005) Studying HRD Practitioners: A Social Capital Model, *Human Resource Development Review*, 4 (2): 189-218.
- Hall, H. & Graham, D. (2004) Creation and recreation: motivating collaboration to generate knowledge capital in online communities, *International Journal of Information Management*, 24: 235-246.
- Hammersley, M. & Atkinson, P. (1995) *Ethnography: Principles in Practice*. 2nd edition. London: Routledge.
- Haythornthwaite, C., Kazmer, M. M., Robins, J., & Shoemaker, S. (2000) Community development among distance learners: Temporal and technological dimensions, *Journal of Computer-Mediated Communication* 6(1). Available at: <http://jcmc.indiana.edu/vol6/issue1/haythornthwaite.html> (Accessed 3rd of October, 2009)
- He, W., Xu, L., Means, T. & Wang, P. (2009) Integrating Web 2.0 with the Case-Based Reasoning Cycle: A Systems Approach, *Systems Research and Behavioral Science*, 26: 717-728.
- Hersberger, J. A, Murray, A. L. Rioux, K. S. (2007) Examining information exchange and virtual communities: an emergent framework, *Online Information Review*, 31 (2): 135-147.
- Hine, C. (2000) *Virtual Ethnography*. London: Sage Publications.
- Hislop, D. (2005) *Knowledge Management in Organizations, A Critical Introduction*. New York: Oxford University Inc.
- Inkpen, A. C. & Tsang, E. W. K. (2005) Social Capital, Networks and Knowledge Transfer, *Academy of Management Review*, 30 (1): 146-165.
- Jacobs, J. (1964) *The Death and Life of Great American Cities*. New York: Random House.
- Jones, Q. (1997) Virtual communities, virtual settlements, and cyber-archaeology: A theoretical outline, *Journal of Computer-Mediated Communication*, 3 (3). Available at: <http://jcmc.indiana.edu/vol3/issue3/jones.html> (Accessed 5th of October, 2009)
- Kimble, C. & Hildreth, P. (2005) Dualities, distributed communities of practice and knowledge management, *Journal of Knowledge Management*, 9 (4): 102-113.
- Kozinets, R. V. (1997) "I Want to Believe": A Netnography of The X-Philes' Subculture of Consumption, *Advances in Consumer Research*, 24 (1): 470-475.

Kozinets, R. V. (2006) "Netnography 2.0," in Russell W (Ed.) *Handbook of Qualitative Research Methods in Marketing* 129-142. Cheltenham: Edward Elgar Publishing.

Kraatz, M. S. (1998) Learning by association? Interorganizational networks and adaptation to environmental change, *Academy of Management Journal*, 41 (6): 621-643.

Krackhardt, D. (1992) The Strength of Strong Ties: The Importance of Philos in Organizations. In Noria, N. & Eccles R. G. (Eds.) *Networks and Organizations: Structure, Form and Action* 8: 261-239. Boston, MA: Harvard Business School Press.

Lam, A. (2000) Tacit knowledge, organizational learning and societal institutions: an integrated framework, *Organization Studies*, (21) 3: 487-513.

Leave, J. & Wenger, E. (1991) *Situated Learning. Legitimate Peripheral Participation*, Cambridge University Press, Cambridge.

Lin, N. (1999) Social Networks and status attainment, *Annual Review of Sociology*, 25: 467-487.

Lin, N. (2001) *Social Capital: A Theory of Social Structure & Action*. New York: Cambridge University Press

Lin, N., Ensel, W. M. & Vaughn, J. C. (1981) Social Resources and Strength of Ties: Structural Factors in Occupational Status Attainment, *American Sociological Review*, 46 (4): 393-405.

Lin, N. & Erickson, B. H. (2008) Theory, Measurement, and the Research Enterprise on Social Capital. In Lin, N. & Erickson, B. H. (Ed.) *Social Capital, An International Research Program* 1: 1-24. New York: Oxford University Press Inc.

McAfee A. (2006) Enterprise 2.0: the dawn of emergent collaboration, *MIT Sloan Management Review*, 47 (3): 21-28.

Mannarini, T. & Fedi, A. (2009) Multiple senses of community: the experience and meaning of community, *Journal of Community Psychology*, 37 (2): 211-227.

McMillan, D. W. & Chavis, D. M. (1986) Sense of community: Definition and theory, *Journal of Community Psychology*, 14: 6-23.

Meyerson, D. E. (2003) *Tempered Radicals: How everyday leaders inspire change at work*. Cambridge, MA: Harvard Business School Press.

Newton, K. (1997) Social capital and democracy, *American Behavioral Scientist*, 40 (5): 575-586.

Putnam, R. D. (2000) *Bowling Alone: the Collapse and Revival of American Community*. New York: Simon & Schuster.

- Nahapiet, J. & Ghoshal, S. (1998) Social capital, intellectual capital, and the organizational advantage, *Academy of Management Review*, 23 (2): 242-266.
- Nguyen, L., Torlina, L., Peszynski, K. & Corbitt, B. (2006) Power relations in virtual communities: An ethnographic study, *Electronic Commerce Research*, 6 (1): 21-37.
- Orr, J. 1990. Sharing knowledge, celebrating identity: Community memory in a service culture. In Middleton, D. & Edwards D. (Eds.) *Collective remembering*: 169-189. London: Sage.
- Parks, M. (1996) Making Friends in Cyberspace. *Journal of Communication*, 46 (1), 80-97.
- Petróczi, A., Nepusz, T. & Bazsó, F. (2007) Measuring tie-strength in virtual social networks, *Connections*, 27 (2): 39-52.
- Putnam, R. D. (1995) Bowling Alone: America's Declining Social Capital, *Journal of Democracy*, 6 (1): 65-78.
- Putnam, R. D. (2000) *Bowling Alone: the Collapse and Revival of American Community*. New York: Simon & Schuster.
- Porter, C. E. (2004) A Typology of Virtual Communities: A Multi-Disciplinary Foundation for Future Research, *Journal of Computer-Mediated Communication*, 10 (1). Available at: <http://www3.interscience.wiley.com/cgi-bin/fulltext/120837908/HTMLSTART> (Accessed 5th of October, 2009)
- Portes, A. (1998) Social Capital: Its Origins and Applications in Modern Sociology, *Annual Review of Sociology*, 24: 1-24.
- Ravenscroft, A. (2008) Social software, Web 2.0 and learning: status and implications of an evolving paradigm, *Journal of Computer Assisted Learning* 25: 1–5.
- Rheingold, H. (1994). A slice of life in my virtual community. In Harasim, L. M. (Ed.), *Global networks: Computers and international communication* (pp. 57–80). Cambridge, MA: MIT Press.
- Ridings, C. M., Gefen, D. & Arinze, B. (2002) Some antecedents and effects of trust in virtual communities, *Journal of Strategic Information Systems*, 11: 271–295.
- Rovai, A.P. (2002) Sense of community, perceived cognitive learning, and persistence in asynchronous learning networks, *Internet and Higher Education*, 5: 319 – 332.
- Sandefur, R. L. & Laumann, E. O. (2000) *A Paradigm for Social Capital*. In Lesser, E. R. (Ed.) *Knowledge and Social Capital – Foundations and Applications*, 4: 69-88. Woburn: Butterworth-Heinemann.
- Smith, M. S. (2008) Social Capital in Online Communities, *Proceeding of the 2nd PhD workshop on Information and knowledge management*.

Srinivasan, R. (2007) Ethnomethodological Architectures: Information Systems Driven by Cultural and Community Visions, *Journal of the American Society for Information Science and Technology*, 58 (5): 723-733.

Steinfeld, C., DiMicco, J. M., Ellison, N. B. & Lampe, C. (2009) Bowling online: social networking and social capital within the organization. Proceedings of the fourth international conference on Communities and technologies: 245-254.

Syrjänen, A-L. & Kuutti, K. (2004) Trust, Acceptance, and Alignment: The Role of IT in Redirecting a Community. In Huysman, M. & Wulf, V. (Eds.) Social capital and information technology 2: 21-51. Cambridge, MA: MIT Press.

Thomsen, S., Straubhaar, J. and Bolyard, D. (1998) Ethnomethodology and the study of online communities: exploring the cyber streets, *Information Research*, 4 (1). Available at: <http://informationr.net/ir/4-1/paper50.html> (Accessed 19th of October, 2009)

Tsai, W. & Ghoshal, S. (1998) Social capital and value creation: The role of intrafirm networks, *Academy of Management Journal*, 41 (4): 464-478.

Unger, D. & Wandersman, A. (1985). The importance of neighbors: the social, cognitive and affective components of neighboring, *American Journal of Community Psychology*, 13 (2): 139–170.

van den Hooff, B., de Ridder, J. & Aukema, E. (2004) Exploring the Eagerness to Share Knowledge: The role of Social Capital and ICT in Knowledge Sharing. In Huysman, M. & Wulf, V. (Ed.) Social Capital and Information Technology 7: 163-186. Cambridge: The MIT Press.

Wang, Y., Yu, Q. & Fesenmaier, D. R. (2002) Defining the virtual tourist community: implications for tourism marketing, *Tourism Management*, 23: 407–417.

Wanger, J. (1995) Studies of individualism-collectivism: Effects on cooperation in groups, *Academy of Management Journal*, 38 (1): 152-172.

Ward, K. J. (1999) Cyber-ethnography and the emergence of the virtually new community, *Journal of Information Technology*, 14: 95-105.

Wasserman, S. & Faust, K. (1994) Social network analysis: methods and applications. Cambridge: Cambridge University Press.

Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M. Haythornthwaite, C. (1996) Computer networks as social networks: Collaborative work, telework and virtual community, *Annual Review on Sociology*, 22: 213-238.

Widén-Wulff, G. & Tötterman, A-K. (2010) A Social Capital Perspective on Collaboration and Web 2.0 in Dumova, T. & Fiordo, R. (Eds.) Handbook of Research on Social Interaction

Technologies and Collaboration, Concepts and Trends, 10: 101-109. Hershey: IGI Global.

Williams, D. (2006) On and Off the 'Net: Scales for Social Capital in an Online Era, Journal of Computer-Mediated Communication, 11: 593–628.