Virtual Leadership

How leaders secure performance

when outside immediate

proximity of their employees

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"The smile is the shortest distance between two people"

Victor Borge

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EXECUTIVE SUMMARY

The purpose of this thesis is to study the leadership challenges facing virtual teams and build a theoretical concept based on case study research that answers the research question – *how leaders can secure performance when outside immediate proximity of their employees.*

Empirical data for this thesis is collected from qualitative interviews with key informants from six virtually organised international companies – 37signals, Joost, Polycom, Storyplanet, Wildbit and Workstreamer. In conversing between theory and data, we identify fifteen actions taken by virtual leaders in everyday practices. These actions are grouped into three analytical levels – *structuring*, *empowering* and *enacting* - inspired by Mintzberg, Andersen and Weick.

In enfolding further literature by Czarniawska, Nymark, Senge, Goffee & Jones and Rollinson, we shape our nine hypotheses about performance-securing virtual leadership, from which we base our concept that emphasises the importance of the leader as a *narrator*, telling stories that pass on guidelines, inspire and lead to productivity; the leader as a *connector*, maintaining a culture high on sociability and solidarity; and the leader as a *director*, defining procedures, tasks and pointing towards a state of sensemaking productivity.

The contributed concept of virtual leadership is valuable to researchers as well as practitioners in the provision of a causal, coherent and meaningful understanding of the processes behind virtual leadership and in pointing to actions for improving practices.

Keywords: Virtuality, virtual teams, virtual leadership. organisational theory, enactment, empowerment, storytelling, ICT.

RESUMÉ

Formålet med dette speciale er at studere udfordringerne for virtuelt lederskab og etablere et teoretisk begreb på baggrund af empiristyret forskning, der svarer på problemformuleringen – *hvordan ledere kan sikre præstation, når de befinder sig udenfor umiddelbar nærhed af deres medarbejdere.*

Det empiriske materiale for dette speciale er indsamlet i form af kvalitative interviews med særligt udvalgte informanter fra seks virtuelt organiserede internationale virksomheder – 37signals, Joost, Polycom, Storyplanet, Wildbit og Workstreamer. I konversationen mellem teori og empiri identificerer vi femten handlinger, der udføres af virtuelle ledere i hverdagssammenhænge. Disse handlinger er grupperet i tre analytiske niveauer – strukturerende, empowering og enacting – inspireret af Mintzberg, Andersen og Weick.

Ved indføjningen af yderligere litteratur fra Czarniawska, Nymark, Senge, Goffee & Jones og Rollinson former vi vores ni hypoteser om præstationssikrende virtuelt lederskab, ud fra hvilke vi baserer vores begreb, der betoner vigtigheden af lederen som en *fortæller*, der fortæller historier, der viderebringer retningslinjer, inspirerer og leder til produktivitet; lederen som en forbinder, der vedligeholder en kultur rig på socialisering og solidaritet; og lederen som en vejviser, der definerer procedurer, opgaver og peger i retning af en tilstand af meningsskabende produktivitet.

Begrebet om virtuelt lederskab, som dette speciale har bidraget med, er værdifuldt for forskere såvel som for praktikere i form af tilvejebringelsen af en kausal, sammenhængende og meningsfuld forståelse af processerne bag virtuelt lederskab og i form af understregningen af de handlinger, der kan forbedre praksisserne.

Nøgleord: Virtualitet, virtuelle teams, virtuelt lederskab. organisationsteori, enactment, empowerment, storytelling, ICT.

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FOREWORD

"How about the challenges associated with what we are doing here?".

It was the beginning of February 2009 and because one of us was based in Munich for a semester abroad we were communicating virtually through the free video-conferencing tool Skype. The purpose of the meeting was to discuss whether we should collaborate on writing the Master's Thesis and weigh top candidates for the topic.

Virtual teams and leadership thereof was a relevant topic. Both of us had backgrounds as entrepreneurs and had experienced the challenges and benefits of communicating and collaborating virtually.

Throughout the process of writing this thesis, we have received a number of highly appreciated contributions. We would like to acknowledge the help of the following.

For guiding us and passing on tips, we thank Anders Bordum, Torkil Clemmensen, Susan Gold, Torben Elgaard Jensen, Clay Shirky and Ulf Wernberg-Møller.

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And for clear, wise and personal counselling, we thank Robert D. Austin.

Finally, thoughts go to friends, families and girlfriends for support throughout the year.

Cordes & Malling
December 2009

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LIST OF MODELS

CHAPTER 1

INTRODUCTION

This chapter is about setting the tone for the method, content and objectives of this thesis.

First, we present the motivation along the lines of the problem statement. Second, we define the research question guiding the thesis. Third, we clarify our research assumptions. Fourth, the purpose of the paper is introduced. Fifth, the delimitations of the project are settled. Sixth, the field in which our research will take place is presented. Seventh, we clarify the main concepts used throughout the thesis. And finally, we display the dispostion in detail.

Problem area

Organisations as we have come to know them throughout the 20th century are changing. Traditional corporate boundaries are beginning to blur and transform internally as well as externally. Instead, decentralised, modular structures characterised by autonomy, cooperation and indirect leadership are becoming the norm (Picot et al., 2008:2). This development is firstly associated with changes in competition and the need for competing globally. Secondly, it is a consequence of landmark improvements in the field of technology and the increased use of information and communication technology (known as ICT), most frequently communication via e-mail, use of web pages and video conferencing. Thirdly, the nature of work has seen a shift from a production-orientation towards service and knowledge-based work environments (Bell & Kozlowski, 2002) within cultural industries (Caves, 2000; Hesmondhalgh, 2007).

These trends have led to the formation of teams with geographically distributed members (Jarvenpaa & Leidner, 1999) working together for a common purpose. The organisational configurations have been labelled with many different names: Network organisations, telework, cooperative networks, virtual organizational structures and telecooperation (Picot et al., 2008). These should be seen as reactions to new markets and competitive environments that are influenced by modern information and communication technologies.

Virtual teams differ fundamentally from traditional collocated teams in three different ways (Bell & Kozlowski, 2002). First, virtual teams are subject to *logistical* problems, as they are forced to coordinate across time zones and physical distances. Second, in virtual teams, *interpersonal* issues are a challenge along with the task of establishing effective working relationships. Third, virtual teams depend highly on *technology* and have to invest in getting the appropriate equipment.

The usage of virtual teams has undergone a significant growth. In 2008, it was estimated that 8.4 million employees in USA were members of virtual teams and worldwide that 41 million corporate employees would be spending at least one day a week as a virtual worker. Furthermore, it was estimated that 100 million would work from home at least one day a month (Jury, 2008). The relevance of understanding the mechanisms of virtual

teams was emphasised by Martins (2004:823): Virtual teams are "*increasingly prevalent in organizations and, with rare exceptions, all organizational teams are virtual to some extent. Given their ability to transcend the traditional constraints of time, location, social networks, and organizational boundaries, VTs* [virtual teams] *can enhance the competitive flexibility of organizations*". Interestingly, the study of virtual teams can also help us recognize the new conditions and environments laid out for traditional organisations.

The direct benefits of working with virtual teams are: Increased productivity, reduced real estate expenses, employee satisfaction due to the ability of accommodating both personal and professional lives, access to global markets, the ability to hire best people regardless of location and environmental benefits due to less travelling (Cascio, 2000).

Virtual organisations presupposing ***spatial distance*** → Physical separation intensifying ***use of ICT*** → Lack of face-to-face contact ***challenges leadership*** → Need for meaningful concept of *virtual leadership*
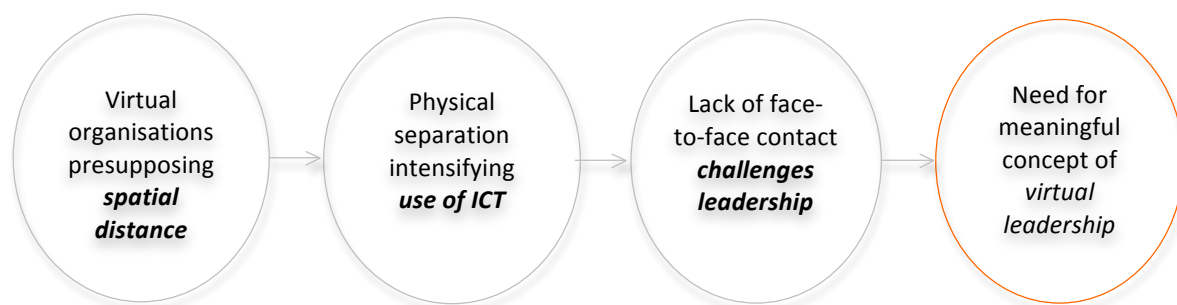
Model 1 - Need for a concept of virtual leadership

The most important characteristic of virtual teams according to Bell & Kozlowski (2002) is that they cross spatial boundaries, as opposed to collocated teams where all members work in close proximity to each other.

Physical separation necessitates wide usage of information and communication technology, such as video conferencing and e-mail. These tools help maintain linkages across the team and facilitate productive work processes. Namely the role of intermediary technology, the ability for organisational members to work with the technology and the absence of face-to-face communication challenges coordination requirements of virtual leaders.

Communication taking place through intermediary technology leads to greater difficulty due to reduced body language cues, lack of interpersonal spontaneity and increase of asynchronous communication. It may be difficult for a virtual leader to be 'visible' in performing leadership functions as a result of the lack of face-to-face

communication. Importantly, the virtual leader's control over the work processes are being minimised under these circumstances.

The critical success factor in overcoming the challenges brought on by a complex communication environment is the *leadership* of the virtual teams. The leader decides where the team is moving, the leader decides the composition of how the organisation is moving and the leader decides whom to include in these compositions.

In short, the question is how the leader can overcome challenges originating from the virtual team's spatial distance between its members, and successfully secure performance.

Research question

> *How can leaders secure performance when outside immediate proximity of their employees?*

Our research question focuses on the actions required by the leader to ensure a satisfactory level of performance delivered by employees in the virtual team.

The conflicting tension field is between the leader's need *to control* ("secure performance") that goals are being met and the *spatial* distance between the leader and the employee ("outside immediate proximity"). Due to the experienced distance, the leader is directly disentangled from the object of leadership, since the employee concretely has been placed out of sight. Instead, the leader must substitute direct supervision and immediate interpersonal contact with a new set of guidelines.

Assumptions

Our research question holds two primary assumptions.

First, we assume that leaders require a degree of control of the work being done in

order to ensure that goals are being met on time and that deliverables live up to set targets for quality.

Second, we assume that spatial distance caused by working in virtual teams bring about challenges concerned with interpersonal detachment, loss of non-verbal communication cues and decrease of informal communication.

Purpose of paper

The aim of this thesis is two-fold. Our ambition is to both contribute to the theoretical field of research and to the practice of virtual leaders.

Relevance for research

Virtual teams comprise a relatively new organisational discipline that still needs a strong concept for the role of leadership.

Most importantly, the current theory on the research area is found to be troublesome. There is a lack of leadership research within virtual groups (Sosik, Avolio, Kahai, & Jung, 1998; Hoyt & Blasovich, 2003), a lack of empirically-founded theory (Jury, 2008), a lack of theory that serves both research field and practice and a lack of research that examines virtual leadership by itself without comparing it to "traditional" or "conventional" face-to-face teams (Martins et al., 2004:822).

Our ambition is to build a reliable and valid theoretical concept for virtual leadership that can add value to the existing theory and shed new light on how to meet the challenges associated with leading virtual teams.

Relevance for practitioners

As described above, the number of people worldwide taking part in virtual organising is on the rise and the relevance of shedding light on the associated challenges is therefore increasing.

Recent developments have intensified this need even further. Firstly, technological developments have been remarkable in the last few years with highly improved broadband connections, improvements and price reductions to high-performing laptop computers and growing supply of free or cheap Internet software solutions enabling individuals to start up companies and run them virtually. Secondly, the ongoing financial crisis has led many organisations to cut down travelling budgets and instead invest in technology that permits virtual organisation – as one of our interviewees explains: "*we halved our travelling budget by using the whip and at the same time we got so much out of forcing these people to use the technology*" (Dyrmose, 1).

We intend to coin a concept that can also be understood and adopted by exercising leaders of existing virtual teams to improve their everyday practices.

Delimitations

Our research holds a number of limitations.

Firstly, in focusing on the interpersonal challenges of virtual leadership, we will not be discussing the prioritisation of technological tools and facilities in greater detail, since we consider this area one, which is constantly evolving, and one, which is more relevant for discussion among technologically educated researchers than for organisational theory researchers like ourselves.

Secondly, we choose not to interview the employees of virtual teams in order to narrow our focus on the challenges and experiences of leaders.

Research field

To answer our research question, we will be building theory from our case study research assembled on the basis of qualitative interviews with leaders of virtual teams. More specifically, we interviewed seven leaders representing six different companies in three different countries spanning from teams of 4 to organisations of more than 500 people.

Clarification of concepts

In the following, we clarify concepts that are used throughout the thesis. The concepts are: Leaders, employees, virtual teams, organisation and performance.

Leaders

When referring to leaders, we think of persons with formal power to make decisions affecting the organisation and/or virtual team on several legal and economic areas such as allocation of economic resources, hiring and firing of new personnel, etc.

Employees

Employees are members of virtual teams, who are either salaried or contracted.

Virtual teams

A virtual team is or can be a part of larger organisation. This organisation can have people located in the same place (collocated work space), but the virtual teams are not collocated. For a team to be virtual it should display the following characteristics: *"(a) it should foremost be a functioning team, in that it has an interdependent group of individuals who share responsibilities for organisational outcomes", "(b) it should have elements of crossing boundaries, whether regional, functional (intraorganisational), professional, national or organisational", "and (3) it should primarily use technology to support communication within the team, as opposed to utilising face-to-face communication."* (Jury, 2009:13).

Organisation

Organisation is the larger entity in which virtual teams operate.

Performance

Performance is the activity of an individual or a team carried out in the intention to accomplish defined results.

Disposition

This thesis contains seven main chapters and in the following we will outline the purpose and content of each chapter.

Chapter 1: Introduction

Motivation behind the thesis is presented and the main problem – that leaders are disconnected from what they are supposed to lead – is presented in detail. Further, assumption, delimitations, purpose of paper, research field and a clarification of concepts are presented.

Chapter 2: Literature review

Existing literature about virtual teams and organisations, and in particular the leadership thereof, is presented and criticised. The need for building new theory is exhibited, and to lay the basis for the analysis, theory behind the three analytical levels – structuring, empowering and enacting – is presented.

Chapter 3: Methodology

We move on to addressing our own approach to the research field, in particular how we as researchers are epistemologically biased as social constructivists, what method we used for selecting theory, how we collected empirical data, what guidelines we had for the analysis and discussion, and finally the points for our self-critique.

CHAPTER 1	**Introduction**:	Why is leadership in virtual organisations interesting and what are the problems we recognise?
CHAPTER 2	**Literature review**:	What have others written on leading virtual organisations and what theory can be applied?
CHAPTER 3	**Methodology**:	How do we approach the research question and what is our predetermined world-view?
CHAPTER 4	**Analysis**:	Where did we collect our data and what do we discover?

Structuring level	**Empowering level**	**Enacting level**
What structuring actions are taken bv the leaders?	What empowering actions are taken bv the leaders?	What enacting actions are taken bv the leaders?

CHAPTER 5	**Discussion**:	What do our findings about leadership in virtual organisations mean and what concept can we derive at?
CHAPTER 6	**Conclusion**:	How did we answer the research question and how does our methodology fit with our findings?
CHAPTER 7	**Further research**:	What do we still not know and which opportunities should be followed up on?

Model 2 – Disposition of the thesis

Chapter 4: Analysis

In the analysis, we firstly present the six case companies: 37signals, Joost, Polycom, Storyplanet, Wildbit and Workstreamer. Following this establishment of facts, we take the reader through our three levels of analysis – each containing 5 actions. In total, 15 actions, resulting from the coding phases, point towards the everyday practices carried our by leaders of virtual organisations.

Chapter 5: Discussion

The aim of our discussion is to simplify and summarise the rich material of the analysis into single, enriched theoretical concepts that can both add value to the field of research

as well as improve the practice of virtual leaders. Also, we question whether the virtual leadership concept we have derived at is in fact *good theory*.

Chapter 6: Conclusion

The role of the conclusion is to sum up key findings, respond to the research question and the purpose of the paper, and consider how our methodology fits with our findings.

Chapter 7: Further research and limitations

We outline what we still do not know and what further research should seek to focus on in order to strengthen the field.

LITERATURE REVIEW

In this chapter, we will present the content and shortcomings of existing literature in the field of virtual teams and extract the need for a new theoretical concept.

In the second part of the chapter, we present the theory behind the three analytical levels that resulted from our coding processes and that will be utilised to a greater extent in the analysis.

Need for research on virtual leadership

Many researchers have examined virtual teams in general, but few focus on leadership and performance to an extent that is relevant for the purpose of this thesis. In the following section, we review research that touch upon these two fields of interest. We highlight the areas in the research that point out directions for further investigation, but we also address the shortcomings, gaps, and inconsistencies that permeates it. The research falls into four main areas which are explored below: First, the need for leaders to monitor and measure performance. Second, how leaders coordinate and organise their employees. Third, how leaders act as mentors and generators of trust. Fourth, how leaders display both transformational and transactional leadership styles.

Monitoring and measuring performance

Before asking the question of how leaders secure performance in virtual settings, one could ask the question: is control necessary in the first place? Could virtual teams not solve tasks efficiently by themselves? Piccoli et al. (2004) seek to answer this question by conducting a study of the impact of managerial control on team effectiveness. In the study, teams were either self-directed or under behavioural control. Self-directed meant that no formal procedures or rules were in place. Rather, the socialisation processes would identify and reinforce the norms, values and goals relevant to the team. For the teams under behavioural control rules and procedures were articulated and formalised (Piccoli et al., 2004:361-62). Complying with these would result in rewards. No leaders were appointed and weekly reports wherein teams had to document their project plan, work assignments, and progress acted as behaviour control procedures (Piccoli et al., 2004:368).

Interestingly, team performance was not significantly influenced by the teams' control structure. However, the study failed to examine if a leader would have any effects on performance of the teams. It is reasonable to argue that leaders would be able to establish more dynamic and meaningful formal procedures than weekly reports while simultaneously developing norms and setting goal in cooperation with team members.

The study shows gaps in not examining the role of human leadership, but offers an opportunity for this thesis to investigate this particular phenomenon.

Other studies explore the strategies managers can adopt to monitor and ensure performance of their teams. Kurland & Egan (1999) find that managers can overcome the challenge of monitoring performance when the employees are physically unobservable by adhering to three strategies. First, for managers to rely on objective, written records of results, not the manager's subjective views. Second, to make available performance requirements and job descriptions for the particular position in the organisation. Third, formalise communication between manager and employee (Kurland & Egan, 1999:502). These strategies have relevance to the present thesis as they point to a need for structuring and formalisation of organisational processes.

However, the research suffers from a number of shortcomings. Firstly, the researchers remark that few significant relationships were found between employees working virtually and the three strategies, which suggest that they are not implemented effectively or at all in the organisations (Kurland & Egan, 1999:511). It seems illogical that virtual leaders would not instil, at least some of these procedures and that these initiatives would have an effect on the employees. This suggests that the Kurland & Egan study has some inherent defects or blind spots. Secondly, both the focus and method of this research is different from that of this thesis. Their focus is on employees' perception of organisational justice and not the leaders role in securing performance. In regard to method, they used mail surveys where 191 employees of 11 organisations answered a questionnaire. While surveys are useful for confirming or dismissing set hypotheses, they have limited use when seeking to explore a complex phenomenon like leadership, which is the aim of this thesis.

In order for leaders to measure performance of their employees, Kirkman et al. (2002) propose strategies to harness both qualitative and quantitative data. A balanced scorecard is suggested to determine team and individual performance with objective and quantifiable measures. By monitoring electronic group communication, managers can determine subjective factors that contribute to team performance including taking leadership roles during team meetings, idea generation, suggesting quality improvements, and helping new members off-line, etc. This mix of performance data equips managers to meaningfully recognise and reward team and individual

performance, develop training programmes, and identify employees with issues that could better be addressed face-to-face (Kirkman et al., 2002:75-76). The strategies are useful to this thesis insofar as they point to the need for measuring performance by both objective measurement tools and subjective parameters. The research, however, has shortcomings. Because of its focus on providing instructions for practitioners, it fails to develop a theoretical model of leadership, which other researchers could investigate.

Coordination and organisation skills of leaders

Furst et al. (2004) identifies four stages in a typical virtual team's project life cycle and explores how managers can intervene in the specific stages to optimise performance. In the formation stage, solid previews, exercises for mission statements and assistance in building team identity are useful managerial strategies for getting virtual project teams off to a fast start. When entering the storming stage, most teams experience frustration and conflict and should therefore benefit from managerial interventions to source appropriate procedures. Arrived at the norming stage, it is of particular importance for managers to encourage teams to establish a strong work ethic and create mechanisms for holding members accountable for meeting deadlines. Finally, for enhancing team performance at the performing stage managers should monitor progress against objectives and timelines while facilitating brainstorming and decision-making (Furst et al., 2004:17-18). We find it useful, in exploring leadership, to be attentive of these organisational skills necessary at different points in time of virtual teams' project life cycle, but the research has some inconsistencies that speak against its general applicability. The teams that the research investigates have few similarities with real world organisations as they were designed for the study and had no formal leaders but a sponsor without responsibility for the quality of the deliverables. Furthermore, team members had no prior experience with working in virtual teams and had to keep up their normal schedule in their collocated work place.

Cascio (2000) views the biggest challenge in working virtually to be performance management. Herein, three schemes are of significant importance: Definition, facilitation and encouragement. Firstly, defining that all team members understand their responsibilities, that specific goals are developed and that there is a regular assessment

of the progress. Secondly, facilitating through the elimination of roadblocks and the providing of adequate resources. Thirdly, encouraging performance by leveraging sufficient rewards in a timely fashion after major accomplishments and in a fair manner (Cascio, 2000:88-89). Similarly with Furst et al. (2004) we conclude from this research the importance of the timeliness when trying to coordinate and organise for optimal team performance. The study has on the other hand some shortcomings. It does not empirically test its management tools and furthermore these tools are intended for practitioners and not researchers.

Leaders as mentors and generators of trust

In Kayworth & Leidner's (2001) study effective leaders demonstrate a mentoring quality that entails a concern for team members, empathy and understanding. Instead of projecting many different roles leaders should be skilled in performing the role as a mentor with written communication skills to clarify roles, maintain a structure to the flows of messages, and exhibit an assertive and caring persona (Kayworth & Leidner, 2001:30-31). These mentoring qualities are noted as fruitful areas for further investigation for this thesis. The research, however, has its limitations as it investigated student teams with limited time frames to produce a report and where team leaders were not allowed to research or write themselves. It is hard to generalise from these laboratory settings to real organisations.

According to Malhorta et al. (2007) leaders should be engaged in establishing and maintaining trust trough the use of communication technology. First, leaders should foster norms on how information is communicated. Second, leaders should facilitate virtual meetings encompassing all team members to continually reassess and improve these norms, their sense of purpose and shared identity. Trust is also generated when leaders treat team members equally and fairly by changing the times of team meetings, so team members in different time zones will have the same amount of meetings on odd hours, and by making progress of tasks and deadlines explicit in a virtual work space so all team members can observe contributions made to the team effort (Malhorta, 2007:62-63). This research becomes relevant as it points us to investigate the social skills of leaders more thoroughly. Unfortunately, the research focused solely on teams

where innovation was the main objective and team members had rarely worked with each other previously. This does not fit with our aim to study organisations and the effects of solving normal work tasks within familiar work groups.

Transactional and transformational leadership

In Jury's (2008) study, both transactional and transformational leadership plays important roles in improving job performance in virtual teams. Transactional leadership means that leaders set goals, clarify desired outcomes, provides feedback and exchange rewards and recognition for accomplishing a certain level of performance. This level is reached in agreement between leaders and employees following negotiations. Transformational leadership involves leaders motivating employees to perform above the organisation's expectations. Leaders ascertain this by addressing employees' individual needs, by convincing employees to transcend their own interests for the good of the organization and by raising awareness about important and valued outcomes. Four behaviours are of significant importance: *Idealised influence* involves leaders considering perspectives, moral issues and the effects of his or her actions on a broader scale, which cause employees to indentify with the leader. *Individualised consideration* means that leaders act as coaches or mentors while understanding and valuing individual views and needs. With *inspirational motivation* leaders set a vision and stimulate employees to work collectively to realise the vision. Finally, by *intellectual stimulation* leaders reframe problems, question assumptions, take risks, and use alternative strategies (Jury, 2008:24-25). The results of this research help us to construct a more nuanced picture of what virtual leadership encompasses. Transactional leadership points us to further investigate the structural and formal processes leaders implement in their organisations. Transformational leadership leads us to further investigate the more intangible and informal processes leaders seek to influence.

Establishing the theoretical framework

This second part of the literature review will present the theoretical framework of the thesis. The following theories are used to understand the actions leaders take to secure performance: Theories on organisational design, management and measurement are used to explain the *structuring* level, theories on culture and self-technologies will be adapted to explain the *empowering* level, and theory on *sensemaking* will be brought in to explain the enacting level.

The structuring level

The structuring level encompasses the actions which leaders take to influence the formal and highly visible boundaries and processes of their organisations. Here, research on leadership of virtual teams pointed us to further investigate the coordination skills leaders must have to secure the performance of their organisations. Theories used to investigate the structuring level are represented mainly by Mintzberg (2001, 1995) and Austin (1996).

As we saw previously in the research of Kirkman et al. (2002), measurement of performance is an extraordinarily important need in virtual organisations. Austin (1996) provides a perspective on how measurements are able to motivate employees. Mintzberg (2001) creates a comprehensive model from literature dealing with managerial roles. The model is useful for elaborating on the coordinating responsibilities that is a necessary part of any organisation.

Mutual adjustment and direct supervision

Mintzberg (1995) proposes six basic coordinating mechanisms that comprise the most fundamental level of the structure that binds the organisation together. For the purpose of this thesis, two coordinating mechanisms are relevant for analysing the coordination actions in virtual teams. First, from *mutual adjustment* employees interact with each

other by communicating information. This is the most obvious way to coordinate, but also a mechanism relied on when trying to perform under extremely difficult circumstances. Second, *direct supervision* is when a leader or manager coordinates employees by giving orders or instructions (Mintzberg, 1995:335-336).

Entrepreneurial organisation and innovative organisation

According to Mintzberg (1995), organisations are structured into six basic parts: The *operating core* consists of the operators, who perform the basic work of producing the products or services of the organisation. All organisations need managers in the *strategic apex* to supervise the system. In larger organisations, a *middle line* of managers is found between the strategic apex and the managers of the operators. Furthermore, outside this line of authority, larger organisations have a *techno-structure* of staff analysts who also administrate work. Similarly, other groups of staff are established to perform internal services for the organisation. These are labelled *support staff*. Also, all organisations possess a unique *ideology* or a strong culture of traditions and beliefs (Mintzberg, 1995:333).

Two of Mintzberg's (1995) seven organisational configurations are relevant for analysing the structures of virtual organisations, where a lack of control and formalisation exists. The *entrepreneurial organisation* is a simple structure where very few top managers are directing the group of operators who perform the basic work of the organisation. Standardisation, formalisation and planning are not implemented to a large extent and middle-line management, support staff and analysts are nearly non-existent. Such organisations are often young and small in size. Mintzberg notes that: "*Not infrequently the chief executive purposely keeps the organization small in order to retain his or her personal control*" (Mintzberg, 1995:348). The organisation is typically found in a dynamic environment where it can match and surpass larger bureaucratic organisations and so it must be flexible (Mintzberg, 1995: 347-348).

The *innovative organisation* is of a more project-oriented structure where specialised experts are put together in efficient and creative teams. These experts collaborate in an organic structure, an *adhocracy*, where coordination is performed based on mutual adjustment. Task forces, matrix structure and integrating managers are means for this

purpose. Teams are formed across the structure and power is decentralised vertically and horizontally according to expertise and need. The environment of innovative organisations is complex and dynamic, and staying on top of this milieu requires different types of experts collaborating to reach highly sophisticated and competitive innovations (Mintzberg, 1995:350-351).

Age and size are situational factors that influence the formalisation of organisations. The older and larger an organisation is, the more formalised its behaviour becomes. Behaviours are repeated, become more predictable and are more easily formalised. The larger an organisation is, the more elaborate its structure becomes. That means the jobs and units become more specialised and administrative components become more developed. As a consequence, more coordination is needed which causes hierarchy to grow in order to better supervise directly, coordinate by standardisation or encourage mutual adjustment (Mintzberg, 1995:343).

Managerial roles

To conceptually fathom the structuring actions of leaders, Mintzberg (2001) provides some useful distinctions. Managerial work can be performed on three different levels: 1) *information* level, 2) *people* level and 3) *action* level. At the most abstract level, the manager can collect and convey information in hope that it will propel people to take action. At the second, more concrete level, the manager can encourage people to act, and at the third level, the manager can manage action directly. These levels can be performed either inside the organisation or outside it. Subsequently, six managerial roles are formed with an externally and internally directed role for each level. They are as follows: In the *controlling* role, the manager uses information to control peoples' work by establishing directives, structures, systems or procedures. In the *communicating* role, the manager seeks and receives information, and shares it either internally or externally. The *leading* role entails managers encouraging and enabling people to act by mentoring and rewarding (individual focus), team building and mediating conflicts (group focus), creating a culture (organisational focus). Managers perform a *linking* role when using a network of contacts to influence the organisation and letting the organisation influence the network. In the *doing* role, the manager

directly influences internal action, directs projects, and mitigates crises and disturbances. Finally, the manager in the *dealing* role is negotiating agreements with external partners (Mintzberg, 2001:759-760)

Motivational measurements

According to Austin (1996), motivational measurements are designed to explicitly affect the employees of an organisation, and to provoke a larger effort in reaching organisational goals. Manifest examples of the use of measurements to motivate are sales bonuses, incentive pay, merit pay, pay-for-performance, or other monetary rewards for performance (Austin, 1996:22). Theoretically, motivational measurements will encourage compliance with the leaders' plans of actions. Leaders of groups have a need for control of the group action, and motivational measurements and associated incentive plans are a response to this need for control. As Austin notes: *"By measuring a group member's performance and explicitly associating rewards with favourable measurements, the group member's incentives are, in theory, brought into alignment with those of the group's leader"* (Austin, 1996:25). If measurements are faulty, they will not align the interest of the parties and an imperfect alignment occurs. This may result in the increased effort being applied in a wrong manner (Austin, 1996:23-25).

The empowering level

The empowering level refers to the actions leaders take to empower employees in order for them to thrive and perform most optimally. Empowerment is not to be understood in the sense of a conscious transfer of formal power from leaders to employees but rather in the sense that leaders create positive circumstances that stimulate the employees to assume responsibility for their own performance.

Following Dew (1997), empowerment is a state of being. In organisations it is when people know that the boundaries give them the freedom appropriate to their experience. Empowering means they are involved in making decisions regarding their work life and the product or service they provide. They are given the knowledge to track their own performance and have a sense ownership and pride for their work and organisation. Empowerment cannot be ordered but has to be organically nurtured to create a system that reinforces the state of empowerment (Dew, 1997:2-3).

As seen previously, the research on transformational leadership by Jury (2008) underlined the importance of the intangible and informal processes leaders seek to influence. To further investigate this research, theories on organisational culture and self-technologies are useful.

Empowering culture

According to Picot et al. (2008), organisational culture is a system of norms and values and is shaped by social interaction over long periods of time. Its constantly changing and complex nature along with no apparent causal relationships makes it difficult to methodically change or manipulate. However, managers can still influence the culture through their own actions and values. They must develop a sensitivity to the culture and continuously deal with the informal rules, the norms and values in order to influence it. A range of fundamental values and attitudes are meaningful for leaders to display and influence the organisational culture with. These are learning and innovation, communication and cooperation, openness and trust, and recognition and fairness (Picot, 2008:455-456).

The boundary between work and non-work is increasingly being dissolved in virtual

work according to Hunter & Valcour (2005; 71). This calls for a need to balance the demands between work and social life. Employees with a high level of self-efficacy are able to do so, since they proactively can plan and organize their workday. Furthermore, the organisational methods to help this balance in place involve giving employees autonomy and flexible conditions and also establishing a culture that values and supports the integration of employees' work and social life (Hunter & Valcour, 2005; 74-75).

Empowering employees through self-technologies

Inspired by the poststructuralist philosopher Michel Foucault, Andersen (2002) develops his concept of self-technologies and bases it on an analysis of the semantic history of the Danish public sector employee. He analyses archives of documents, where public institutions or individual government officials reflect over public employment throughout the 20th century. Based on these policy considerations, he seeks out elaborate concepts that are products of sound argumentation. Moreover, he analyses concepts and personnel policy tools from 1987 and onwards. These concepts and tools are what will later be defined more in-depth as self-technologies (Andersen, 2002:5).

Concepts only obtain meaning through their counter-concepts and in this way they form horizons of meaning. From 1987 and onwards, the conceptual couple involves the employee having responsibility against the employee taking responsibility. The employee should not passively have responsibility as in earlier times but should accept the ideal of flexibility and focus on his or hers own part of the organisational work. Concepts like openness to change, involvement, self-responsibility, and being a complete person all pertains to the semantic of the responsibility-taking employee (Andersen, 2002:10). We believe that similar concepts reside and are reproduced in the discourses surrounding present-day commercial organisations. Business schools, universities, researchers, media, worker unions, think tanks, NGOs, public institutions etc. all articulate the virtues and potential of the modern self-realising employee. If private organisations are influenced by similar discourses we believe that self-technologies are present here as well and their ways of functioning are the same.

The point of departure for self-technologies is the distinction between position and

vocation, or rather *subjecting* and *subjectivation*. Subjecting is when an individual is named subject in a discourse, whereby it becomes part of a space, in which it can speak and act meaningfully. Subjectivation happens when the individual also desires to be this subject. This constitutes a *form of transformation* where the individual gives himself a vocation (Andersen, 2002:14).

An example of this transformation can be found in the articulation of the employee as a complete person. By articulation of the employees as a complete person, it is impossible to merely be an employee having responsibility. A complete employee would logically assume responsibility for his own and the organisation's development. Similarly, articulations like initiative, involvement and adaptability would call for the employee to invoke himself and assume responsibility for the development of competences.

Self-technologies, in Foucault's terms, are technologies with the purpose of the self to address itself. They are procedures that prescribe how an individual defines, maintains, and develops its identity to achieve self-control and self-awareness (Andersen, 2002:15). Two types of technologies can be defined; *technology of interpellation* and *self-technology*.

First, technologies of interpellation are the prescription of operations through which someone can invoke an individual or collective to place and recognise itself as subject-in-a-discourse. These technologies support the subjection of the individual as employee-in-an-organisation.

Second, self-technologies are the prescriptions through which the subjected can go through a transformation and invoke to reach a certain goal or condition. In these technologies, the interpellated employee transforms himself into having responsibility for his own development (Andersen, 2002:16). As examples of clear self-technologies, Andersen (2002) mentions competence and performance reviews, employee contracts, and mutual employee reviews, courses in personal development etc., but the concepts by themselves can facilitate the transformation processes as illustrated by Andersen's (2002:5) assertion that both tools and concepts from his archives can form self-technologies.

The enacting level

The concept of enacment

The term enactment originates from the work of Weick (1979, 1995) and should be conceived as a synthesis intended for organisational settings. Enactment comprises four lines of scholarship: self-fulfilling prophecies, retrospective sensemaking, commitment, and social information processing, and is used to underline that when people act, they bring events into existence and set them in motion. People who act in organisations tend to produce situations constraints, and opportunities that were not present before they took action (Weick, 1995:225).

When we use *enacting* in this thesis, we mean setting the stage for sensemaking (Weick, 1979:147). Important in this context is that enactment is tightly coupled with action – and not just perception or thinking (if so, it would have been labelled en*think*ment). It is referred to as *enactment* because managers construct rearrange, single out, and remove features of their surroundings. When leaders act, they "unrandomise" variables, insert orderliness, and in a sense create their own constraints (Weick, 1979:164).

Process and product

Enactment involves both a process – enacting – and the outcome of this enactment: An enacted environment.

In the first case, the process, the field of experience is "bracketed out" for closer study based on preconceptions. Then people can act within the context of bracketed elements, guided by preconceptions and themselves shape elements in accordance with preconceptions. Thereby, action confirms preconceptions (Weick, 1995:226).

In the second case, the product, enacted environment is the sum of changes produced by enactment. What enactment produces are orderly social constructions subject to multiple interpretations. Open to subsequent questioning is the significance, meaning and content of such constructions (Weick, 1995:226). When an enacted environment is acted upon, it is brought retrospectively into events, situations and explanations.

Enacting in practice

There are three ways to consider enactment in practice.

First, enactment as an experience, where leaders enter clouds of events surrounding them and actively try to unrandomise the events by imposing their order. Following such "unrandomisation", the surroundings are sorted into variables and will appear more orderly (Weick, 1979, 148).

Second, people tend to conclude that constraints exist in their environments, despite often avoiding tests to find out whether they are constraints or not, and this limits their field of action (Weick, 1979:151). Therefore, leaders tend to know much less about their environments and organisations than they think.

Third, leaders in organisations need to act to find out what they have done, just like a person enacting a rebus needs to play out his version of the charade to see what he really is conveying to his observers. This means that the environment, which an organisation worries over, is put there by the organisation (Weick, 1979:152).

Public and private distinction

Enacted environments can take place both in the public space and people's inner cognitions. A publically enacted environment would be a construction visible to observers other than the actor, whereas a privately enacted environment is a map of if-then assertions, in which actions are related to outcomes. Such assertions serve as expectations about what will happen in the future (Weick, 1995:226).

When people act, their reasons for doing things are either self-evident or uninteresting, especially when the actions themselves can be undone, minimised or disowned. Actions that are neither visible nor permanent can be explained with casual, transient explanations. As those actions become more public and irrevocable, they become more difficult to pull back.

Enacting expectations

In organisations, the assumptions that top management make about components within the firm often influence enactment in a manner similar to the mechanism of self-fulfilling prophecies (Weick, 1995:232), because the perceptions of leaders are capable of setting in motion enactments that confirm the perceptions.

> A manager enacts expectations by defining criteria for successful job performance of by shaping the expectations other hold about acceptable behavior or careers prospects.   (Weick, 1995:216)

Enactment of expectations is a very interesting topic in organisational research due to its coupling with performance. When people organise to learn, they may organise to enact expectations and learn from feedback. Further, expectation enactment done locally on a small scale may be the template for related processes on a larger scale (Weick, 1995:216).

For the context of virtual teams, Weick (1995:216) mentions how fewer and weaker boundaries mean that distances between people in terms of authority may decrease, because of increase in diversity of roles, leaders taking more risk and adopting an internal locus of control, and the organisation undergoing change in size, greater mission ambiguity, and more variability in job definitions. These influencers suggest a move towards greater expectation enactment.

On a final note, according to the Weick (1995:183), to control something is to take actions with respect to it. In this sense, organisations have to build their environments before they can even contemplate controlling them. The ways organisations enact their environments cognitively will have strong effects on their abilities to control these environments.

CHAPTER 3

METHODOLOGY

Methodology is the theory of knowledge explaining our epistemological position, from which we study the world. *Method* is the body of principles and practices used to study the field of interest in order to make the world as valid and trustworthy as possible (Fuglsang, 2004:30).

   In our approach to this chapter, we firstly present our world-view; secondly, our selection of theory; thirdly, we go through our selection and thoughts concerning the empirical data; fourthly, the analytical method is introduced; and fifthly, we reflect upon points of self-critique.

Epistemological world-view

Meaning as creation of knowledge

This thesis is based on the social constructivist world-view that we were previously influenced by. Concretely, we have worked on the basis of an epistemological constructivism, meaning that we consider scientific and everyday knowledge about the societal and human reality as constructions. This has consequences for how we perceive and treat the information we receive through our interviews and how we analyse and treat theory (Kvale, 2004:57-59).

The social constructivist world-view lays the fundamental assumption that any knowledge is constructed by the social and historic frames, into which it is written (Fuglsang et al., 2004:349). This means that there exists no universal criteria for truth. On the contrary, there are competing complexes of knowledge between internally connected constructions of knowledge: The knowledge that is generally known as being "naturally true" is that which is capable of keeping other complexes of knowledge at bay.

If one tries to extract "good" knowledge, one therefore has to work against the idea about the existence of a "natural" substance in words and concepts. A "natural" substance is nothing but an expression of a dominating image construed by a complex of power, and if you follow this direction as an uncritical opportunist in relation to a constructed image of the reality, you end up seeing the substance of words and concepts as something given, inherent and constant. You end up as an uncritical opportunist in relation to a not necessarily true perception of the world and knowledge about the world.

To produce "good knowledge" in a social constructivist perspective, one therefore needs to perceive words and concepts as being empty, and thereafter through analysis of the words' and the concepts' concrete use in a practice show what is meant by these words and concepts within such practice. The discursive interaction between people in social settings is emphasised as the medium for meaning to be constructed (Boxenbaum, 2008a:18). When "truth" is constructed, the criteria for judgement of knowledge becomes whether it "works" as intended or whether it is functional or dysfunctional. Based on such scientifically theoretical perspective we have processed the empirical data, worked on the theory and developed analysis as well as interview methods.

Forming new theory rather than testing existing theory

The social constructivist perspective has had consequences for our analytical method. Herein, one can find the underlying reasoning for us having a critical approach to the possibility of confirming theoretical assumptions via empirical observations. This presumed idea about "knowledge" as a construed element means that the aim of the analysis is not to confirm the reproduction of theory in the empirical field, but rather allow for new knowledge to be created as a result of the synthesis between theory and empirical data.

This dynamic understanding of knowledge creation is reflected in our analytical framework, where new knowledge is developed throughout the analysis and discussion. Through the use of Eisenhardt (1989), we follow a research strategy of building theory from case study research, which also refrains us from "only" reaffirming or disconfirming already existing hypotheses in the field.

Despite mentioning the attention given to discourses as a medium for meaning creation, we have not chosen to make a discourse analysis to detect meaning through language but rather draw attention to the broader social meaning, where focus, amongst other concepts and practices, is on interpersonal relations in organisational processes.

Method for theory

Process of selecting theory

 Sourcing and integrating theory has been an ongoing process of enfolding literature (Eisenhardt, 1989), because our empirical data has steered the direction of our realisations. Our field of interest has throughout the process of writing this thesis been on the topic of leading virtual teams, but our approach to the field and thereby also our theoretical stance has gone through different rounds.

The process of selecting theory can roughly be divided into four different steps. First, our interest in the topic and willingness to build an understanding of the field led us to an initial search. This literature included Mowshowitz (2002) who originally

coined the term 'virtual organisation', popular and much cited Lipnack & Stamps (1997) and the recent systematic work of Picot et al. (2008).

Second, we conducted a fully systematic search for books and articles on leadership of virtual teams, work groups and organisations to get a full overview of the research field. This search led us to – among others but most prominently - Piccoli et al. (2004) on managerial control, Kurland & Egan (1999) on performance-securing strategies, Kirkman et al. (2002) on harnessing data for measuring performance, Furst et al. (2004) on the virtual team's project life-cycle, Cascio (2000) of mastering the challenge of performance management, Kayworth & Leidner's (2001) on effective virtual leadership, Malhorta et al. (2007) trust through the use of communication technology on, and Jury (2008) on the role of leadership styles in securing job performance and satisfaction in virtual teams.

Third, as a consequence of our qualitative content analysis framework (Graneheim & Lundman, 2003) in the coding process, we were pointed towards three fundamental analytical levels – structuring, empowering and enacting – which drove us back to the literature to enfold further literature for strengthening both our own understanding as well as the arguments of the analysis. For grounding the three levels, we respectively chose Mintzberg (1995) for the structuring level, Andersen (2002) for the empowering level and Weick (1995, 2001) for the enacting level.

Fourth, when embarking into the thesis' discussion, our method led us to find three specific roles, which leaders of virtual teams could benefit from studying. To supplement the discussion, we brought in new literature relevant for each of the discovered roles, including Czarniawska (1997, 1998), Nymark (2000), Senge (1990), Goffe & Jones (2003), and Rollinson (2008).
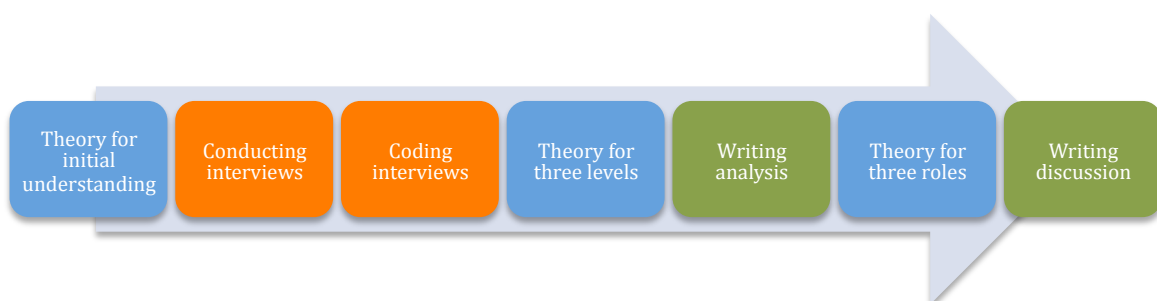
Model 3 - Iterative process of enfolding literature.

Criteria for selecting theory

When studying and using existing theory, we worked with a set of criteria to guide our search and secure a meaningful and coherent thesis.

First, the theory we chose to include in the chapters of this thesis has a relatively systemised and concept-oriented foundation and does not merely refer to best-case studies and give mainstream "strategic advise", which characterises much of management literature.

Second, when required by the context of the discussion, the theory should be of a relatively recent date so to assume and represent the society and the competitive conditions.

Third, the theory should to some extent understand the world along the lines of the social constructivist approach as it will result in a more challenging conversation between theory and empirical data when they are closer to our own epistemological presumptions. When choosing theories that represent fundamentally different world-views, one could mistakenly jump to critiques resulting from juxtaposed world-views.

Fourth, the theory should view the subject/employee as active and not passive receiver in consequence of the social constructivist world-view.

Channels for finding theory

The channels we used in the four steps of our selection of theory (described above) were the following: E-journals and databases supplied by our educational institution (Copenhagen Business School), book references, literature recommended in newspapers and magazines, searches on the Internet, recommendations from personal networks, curriculum from previous educational courses and advise supplied by the thesis counsellor.

Method for empirical data

Criteria for selecting cases

Before selecting the case companies best fit for answering our research question, we established a set of seven criteria points that could guide us in our search for interesting and rich empirical data.

First, the *organisational form* would have to be – to a great extent - virtual (definition?) and the virtual working environment should play an important role in how the members considered their workplace. Second, we consciously focused on *industries* with a higher technological maturity, as we expected to find more developed and sophisticated virtual teams in tech-minded industries as opposed to industries that do not work intimately with the Internet. Third, the *size* of our case companies should preferably span from miniscule organisations of 4 members to large corporations of more than 500 members to understand the dynamics, growth curves and formalisation trends of virtual teams. Fourth, in regard to the *location* of the main office, we were interested in interviewing leaders from different nations and consequently found our empirical data to be represented by three different countries. Fifth, the fact that the industries of our case companies were primarily software or Internet service companies also meant that the *markets* of our respondents were not limited to their local region; the leaders we interviewed were orientated towards worldwide markets. Sixth, a further requirement to our case companies was that they should be *successful*, meaning that the company in terms of revenue, profitability, reputation or interest from investors or press should have a positive track record. Seventh, the case company should display *openness and interest* from an early stage in participating in an interview, which would expectedly have a positive impact on the quality of our empirical data.

Channels for finding cases

Our search for case companies went through a number of channels: Previous knowledge of relevant companies, search on the Internet, tips from the supervisor, newspaper articles, book references, leads from our personal networks and references from informative interviews conducted early on.

Relevance of cases

In table (X) we have listed the six case companies and seven key informants, which resulted from our empirical data search.

Case	Key informant	Industry	HQ	Relevance
37signals	David Heinemeier Hansson (Partner)	Software	USA	A team of 15 people working virtually across USA and Europe. Main office in Chicago.
Joost	Henrik Werdelin (Chief Creative Officer)	Internet service	UK	A large organisation of more than 200 people cooperating virtually. Main office in London.
Polycom	Sten Dyrmose (CEO) Camilla Bottke (Marketing manager)	Technology solutions	USA/ DK	Large corporation working virtually and providing virtual environments for other companies. Main office in San Francisco.
Storyplanet	Bjarke Myrthu (CEO and founder)	Internet service	USA	Small team of 4 people in four different nations working virtually. Main office in New York.
Wildbit	Chris Nagele (CEO and founder)	Software	USA	A virtual team of 10 people with the leader in Philadelphia and the core developers in Eastern Europe.
Workstreamer	Ben Schippers (CEO and founder)	Software	USA	A team of 7 people started out virtually and are today spread out across the USA with the main office based in Brooklyn.

Table 1 - Case companies and key informants

Preparing qualitative interviews

We chose to make qualitative interviews, as we are interested in our interviewees' individual thoughts and their own conceptions of their lived world. This approach emphasises the constructive nature of the knowledge created through the interaction between us and the interviewees (Kvale, 1996:11). We yearned to understand the shared meaning articulated by our interviewees in connection with the subject of virtual leadership, which is the reason why the qualitative interview is preferable in this context.

As a supplement to qualitative interviews, observations of spoken and written communication taking place in the teams and organisations would have been preferable, as it would have enabled us to capture implicit perceptions, norms and values

(Boxenbaum, 2008b). However, we deemed that such empirical data gathering would be too demanding given the nature of our study. Also, we deselected conducting interviews with employees in virtual teams, because we wished to limit our discussion to the methods and approaches found beneficial by leaders.

In preparation for the seven interviews, we worked out a primary interview guide (appendix B), by firstly establishing research topics leading from our research question and subsequently translating these topics into everyday language in order to avoid guiding (or misguiding) the interviewees into any particular direction. The interview guide consisted of ten general themes each containing a number of questions, which were slightly customised to fit each interviewee's background and organisational profile.

Conducting qualitative interviews

Our seven case study interviews all lasted approximately 60 minutes each and were conducted in either Danish or English. As we picked international companies, most of the interviews were held virtually using the phone- and video-conferencing communication tool Skype, the only exception being Storyplanet's Bjarke Myrthu, who we interviewed face-to-face (appendix A).

 When performing the interviews, we made the conscious choice to exclude value-added research words like 'control' from the conversation, because such concepts are connected to individual connotations. If we had asked the interviewees to define 'control' we could be subjected to the interviewees referring to a theoretical term instead of their "own" version of the word. In our belief, practitioners do not operate with overall definitions of strategic concepts like 'leadership and 'organisations', but are rather concerned with how their practice unfolds.

When conducting a qualitative interview we, as researchers, are aware of the risk of the interviewees 'self-reporting' due to a desire of a positive self-image (Boxenbaum, 2008b). Furthermore, there is a risk of the interviewee leaving out information because they either feel that it is of no importance to us or that they cannot, or may not, answer

our question. The answers can be further distorted due to the interviewees' lack of self-awareness.

The interviews are semi-structured in order for us to leave room for probing when entering interesting subjects during the conversations. In our interview guides, we have therefore defined subjects with only a few questions each due to a wish of letting the situation steer the interview. We conducted the interviews together – with only one exception - in order for us to have one person engaging in the actual interview and one ensuring that we did not deviate too much from our main subject, picked up on interesting statements and completed our interview guide within the time frame.

Coding empirical data

In transcribing the interviews, we chose to stay close to the spoken words of the interviewees but at the same time write down meaningful sentences qualified for quotations, and avoid repetitions and words without meaning, such as "eh".

First coding. As previously declared, our intention is to build theory from case studies and therefore the within-case analytical coding is of particular importance. We took the advice from Eisenhardt (1989) and became intimately familiar with each case as a stand-alone entity. More specifically, we completed several readings, added notes and coined general themes for each of the cases.

Second coding. To move from the within-case analysis to a search for cross-case patterns, we began the process of our second coding (Appendix C+D). Cross case searching enables the researchers to go beyond initial impression while it improves the likelihood that theory will match the data more closely and that the findings will be more novel (Eisenhardt, 1989:360) This round of coding was inspired by the qualitative content analysis framework developed by Graneheim and Lundman (2003). Their systematic framework allows for the objective, systematic and qualtitative description of the manifest content of communication and for the interpretations of latent content. According to Graneheim and Lundman (2003), a text is analysed by firstly highlighting a citation (*meaning unit*), secondly by narrowing down its condensed meaning (*condensed*

meaning unit), thirdly by defining the code it belongs to, here understood as the underlying meaning of the "meaning unit" in relation to the unit of analysis (*sub theme and theme*). This method helped us structure and identify relevant actions taken by leaders and employees in virtual teams.

Our three analytical levels were coined from this step in the second coding process, as we recognised overarching meta themes in the grouping of the themes (which we renamed into actions). Specifically, from the 20+ themes we found throughout our empirical data, three distinct groups were coined, into which we allocated all actions. Subsequently, we removed the repetitive or less relevant actions, and thereby shaved down the number of actions in each group to 5 – in total 15 actions. We then labelled the groups as 'levels', also due to the fact that they could be perceived to hold different vertical levels in the analysis.

Method for analysis and discussion

Organisational analysis

As a guiding methodology for the analysis, we have leaned on organisational analysis, most vividly represented by Weick (Olsen, 2004:444), which treats organisations as collective action processes and as an unpredictable and yet recognisable team play. The analysis has its offspring in societal micro situations, in which participants create meaning and act in relation to each other (Olsen, 2004:443). Problematic issues are concerned with how participants and leaders organise and make results. The ambition is to develop trustworthy analyses of what people in organisations know and how they can develop and improve new actions.

> The analysis is about how people in organisations – leaders and directly
> affected – perceive their situations and create options for action by acting
> in relation to each other.   (Olsen, 2004:446)

The fundamental pillar of realisation is that action and knowledge "belong together". The interest is in how the influenced organisational participants create meaning in

relation to each other by deciding how situations and action patterns should be understood. Furthermore, the organisational process is understood historically as a process that needs to be described through many contexts and through the meaning added by the participants.

Inductive and abductive logic

As a consequence of our use of organisational analysis, we have used both an inductive and an abductive logic throughout our analytical steps, as is common among researchers of organisational analysis (Olsen, 2004:458).

Induction is the process of reasoning in which the premises of an argument are believed to support the conclusion, but do not entail it and do not ensure its truth. This form of reasoning makes generalisations based on individual instances more than given statements (Olsen, 2004:458). In this paper the individual instances are made up from the empirical data collected from the interviews and support material. Despite being inductive, we built our semi-structured interview-guide on pre-understandings of what we thought we would see in the field, meaning that general assumptions played a role for our approach to the field.

Abduction is a derivation of correlations, a building of reasons that are based on multiple different observations and is leading to a plausible explanation (Olsen, 2004:458). This reasoning process is not necessarily a logical construction excluding other ways of describing the situation; rather it is a construction that can be used to understand an event with the information one has available. In the process of writing this thesis, we were sensitive to what the field showed us and allowed a retroactive movement, where pre-understandings were re-questioned and new understandings of the field were developed during the analysis as will be elaborated on in the following.

Hermeneutic understanding

We have strived to unfold a hermeneutic understanding of the empirical data, where our interpretations of the conducted interviews rely on the interviewees' explanations of their realities. The objective has been to understand what the interviewees express

about their world and in that way reach a realisation about how they position themselves in the light of theoretical perspectives (Kvale, 2004:58-59).

We have interpreted the interviews as a whole and held the individual parts, the interview statements, up against this whole. As a consequence we have analysed the separate statements given by the interviewees about their explicated practices in relation to both their own additional statements and in relation to the entire body of statements received in our seven interviews.

As researchers of social science, our *parts* have been the single statements of the interviewees as well as information from additional material and our *totality* has been how we can perceive and respond to the focal point of the research question. The difference between our and the interviewees' situation in relation to the project is that they only know their own "interview reality", whereas we have insight into all the stated interview realities as well as a wide excerpt of theory related to the project. When interpreting the single parts, our conception of the whole has changed which also means something to how we see the single parts.

Our interpretation of the parts (the interview statements) has during the project changed our comprehensive view, our view on the theory, which again has played back on our conception of the single interview statements. This has made an analysis based on the idea of the hermeneutic circle possible.

According to the hermeneutics, the interpretation of the interviews are not without preconceptions, as it is impossible for us as interpreters to view beyond our own understandings of the world, which also lies in our social constructivist approach to the theory of science construed in the beginning of this chapter (Kvale, 2004:59). We have made an effort to be reflexive about our own prior understandings by staying open to inputs both of theoretical and practical kind that has challenged our views. As a consequence of this, our understandings of concepts have moved during the analysis process.

Normative conceptual stance

In our discussion, we aim at answering the research question by building a theoretical concept based on the analytical findings. Our approach in the discussion is to seek the

generalisations that hold the ability to represent the actions of the analysis. The exercise takes the form of an interpretation, where we try to detect the underlying mechanisms influencing how the leaders from our case companies carry out their practices. Furthermore, we take a more normative approach and our voice and opinion as scientists (as a result of the hermeneutic analysis) play a more outstanding role. In this approach we understand our role as researchers as influencing the field and co-creating meaning through interpretation. This, in the end, leads to the synthesis of the knowledge given from the empirical field, our interpretations thereof and the theory from the literature review to construct our own concept of virtual leadership.

Self-critique

In the following, we will present some final comments to our methodology concerning conditions, which we would have preferred different in relation to firstly theory and secondly empirical data.

Firstly, we choice to include many theorists in the introduction of the concepts and less reflections on the levels they operate on. The challenge has been to maintain focus on the analytical categories and not become too preoccupied with tracing the theoretical concepts in the analysis, which the reader could perceive more as an exercise of reproduction than an exercise of continuously expanding our understanding of leadership in virtual organisations through the various theoretical concepts. We are aware of the consequences this might have, but believe that the use of analytical categories has served as a useful centre that has allowed for a further understanding rather than a reproduction.

Secondly, our research question touches upon both the leader and the employee entangled in virtual organising. However, we have only interviewed selected leaders of our case companies and not the employees who actually execute the performance-requiring work and therefore are subject to having different attitudes towards and opinions about the optimisation of virtual leadership. Our choice not to interview employees and include them in our hermeneutical understanding means that our

empirical data is dominated by views of leaders. The reason for not interviewing employees was an early decision to form a discussion between people holding the same organisational positions rather than setting up a multidimensional discussion of people from different organisational levels.

Apart from interviewing employees at the operational level, we could theoretically have conducted observations. Through observations we would have been able to verify or falsify our empirical data. However, much of virtual organising takes place in-between space and time and is much more difficult to observe than what is the case with collocated teams.

CHAPTER 4

ANALYSIS

In this chapter, we will introduce the three main analytical levels: Structuring, empowering and enacting. The three levels comprise fifteen actions that help shape an environment, in which leaders can reduce their lack of control and to some degree secure performance of their teams despite being outside immediate proximity of their employees. In the first level, leaders seek to execute structuring actions to secure the performance of their employees. In the second level, we assess actions leading to the empowering of employees involved in virtual organising. In the third level, leaders are enacting autonomous teams to benefit the purpose of their teams.

   The three levels of virtual leadership each contain five actions observed from our empirical studies. Our research question is guiding the analysis: 'How can leaders secure performance when outside immediate proximity of their employees?'.

Presentation of empirical data

In the following paragraphs, we will present the six case companies – 37signals, Joost, Polycom, Storyplanet, Wildbit and Workstreamer – and provide a short biography on the informant we chose to represent each case company.

37signals

37signals is founded as a web design agency in 1999 by Jason Fried, Carlos Segura and Ernest Kim in the city of Chicago, USA. In 2003, Segura and Kim leave the company and a couple of years later Danish David Heinemeier Hansson joins and later becomes a partner in the firm. Hansson develops the open-source web application framework Ruby on Rails (also referred to as Rails) and through the application of this framework he and other developers at 37signals develop the web-based software applications that today comprise the successful products 37signals. Since 2005, the company has transitioned into a product company selling web-based software. In 2006 Jeff Bezos, the founder and CEO of Amazon.com, invests an undisclosed amount into 37signals and is today the only external investor.

37signals offers four main products: Basecamp for project management, Backpack for joint editing wiki pages, Highrise for contact management and Campfire for group chat. The products aim to make small groups work better and these groups could either be small companies or a departments in larger corporations. The customers of 37signals range from the lone entrepreneur to global brands spanning all markets and NGO's for instance Kellogg's, Adidas and WWF. Due to their products' relatively low prices ($12-$99 per month per application) and their ease of use, their potential market is global. The popularity of their products and success of the business are illustrated with the number of users of their main product Basecamp reaching 3,000,000 in 2009.

37signals consists of 14 employees including the two partners Fried and Hansson. Around half of them is situated around Chicago and the other half is scattered around the United States and one is based in Europe. The organisational structure is flat with no appointed project leaders. Usually a project has a span of 2-3 weeks for working on a specific feature or fixing a given problem. To communicate and collaborate 37signals use

their own products, instant messaging (iChat) and encrypted e-mail and do not use video or telephone.[1]

David Heinemeier Hansson graduated with a bachelor's degree from Copenhagen Business School in 2005 and then moved to Chicago to dedicate himself fully to growing the success of 37signals. Besides having created the acclaimed web-application framework Ruby on Rails, Hansson is a frequent speaker, blogger, IT pundit and author. These merits have made him an award-winning Internet personality.

Joost

Niklas Zennström and Janus Friis, the founders of Kazaa and Skype, established the Internet TV and video service Joost in 2006. Then in October of 2007, after programming and beta testing, Joost was made available to the public. Joost is a portal that provides professional and legal TV programs, music videos, films, etc. by partnering up with major international TV, music and media corporations, production companies, film studios and other content providers. The service was free, but advertisements are shown before, during and after programs. By the end of 2008, the desktop player was replaced by a Flash-based web player to allow for direct streaming of content from the user's browser.[2] On June 30th 2009 Joost announced that it would shift its business model altogether by focusing on developing white label online video platforms for media companies. This means that Joost discontinues working on the video portal and instead seeks to cater a market for companies wanting to distribute branded video themselves using Joost's technology. The details of the following downsizing and restructuring of Joost have not been disclosed, so the following data and information regarding Joost are what were available at the time of the interview with Chief Creative Officer Henrik Werdelin (May 12, 2009).[3]

As of May 2009, Joost was a multinational organisation with around 140 employees divided into 7 departments and mainly working out of three central offices in New York, London and Amsterdam, but also from other locations in the US, England and Continental Europe. The technical side of building and maintaining the website was done by using a vast

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[1] 37signals website (http://37signals.com), Wikipedia (http://en.wikipedia.org/wiki/37signals) and Wired (http://www.wired.com/techbiz/media/magazine/16-03/mf_signals?currentPage=2)
[2] Wikipedia (http://en.wikipedia.org/wiki/Joost) and Crunchbase (http://www.crunchbase.com/company/joost)
[3] Joost website (http://press.joost.com/2009/06/joost_to_provide_white_label_o.html and http://blog.joost.com/2009/06/a_note_about_todays_changes.html)

array of sophisticated programming and design software, but on the communicative side, the situation is more straightforward. E-mail is widely used as is ordinary telephone. All employees use Google Apps to plan and share documents, while Skype chat is available for every group working together. A chat function called "Water Cooler" makes it possible for all employees to communicate informally. The management team equally divided between London and New York occasionally use video conferencing rooms for their internal communication and these rooms are also used for the company-wide video meetings taking place every two weeks, where the CEO provides an overview of the different departmental statuses. Employees call in and following the general overview they have a chance to comment or ask questions. Furthermore, a weekly newsletter conveys the management team member's own assessments of their departments' state of affairs. E-mail groups for the different departments ensure that necessary communication available not only to a particular department, but to all employees. Thus, it is possible for everyone to determine the developments of each department.

At the time of collecting empirical data, *Henrik Werdelin* was the Chief Creative Officer of Joost. Werdelin has had extensive experience in media; previously he was Vice President for Strategy & Product Development at MTV Networks International and he has held positions within radio, tv, games and technology. Besides this, his experience also covers roles as investor in small companies, board member duties in IT companies and consultancy work. In his positions for MTV Networks, Joost and in his daily use of technology he has accumulated strong competences in working virtually. In Joost Henrik Werdelin's role was to think of and conceptualise features for the main product, the Joost portal, and make sure this was implemented. This involved working with programmers, designers and other employees distributed across the sites, which made these processes entirely virtual. Besides being part of the management team his responsibilities also entailed travelling to the different sites to make sure the vision for the product was understood by the whole organisation and also to represent the company externally.

Polycom

Polycom was founded in 1990 and has grown to a multinational telecommunications corporation with 2,600 employees and a revenue of USD 1.1 billion (2008). Polycom delivers communication and collaboration solutions for companies with geographically

distributed workforces. This entails producing and selling a wide variety of hardware and software that enables tele-presence, teleconferencing and videoconferencing. The product portfolio is divided into two main business areas; Voice, which is desktop, IP, video and portable phones; and video, which encompasses small-scale video conferencing hardware and large tele-presence solutions. The company operates with a three-dimensional matrix organisation meaning that many employees have a superior both locally in their physical work place and functionally elsewhere in the organisation. The many acquisitions made by Polycom have contributed to the internationalization of the company and subsequently its requirement to perform virtually. Not surprisingly, the employees we interviewed use the company's own products plus Instant Messaging (Microsoft Communicator), e-mail and CRM-systems.[4]

Sten Dyrmose is an engineer with an E-MBA in Change Management and has previously held management positions in Vestas, Bang & Olufsen and, most recently, as CEO in Valor – a Danish IT company. He became CEO of Polycom Denmark in august of 2007, when Polycom acquired the owner of the Danish telecommunications firm KIRK Telecom. Besides being CEO, he is also part of the Executive Team for Voice in the company headquarters based in San Francisco, USA.

Camilla Bottke has a master's degree in Market Economics from Århus Business School. Following her graduation in 1999, she worked for TDC Business Nordic from locations such as Copenhagen, Århus and Brussels without ever being collocated same place as her superior. She became Senior Product Marketing Manager when joining Polycom in 2008 and here both her direct superior and her subordinate are situated in different geographical locations.

Storyplanet

Storyplanet is an Internet start-up founded in 2008 by Danish journalist Bjarke Myrthu. The company is centred around its core product – an online platform where people with a serious interest in photography, video and audio can share content and create interactive

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[4] Wikipedia (http://en.wikipedia.org/wiki/Polycom) and Polycom (http://www.polycom.eu/company/about_us/corporate.html)

audiovisual stories and publish them to a website of their choice. Through his network Myrthu got into contact with Joichi Ito, the CEO of Creative Commons and investor in dozens of well-known Internet start-ups, who then decided to invest in Storyplanet. Ito brought in Peter Barr-Watson, a Senior Business Development Manager previously at Microsoft, who became the CTO, and Myrthu hired former colleague, the designer Jakob Kahlen, as the Creative Director. While Myrthu work out of New York, Kahlen works from Copenhagen (contemplateting move to New Tork), Ito is based in Tokyo and Barr-Watson lives in Brighton. Additionally, three freelance programmers assist in the development; two from the UK and one from New York. While the product of Storyplanet, which is still not quite operational and is still being beta-tested, will be aimed at freelancers, professionals and larger corporations with a serious interest in telling stories with their photos or videos. When fully operational, usage of the service will be charged, though no other details have been agreed disclosed.[5]

The organisation is using a wide variety of tools to collaborate and communicate. Skype is mainly used for chat conversations and occasionally also for video conferencing. Besides e-mail, online tools are used to share documents and files (Google Dox and Dropbox), while project management tools (Action Method) are used for collaboration.

Bjarke Myrthu is founder and CEO of Storyplanet. He has a BA in Journalism from 2000 and has been journalist at the Danish newspaper Børsen and Director of Communications at CARE Denmark before hired by one of the world's leading photo agencies, Magnum Photos, in 2004. There he became responsible for developing digital content and creating new business models. During his tenure, he co-founded the online publication Magnum In Motion.

Wildbit

In 1999, Chris Nagele founded the software company Wildbit and over the years he grew the company to its current size of 11 employees by hiring designers and programmers from all over the world. Today, Wildbit has two software products and besides maintaining and

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[5] Storyplanet website (http://www.storyplanet.com/)

developing these, they do service-based client work. The main business area is made up of the two products Beanstalk and Newsberry. Beanstalk is a tool for designers and programmers to store and track changes on their source code, while collaborating with their dispersed team. Newsberry is an e-mail marketing tool that lets people send and track newsletters. Wildbit's virtual organisation is distributed worldwide with employees in Russia, Ukraine, Bulgaria, Serbia, Germany and the US.[6]

For communication and collaboration, the organisation uses Beanstalk, a group-based chat (Campfire) and collaboration software (Basecamp). The group-based chat is used for mandatory team meetings held every morning, where every employee reports in, and also for general discussions of short-term goals and product ideas. Video- and tele-conferencing are rarely being utilized for discussions though there is a desire to increase the use of such tools to make room for more spontaneous discussions. One-to-one communication is based on Instant Messaging, but to hinder distractions the usage is limited. Google Calender is applied for organisational planning and for e-mails Google Apps is the standard.

Chris Nagele is the sole owner and CEO of Wildbit. He holds a degree in Computer Science from the University of Colorado. As the only manager in the company, his responsibilities include the future direction of products, providing the needed resources for the employees, and planning the yearly retreats where the whole team flies together for a meet-up.

Workstreamer

Workstreamer is an Internet start-up founded in 2008 by Sam Huleatt and Ben Schippers. Receiving its first round of financing of about USD 500,000 in the beginning of 2009, Workstreamer now employs 6 people in total, including the founders, who share the role of CEO. The organisational setup is a distributed work team scattered across the United States with the CEO's working out of New York, the CTO and a programmer located in Washington D.C, and two additional programmers based in Houston and Dallas. Workstreamer is a software company in the process of developing their product – an online application that will combine social media, streaming information and professional networking.[7] When made public it will help businesses and groups manage and improve their workflows. The

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[6] Wildbit website (http://wildbit.com/)
[7] Crunchbase (http://www.crunchbase.com/company/workstreamr)

final product will be aimed at professional services and managers of Fortune 500 and Fortune 1000 business. A pricing strategy has not yet been devised.

Huleatt and Schippers share the leadership along with their CTO. Huleatt is responsible for business development and marketing, Schippers drives product development and operations with the CTO dealing with technical issues. For collaboration, the Workstreamer software is primarily used, while Skype is used for chat and conversations. Phones and e-mail are used only rarely.

Benjamin Schippers is the representative for Workstreamer. He has a BA in History and Education and went from college to becoming a Technical Software Specialist. In 2005, he and Huleatt started a small consulting company working on small projects involving distributed work teams. From these experiences came the idea of starting up Workstreamer.

Structuring level of virtual leadership

The main objective of the structuring
level of virtual leadership is to set up
boundaries, which can help to minimize
uncertainty for everyone involved in the
organisational process. In the following
paragraphs, we will deal with five
different structuring actions observed in
our empirical data and identified as
guiding principles for virtual leadership.
Firstly, *leaders structure organisations by*
defining overall goals and responsibilities.
Secondly, leaders provide employees with
extrinsic incentives. Thirdly, leaders evaluate
deliverables rather than processes. Fourthly, leaders formalise procedures during
growth. Fifthly, leaders place themselves in close proximity to production.

Model 4 - Structuring level of virtual leadership

Action one: Leaders define overall goals and responsibilities

The first action concerns how leaders structure their organisations by defining the
overall goals and directions while pointing out areas of responsibility.

At Polycom, coordination is carried out weekly based on one-on-one meetings
between the leader and the subordinate and directed by quarterly goals. Bottke, who is
both exposed to virtual leadership and is executing virtual leadership (CB, 1), sums up
the key ingredient for leading virtually as "*setting up a plan for the concrete task you are*
responsible for and for how you are planning to solve it" (CB, 2). This quote indicates that
leaders define the broader responsibility areas, but employees use mutual adjustment
(Mintzberg, 1995) in figuring out how to plan for individual tasks' successful solution.
No direct orders are given but leaders have directly influenced the goal which
employees orient themselves toward.

Myrthu of Storyplanet is less involved in the processes and sees himself more as a

visionary leader: "*I can make the idea concrete, set the boundaries and inspire the people around me to do it, but I prefer leading people who have a high level of self-drive*" (BM, 7). The structuring leadership in this case study is grounded in a more abstract, creative and loosely defined ideology intended to inspire and motivate self-driven employees. Tasks and their specific content of these are to a large extent something the employees must work on themselves based on the overall direction provided by the leader. It is required of them that they have a hands-on and highly independent approach to their own work. Myrthu adds that the "*leader should figure out 'where is it most important for us to be?' and 'how should we be there?'. 'How should the strategy be?' and 'who do we need to execute it?'*" (BM, 13). These quotes also point to the dual coordinating mechanisms leaders employ. Revisiting Mintzberg (1995) coordination is not achieved by either direct supervision or mutual adjustment, rather it is a combination where, firstly, leaders are very direct in forming entities like goals, responsibility areas, milestones etc. that instructs employees in their behaviour and, secondly, employees exchange information with each other to adjust to these instructive entities.

For Hansson at 37Signals it is of vital importance to divide large projects into small parts in order to make them achievable for a small number of employees. The aim is to organise teams solely by short-term planning, which is further elaborated by Hansson: "*We have plans for what we will be doing next week and maybe the week after that and then we may have some ideas for what we could be doing at a given time, but we only take things one or two weeks at a time and have a general aversion against planning as a concept*" (DH, 10). In other words, forget all about lofty quarterly and yearly goals; the performance expected of the team has its momentum within the next foreseeable 1-2 weeks, which increases the employees' level of motivation and the management's ability to control that responsibility areas are efficiently distributed. This approach also indicates that coordination is a matter of combination for leaders. They define the limits of the projects that need to be undertaken, assign small teams to each section of it and let the team members communicate about how to reach their goal. The close communication taking place between members of the team within the short sprints is in fact a mutual adjustment to the larger framework of the given project.

As we are assessing leadership in a virtual context, the role of technology in connection to the leader's structuring actions deserves some attention. Across our case studies we found usage of both synchronous (audio and video conference, screen sharing, IM) and asynchronous (e-mail, electronic bulletin boards, tools for structuring conversation, joint editing) information and communication tools.

Of the synchronous communication tools frequently used we noted instant messaging across all case studies and video-conferencing (particularly in 37Signals, Joost, Polycom, Wildbit). The main difference between these two is that instant messaging works as a live, ongoing thread throughout the day, via which constant formal coordination and informal chat is exchanged. On the other hand, video-conferencing is a scheduled virtual meeting including two or more participants meant for coordinating or deciding on a greater purpose. According to Myrthu, "*video-conferencing is great when you set goals, because … there is a lot of interaction and communication and agreements or disagreements that you have to go through and the video-conferencing or even just audio is a very effective tool for that*" (BM, 7). Rather than discussing in long e-mail threads, video-conferencing simulates a live meeting, in which discussions are solved quicker and components such as body language, facial expressions and tone of voice are brought into play.

Asynchronous communication tools included newsletters, project management tool, calendar sharing, file sharing, contact sharing and e-mailing. Due to time zone differences experienced across all case studies, these tools carry significant value in making all information available at any given time and retrievable from any given place, thereby assisting leaders of virtual organisations in overcoming the present geographical dispersion.

Throughout this first action, we have seen how leaders structure their organisations by defining overall goals and responsibility areas. Notably the combination of establishing larger constructs, which could be instructive of employees' behaviour, and employees adjusting by communicating with each other characterised leadership approaches.

Action two: Leaders provide employees with extrinsic incentives

Our quest to uncover how leaders secure performance when they are situated outside immediate proximity of their employees brings us to the second action concerned with the establishment and adjustment of extrinsic incentives. In a virtual context, in which loss of control is a central precondition for the coordination done by the leader, the provision of incentives for employees engaged in the organisational circuit becomes interesting. How much should be granted the employee? To what extent should the leaders reward employees for living up to agreed responsibility areas and essentially doing their job? Do leaders need to compensate for not being in immediate proximity of their employees? In the following we will investigate employment contracts, wages, ownership structures and other means of incentives laid out for employees in virtual organisations.

Due to operations taking place in several countries – often times with only one employee in each country – it is common for smaller virtual organisations to employ people on full-time contracts, which means that employees in essence are individual subcontractors of the company, sending invoices every month and independently ensuring they have the insurance they need. Nagele of Wildbit is based in Philadelphia and has worked in this manner with his team of Eastern European developers for the last 9 years and intends to continue with this – mainly to stay flexible. For Storyplanet this setup is a temporary start-up solution intended to be replaced by the establishment of local subsidiaries, to which local employees can be contracted. Workstreamer, on the contrary, has all its full-time contractors based around the United States, while Schippers has chosen the contractual setup for convenience reasons.

 Wage is emphasised by Schippers of Workstreamer as a pivotal instrument for directing his employees: "*My life has been easier since I'm able to pay people*" (BS, 4). The software entrepreneur adds that he does not have great belief in start-ups exchanging secure monthly cash payments with stock option plans and hardly realistic promises for future earnings: "*I have seen a lot better work done for a competitive salary*" (BS, 3), as he states when explaining why the two founders are especially focused on making additional finance rounds.

 However, in order to tie in employees to a long-term relationship, Schippers reveals

that Workstreamer will be offering an option pool for the current contractors after the next round of financing (BS, 3). Similarly, Storyplanet has enabled a setup that correlates number of shares with the seniority of each employee, also referred to as an earn-in arrangement. In Joost, all employees get options when they are hired regardless of being an assistant or key management personnel. What we see here is that extrinsic incentives are common means of motivating employees; this has to do with the relatively young age of the companies we are assessing, the software industry they are operating within and the virtual way they are organised.

Nagele, as the founder and sole owner of Wildbit, has deselected any way of distributing minority shares among his employees. Instead, the company does a lot of revenue sharing and bonuses, but these rewards are completely dissociated from the legal structure of the company. With consideration and care, the bonus system is utilised by the leader of Wildbit to orchestrate responsibility and accountability across the team members (CN, 3).

The two partners of 37signals have also chosen to limit ownership to their own duo, and hire employees on normal terms with wage and vacation. Their variant of extrinsic incentives is an interesting one; the company's management does not count holidays, people take the vacation they feel is fair. As simple as that. In addition, each and every member of the company has a credit card without expense reports. Such components – variable holidays and credit cards without report demands – are expressions of freedom with responsibility. All employees are on equally free terms, they feel trusted by their leaders and can focus on what is important. "*This degree of trust removes the focus on "how much do I earn now?", but rather people focus on the present work and make sure it's interesting*" (DH, 4), as Hansson explains the freedom-based incentive mechanisms of 37signals.

The above strategies show that leaders use various extrinsic incentives to motivate employees. Though leaders do not directly tie rewards to measurable performance outputs in all cases they are nevertheless tied to certain behaviours. By providing extrinsic incentives as a fundamental right with no direct demands attached employees have to make sure they continuously perform well to deserve the rights they are given. Directly or indirectly, leaders make sure the employees' incentives are aligned with their interests. This both confirms and challenges the concept of motivational measurement (Austin, 1996), as motivation not merely is tied to actual measurement.

With the second action we have seen how leaders provide employees with extrinsic incentives in the shape of competitive salaries, revenue sharing, stock options and more unusual goods such as credit cards without expense reports and vacation without limits.

Action three: Leaders evaluate deliverables rather than the process

The third action focuses on how – as a consequence of the reduced control for the management – attention shifts from the *process* of how work is attended to the *deliverables* of what the employees contribute with to the company.

   In the first place, it is necessary to show that the leaders of our case studies acknowledge the hypothesis that virtual settings in fact lead to less control for the management. In the eyes of Nagele, "*people going into the virtual organization, I think they still have the idea that they will have a sense of control over the environment. But they won't*" (CN, 10). The sooner they realise this diminished ability to quickly react to every possible change, the faster leaders can start replacing their loss. For the daily work in Wildbit, the absence of a constant feedback loop and direct attention means it takes longer to establish whether a newly hired person is working or not (CN, 2).

   Despite Polycom being a much larger and more complex organisation than Wildbit, Dyrmose and Bottke confirm Nagele's assertions. According to Dyrmose, one must realise that "*A hierarchical system you can completely forget about. But a network – and all the things inherent in being a network leader – such as conduct – and not having ultimate power as a leader – that is the mindset to use*" (SD, 4).

   Bottke supplements with a subordinate's perspective: "*As an employee it has always suited me well. I don't have the need for having someone controlling me. I don't have the need for a boss sitting right next to me*" (CB, 2). To her, working in virtual teams means more freedom in her daily work, more space to unfold her potential and greater responsibility to actually carry out the work.

> "
> *A hierarchical system you can completely forget about. But a network – and all the things inherent in being a network leader – such as conduct – and not having ultimate power as a leader – that is the mindset to use.*
>
> Sten Dyrmose

This leads us to the shift of focus in the evaluation of employees. The loss of the ability to directly monitor the actual work processes has led virtual leaders to focus concisely on the delivered and tangible results of the employees' efforts. Hansson is immensely occupied with building a process to measure the output of his employees. The 37signals partner remarks: "*If you can't measure the output of the work being done, I think you have a deeper problem regarding organisation*" (DH, 3). For Hansson, monitoring the process has no value anyway; during the course of their short sprints each team member are allowed to set up camp in any thinkable location, as long as the work that comes out in the end meets the communicated expectations and passes the management's or team's evaluation. Interestingly, the team members have as much freedom within the boundary timeframes as they can imagine, *as long as* they pass the control criteria of their deliverables.

Tayloristic control of the factory worker's potential to optimise working processes has been abolished and rests fully on *what* the knowledge worker is capable of delivering. How the worker accomplishes the task is beyond the reach of the leadership and in consequence not awarded constant leadership attention. What matters in the virtual organisation is the quality of the precise work output.

The inability to directly control as a consequence of not being able to monitor work processes forces leaders to focus on the information level where products and outputs are tangible. The output starts a cycle where leaders by implementing or distributing it can determine its quality and hereby ascertain a standard for this type of output. With this information the leaders create a procedure or system for how future deliverables should appear which is communicated to employees. In relation to Mintzberg's (2001) managerial roles, leaders are unable to perform on the action level, but are displaying a controlling role on the information level in their focus on deliverables.

This third action has confirmed the lack of control over the actual working process and has highlighted how leaders instead evaluate production output. How workflow is most optimally orchestrated is up to the person engaged in the work.

Action four: Leaders formalise procedures during growth

> As an organization gets older, it learns more and more about coping with its environment and with its internal problems of communication and coordination. At least this is the normal pattern, and the normal organization tries to perpetuate the fruits of its learning by formalizing them.
>
> (Starbuck, 1983:480)

Turning to the empirical data, we find that stories of unstructured beginnings evolving into environments centred on optimising communication and workflows. In the first six months of Hansson's collaboration with 37signals, everything was being exchanged exclusively via e-mail and IM: "*I spoke at no point to* [Jason Fried] *on the phone and I had not been* [Chicago] *at any time, so we really started out with full virtualisation in this partnership*" (DH, 1). Hansson's gradual steps of becoming a partner in the virtual team is a great example of how changes have a tendency of evolving as emergent mechanisms rather than inherent phases in a detailed strategy paper.

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> *It's a lot of trial and error. Traditional management – even in software – that helps, but there is so much you have to do wrong in order to do right.*
>
> Chris Nagele

Nagele built the virtual team of Wildbit over time and today rejects the idea of having virtualised the organisation as a coherent and conscious strategy: "*It's a lot of trial and error. Traditional management – even in software – that helps, but there is so much you have to do wrong in order to do right.*" (CN, 1). Virtual teams is a relatively new field within organisational theory and with limited knowledge in a field, practitioners are required to learn by doing. The ongoing process of formalising specific standards in Wildbit will be closely knit with how the company works with its clients. Nagele determines that "*you have to set certain guidelines for the clients you want to work with*" (CN, 9) and in effect demonstrates that criteria established internally are posed as corresponding external criteria.

Storyplanet's Myrthu explains that "*right now I have things inside my head, the others have things inside their heads and we are rather agreeing*"(BM, 9) and this loose organisation has gained them wide recognition and provided them a solid base, from which to grow. Despite a conscious effort to maintain the current philosophy and

principles, Myrthu realises that the coordination processes will become much more formalised, as the organisation continues to grow.

Not having an office, not wanting overhead and not wanting an extraordinary number of people on payroll. Those were Schippers motivations for starting out virtually (BS, 1) and he explains that "*as you begin to get really big it becomes more difficult to be distributed*" (BS, 9). Among the reasons of decreasing the degree of virtuality are: Larger work teams, standardization of procedures, collaboration with larger firms externally and living up to government regulations. In this sense, it appears that increased formalisation is exponentially linked to increased virtuality.

Joost is an example of a company that started out fully virtualised in order to capitalise on qualified work force wherever it was situated and then slowly grew into "*a classical Ford-inspired assembly line in the way we do things*" (HW, 2). In Werdelin's view, virtualisation cannot be applied to all organisations with equal success: "*Virtualisation works well for companies that either did it from the beginning or for companies that can be split into a number of smaller products or features*" (HW, 3). In short, organisations have to be well accustomed to this special way of collaborating or otherwise decentralise units for the virtual purpose.

It is evident that leaders acknowledge that the situational factors age and size (Mintzberg, 1995) increases the formalisation of their teams. The smaller teams have not yet developed an elaborate hierarchy or added middle managers or purely administrative personnel. But a larger and older organisation like Joost have formalised behaviour and procedures (e.g. the Ford-inspired assembly line example). A larger organisation adds costs to purely administrative and coordinative positions and together with routine behaviour it runs the risk of losing flexibility and competitiveness in a complex and dynamic environment.

In the fourth action, we have told the stories about how many virtual teams emerge as start-up's with little formalisation – for cost or efficiency reasons – and then have a tendency to become more formalised in order to keep a clear management overview and maintain a level of control.

Action five: Leaders place themselves in close proximity to production

The fifth action to be included here is constituted by yet another observed pattern, which helps to reduce the loss of control experienced by managers in virtual settings. Namely, that leaders tend to pay extraordinary attention to what the company is offering – whether it is a service or a product.

Within the boundaries of Workstreamer, Schippers (BS, 5) is constantly on top of product development, guiding his troops toward his latest product vision, is involved with implementation of new features and sends out status updates about his latest product ideas to lift the motivation for the rest of team. To Schippers, the product largely outweighs organisational concerns such as HR, process design, finance tasks, etc. As long as the product maintains a positive growth and learning curve, administration-related responsibility areas will be degraded to less attention.

When asked to describe his most important responsibility as a leader of Wildbit, Nagele (CN, 4) points to the positioning of the product as well as supplying his employees with what they need. Positioning entails asking the question 'where are we taking the product?' and exchanging feedback with the entire team. Questions regarding product features, user interface, new markets or technological trends may be discussed in an equal forum and Nagele uses the input to navigate the general product direction.

The partners of 37signals are very conscious about keeping all team members involved with the product development – also in the future: "*For us it works well, that I am still doing programming, Jason is still doing design, we are still involved in the actual work, not just in the organisation of the work or the management of the work*" (DH, 5). Hansson is also well-aware that this continuation of a team all working on a common task has organisational benefits: *"To a large extent I believe this is beneficial to make sure you have this flat organisational structure. In this way, the arguments rule the discussions*" (DH, 5). This points back to the absence of ultimate authoritative power for the leaders. The rules of democracy are in play, every team member has a say and as the leaders stay close to the product development, they will harvest more inputs from the team members. Hansson further accounts for his

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> *When your actual work is organising, then you have a built-in feedback loop, which means that the more people you can organise, the bigger you are... this is a negative feedback loop*
>
> David Heinemeier Hansson

scepticism against full-time managers: "*When your actual work is organising, then you have a built-in feedback loop, which means that the more people you can organise, the bigger you are... this is a negative feedback loop*". In essence, Hansson believes full-time managers, who inevitably are disjointed from the product development, have self-serving interests in hiring more people to grow their own plateaus. This is negative, because the manager will wind up adding fixed costs to an organisation that may not be in need of additional personnel.

Taking the previous action into account there appears an emergent model of evolution in the configurations of our case companies. Small and relatively young teams like 37signals, Wildbit and Workstreamer bear similarities to the entrepreneurial organisation (Mintzberg, 1995) since they have only a few top managers a group of operators doing the basic work and a flexible organisation, no elaborate planning or formalisation. The older and larger organisations like Joost and Polycom are more akin to the innovative organisation as they organise via project teams across matrix structures to innovate. Both configurations enable leaders to stay in close proximity to production since leaders in both cases can be involved in producing work personally.

A firm product-orientation is comprehensible as long as the organisation maintains a certain size, but with continual growth, administration grows, and the leader must choose between overall overview and close proximity to production. Among the giants of Silicon Valley, the founders of Google, Larry Page and Sergey Brin, brought in Eric Schmidt as Chairman and CEO in order to continue their own strong involvement with strengthening the product portfolio.[8]

The fifth action has pointed to the clear trend of leaders place themselves extraordinarily close to production and pay extra attention to the following positioning of the product. Close proximity to the product may compensate for spatial distance to the employees.

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[8] Google's website (http://www.google.com/corporate/execs.html).

Summary of structuring level of virtual leadership

The analysis of the structuring level of virtual leadership has shown the relationship between leaders and employees and particularly how the leadership challenges in virtual teams can be solved.

The definition of tasks and responsibilities sets up important expectations within the organisation, which all group members need to live up to (action one). If one fails to live up to these team requirements, the sanctions may be that one fails to qualify for the extrinsic incentives enabled by the leaders (action two). Such incentives are primarily based on the evaluation made of deliverables, which intensifies the structuring frame management approach (action three). As virtual organisations grow larger, formalisation of processes compensate for the otherwise increased lack of control (action four). Finally, close proximity to core products and competencies enables the leaders of virtual organisations to secure performance otherwise troubled by increased distance to their co-workers.

In relation to the research question, this structuring level has a significant importance in awarding leaders overview of the organisation, a sense of control, ability to direct the work and orchestration of the organisational future.

LEVEL	ACTIONS	DESCRIPTION
Structuring *Leaders carry out structuring actions to decrease uncertainty and the lack of control and thereby secure performance*	1. Leaders structure organisations by defining overall goals and responsibilities	Leaders structure organisation by defining overall goals and responsibilities through standardizing process and output, planning time and providing an overall direction.
	2. Leaders provide employees with extrinsic incentives	Leaders award employees incentives such as shares, bonuses and extraordinary advantages to maintain strong ties to the organisation and improve performance.
	3. Leaders evaluate deliverables rather than processes	Leaders are limited to evaluate what is accessible and therefore focus on deliverables over processes, which the employee must seek to refine.
	4. Leaders formalise procedures during growth	Leaders take steps to implement procedures to accommodate growing amount of challenges in the organisation.
	5. Leaders place themselves in close proximity to production	Leaders of virtual organisations are placed extraordinarily close to production and are paying extra attention to the following positioning of the product.

Table 2 – Summary of structuring level of virtual leadership

Empowering level of virtual leadership

With the empowering level of virtual leadership, the main objective is to investigate the methods leaders use to empower employees and in this way secure performance. In our empirical data, five different empowering actions are observed and how they pertain to virtual leadership will be studied in the following paragraphs. The five actions are: Action six: leaders *create positive environments*. Action seven: *leaders select enjoyable projects attention*. Action eight: *Employees organise themselves*

Model 5 - Empowering level of virtual leadership

independently. Action nine: Emp*loyees drive work processes with self-motivation*. Action ten: *Employees balance demands for flexible working hours with demands of social life*.

Action six: Leaders create positive environments

In the sixth action we will uncover how virtual leaders try to impact the culture or environment of their organisations and in the end the performance of their employees by conducting positive communication, keeping an open mind towards all opinions and expressing an interest in employees' personalities.

At Storyplanet, it is Myrthu's role to travel and attend meetings with potential investors, customers and partners, and he is meticulous about sharing the inputs he gathers with the rest of the organisation. He elaborates on the effects of this positive communication, saying that *"a very large part of my role is to keep the ball rolling and be a motivator. (…) That way (…) enthusiasm is upheld"* (BM, 8). Motivation and enthusiasm comes through Myrthu's ability to not only convey the messages and results of his inputs but to create excitement while doing so by using techniques of storytelling. This approach is much in line with Myrtu's style of visionary leadership as seen previously, but is also directly

linked to a attitude he believes both leaders and employees should have when approaching the organisation: *"You have to create a good atmosphere and a good culture in the work place"* (BM, 10). This part of the action relates to the theory of influencing organisational culture (Picot et al., 2008) as it confirms a leadership attitude that seeks to spread positive communication.

The proliferation of positive communication among members of the organisation is also a norm Bottke has adopted, as she remarks: *"I have become better at telling the good stories"* (CB, 6). If communication is only centred around problems it will generate a negative view of the person sending the message so for Bottke it is necessary to strike a balance between sharing positive stories and openly communicating difficulties. Whether communicating is done with her subordinate or her superior makes no difference, since Bottke sees it as a general norm for every employee to be *"able to share all perspectives and set demands to one's boss"* (CB, 6). This openness is a way for leaders to empower employees. An empowered employee will use the possibilities of an open environment to set demands to his or her superior and will feel affirmed in doing so, thus participating in keeping communication open and honest.

A similar attitude is present in 37signals where Hansson points out that all work-related issues are kept as open as possible and involvement of the employees are seen as beneficial (DH, 5). Employees are expected to voice their opinions and leaders should embrace these.

In Workstreamer the employees are also seen as bearers of valuable input, but Schippers emphasises that opinions have to be qualified in the sense that they have to be based on knowledge of particular advantage to the organisation, which the leaders are not already aware of. The openness of Workstreamer is furthermore illustrated by overall decision-making being, *"fairly democratic"*, according to Schippers (BS, 5). In conjunction with the theory of influencing organisational culture (Picot et al., 2008), leaders in the case studies use communication, openness, recognition, and cooperation. Leaders communicate and cooperate adeptly while keeping the environment open thus recognising the employees and their inputs as valuable.

In creating a positive environment, leaders also seek to establish a casual relationship with employees by showing interest in their personalities and in their views and thoughts about non-work related issues. When collocated with employees, leaders have the possibility of both direct and spontaneous contact with them by bumping into the person in the hallway, cantina, parking lot, etc. These occurring situations are not naturally present when working virtually, which forces leaders to be highly aware of their special importance and compensate by other means.

Nagele explain why this is pivotal for leaders of virtual organisations: *"you lose a lot of the structure you have in a traditional environment, so you have to pay very careful attention to the goals and aspirations of each person."* (CN, 4). In Wildbit, Nagele compensates for the loss of direct contact by the use of group instant messaging systems where the whole organisation can – and is allowed to – participate with non-work related topics: *"We learn about each others' personalities through things like IM, Campfire and infrequent Skype conversations, so even though we are not face-to-face, you can still build a personal relationship with somebody and learn more about who they are and what they are interested in"* (CN, 8). Having a work environment with strict focus on formal tasks would not be satisfactory to the employees and himself, as Nagele explains: *"We still need to create an environment where we learn about each other personally and where we have fun"* (CN, 5). A sincere interest in the personalities of others and making this interest a foundation for future collaboration and communication is of importance to both leaders and employees. In her elaboration of how openness and positive stories played a large part in creating a positive environment, Bottke has similar beliefs: *"It is also about having a personal relation to the person who is one's virtual co-worker or leader. So you both feel*

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> *It is also about having a personal relation to the person who is one's virtual co-worker or leader. So you both feel secure with that person and are willing to say what comes to mind.*
>
> Camilla Bottke

secure with that person and are willing to say what comes to mind" (CB, 3). An interest in others beyond work-related issues, provides the foundation for personal relations and in turn this ensures a feeling of security. In accordance with the theory of influencing organisational culture (Picot et al., 2008), leaders of the case companies recognize their employees as complete and valuable individuals by taking an interest in their personalities.

The sixth action has shown that leaders influence the environment of their organisations by spreading positive and enthusiastic stories while ensuring that communication is kept as open as possible. Employees were recognised by the openness and by leaders taking an interest in their opinions and personalities.

Action seven: Leaders select enjoyable projects

Leaders in our case studies have difficulties in monitoring and interfering directly in processes while they are occurring. Instead, they focus on adjusting the settings in the phases before projects are initiated when trying to secure performance of their employees. The seventh action is concerned with steps leaders take to ensure that employees are enjoying themselves in the projects undertaken by the organisation.

In order to make work situations enjoyable the leaders in the case studies try to impact both the characteristics of projects and the attitudes of employees. This begins with hiring people who accept the vision of the organisation or clearly show a commitment to the particular products or services offered by the organisation.

   In Workstreamer, the initial task of the leaders when hiring new personnel is to share their vision of the product's future possibilities: *"… when we bring someone on we get them very, very excited about the grand vision of Workstreamer"* (BS, 3). The employees of Storyplanet have to posses a similar feeling of excitement or dedication, or as Myrthu clearly points out: *"It has been important for me to find people who also share the interest* [in photography and video]*"* (BS, 2). Intrinsic motivation is most easily secured if leaders find employees who are already engaged in the organisation's products or by fostering this by utilising vision-oriented techniques.

Remembering that leaders use extrinsic incentives to spur motivation (Action two), it becomes interesting as to how they use intrinsically based incentives in order to make projects more enjoyable.

   Besides providing the employees with extrinsic incentives, the leaders of 37signals are careful to select tasks that are guaranteed to fall in the interest of their employees, as Hansson explains: *"We do this by making sure that we do not work on things that bore us"* (DH, 4).

In Wildbit, declining tiresome projects is a general rule for Nagele; *"… we do not accept client projects that I know our designers and developers are not going to enjoy"* (CN, 4). Showing great attention to the needs of employees is in line with his views on leadership: *"… as a manager it is not your responsibility to tell them what to do and how to do it, it is your responsibility to remove obstacles and to make sure they are enjoying their work"* (CN, 4). Here, Nagele clearly demonstrates that he as a leader provides the most optimal conditions for his employees, but otherwise should not interfere in the process of how employees perform their work. This attitude builds on the focus on deliverables rather than processes (Action three) and the positive environment leaders seek to establish (Action six). Extrinsic incentives that provide employees with a feeling of freedom with responsibility as well as rewarding them for well-accomplished tasks are seen as instrumental means of securing motivation, but on a fundamental level what drives employees is the precondition that the daily work is enjoyable. Hansson is careful to select enjoyable projects and tasks, as he believes that work in itself, should be the motivating factor (DH, 4). Nagele explains it the following way: *"… so when it comes to making sure everybody is working and doing their best job, the incentives really do not matter. It is more about setting up a process and an environment that they enjoy"* (CN, 3). For the employees, the various extrinsic incentives have moderate effects, but the intrinsic incentive that enjoyable projects constitute, has a much stronger motivational effect.

Looking at this seventh action, we have uncovered that the enjoyment from working on projects originates from two main sources. Firstly, leaders hire employees with an interest in the organisation's area of business or they evoke the interest by highlighting their visions. Secondly, leaders go to great lengths in choosing projects that appeal to employees and in providing optimal conditions for carrying out these projects.

Action eight: Employees organise themselves independently

The eighth action focuses on the characteristics and responsibilities of the employees who have to organise themselves independently as a consequence of being outside immediate proximity of their leaders. As seen previously, leaders recognise their

reduced possibilities for control but here a pattern emerges in our data as to how employees should act to lead themselves.

Dyrmose, the CEO of Polycom Denmark, explains that having a virtual organisation causes high levels of freedom for employees, but simultaneously, this demands that they must organise themselves according to the circumstances (SD, 5). Employees must navigate the vast space between being given high levels of freedom and being expected to decode relevant circumstances. In revisiting the theory of self-technologies (Andersen, 2002), this task can be said to only be possible for already interpellated employees who have assumed their responsibility for self-organisation. In this way, the leaders discourse form a self-technology prescribing employees to organise themselves. Similarly, the following discourse becomes a self-technology that prescribes responsibility: *"When you have a system where power is taken out and hierarchy is taken out things are working differently. It is important that you take this responsibility upon you and become part of*

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> *I do think being highly organized, highly motivated, being willing to take a huge amount of risk and being OK with failure...*
>
> Ben Schippers

the team" (SD, 4). It is not sufficient to *have* responsibility; employees must *take* it in order to be a part of the team. This proactive and self-directed attitude has to be present at all times or you, as an employee, will be left behind. As Dyrmose notes: *"If you do not offer yourself then no one wants to have you"* (SD, 4). Here is it also evident that a control mechanism exists when employees organise themselves: If you do not take steps to be informed of the various projects that are beginning to take shape or are in progress, and actively seek to be part of those that would reside within the area of expertise and responsibility, you will find yourself outside the meaningful organisational discourses and in the end you will be betraying yourself.

Similar discourses are recognised in Workstreamer where employees are prescribed to put themselves on the line, to accept possible mistakes on their part and to move on, as Schippers defines his expectations for the virtual employee: *"I do think being highly organized, highly motivated, being willing to take a huge amount of risk and being OK with failure..."* (BS, 6). Only employees have already transformed themselves into responsibility-taking employees will have the capacity for fulfilling such demands. Self-technologies are also present when employees are required to be continuously flexible

and ready to shift focus as seen in Schippers description of how employees must be, *"... able to change and adapt"* (BS, 6). Employees must organize themselves in a manner that allows them to be constantly ready to re-prioritize and to follow new strategies – to invoke themselves with the leaders' changing discourses.

In Wildbit, the attitudes and actions of the employees are not that different from the leaders': *"In a sense, when you are working in a virtual team each person is kind of their own entrepreneur. They have to organize their own schedule, their own workflow, their own task management"* (CN, 2), Nagele declares. By elevating his employees to his level of responsibility, he is on one hand recognising them as equals but on the other hand he is expecting the same level of commitment and consistency, as he himself displays.

 This process of empowerment and expectations to take responsibility is further illustrated by the the word "us" to signal equality in selecting employees that fit Wildbit: *"... it has taken us a long time to really find not just good individuals, but good individuals that all work well together and appreciate each others' work"* (CN, 11). The employees of Wildbit are carefully selected for their professional and collaborative skills as a joint effort between Nagele and the employees. As were the case in the other examples this shows how discourses constitute self-technologies causing a self-evident need for a proactive attitude, self-organising and taking responsibility.

The empirical data has shown that leaders' discourses form self-technologies through which employees organise themselves. Furthermore, employees invoke themselves to be a complete and responsibility-taking person who is constantly informed and are proactively seeking to participate in relevant projects. They constantly absorb and transform themselves in accordance with changing inputs and strategies.

Action nine: Employees drive work processes with self-motivation

Employee motivation, as perceived by the leaders in the case companies, stems from providing employees with extrinsic incentives, from selecting enjoyable projects and from establishing positive work environments, as we saw earlier. But the overall responsibility for being motivated resides with the employees themselves. In continuation of the previous action's focus on employees' self-organisation, this

paragraph takes a closer look at the leaders' discourses involving self-motivation and self-drive in relation to employees.

Self-motivation is of high importance in virtual organisations due to the rare human contact between leader and employee, and between employee and employee, the low degree of attention daily awarded to each employee, the fact that some employees become "*out of sight, out of mind*" (CB, 2) and the challenge of time zones.

When asked to describe the main competencies of employees qualified for virtual organisations, Hansson stresses that, "*There has to be a self-drive*" (DH, 7). Not sitting next to each other on a daily basis entails not constantly being able to assess the mental condition of your co-worker, not being able to ask the right questions or even guide the person in the ideal motivational direction.

Dyrmose of Polycom confirms the necessity for self-driven individuals by stating that

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> *Those types that are principally self-directed are people I am quite good at leading, but I am not very good at leading someone who is just employed.*
>
> Bjarke Myrthu

employees of virtual organisations need to be "*resting in oneself – in one's own life*" (SD, 4). Employees should be mature enough to have achieved a sense of calmness concerning their background, thoughts and aspirations. Once employees rest in themselves, they will be capable of investing themselves fully in their current employment, instead of contemplating the many other directions life may have to offer. As with discourses we have seen previously, this discourse also animates the employees to relate to themselves and focus on moving forward in the organisation.

Myrthu states that "*those types that are principally self-directed are people I am quite good at leading, but I am not very good at leading someone who is just employed*" (BM, 7). The main difference being that the self-directed is a team player coming up with ideas and taking part in driving the company forward, whereas the person "just employed" only does what he or she is specifically told to do. The virtual climate is very poorly suited for the latter and highly accustomed for the former.

Nagele only recruits people to Wildbit who give out an appearance of being highly self-motivated. He determines people's self-motivations by scanning the online activity of each potential candidate. What weighs in is their contribution to open-source project, blogging frequency and social media behaviour (CN, 2).

In Wildbit, Nagele sets goals and makes sure the team in general is on track, but does not go into detail about how the individual employee is reaching his or her goals. The lack of time to focus on each employee also has consequences for motivation, as Nagele notes: *"As long as you have the right people you do not have to motivate them … a general rule is that each person is self-motivated"* (CN, 5). Nagele's constant underlining of his expectations to self-motivation is yet another example on how discourses prescribe the employees to invoke themselves.

With this ninth action, we have observed how the leaders have a concrete need for employing and activating self-motivated people in their organisations. Furthermore, leaders address self-drive, resting in one-self, self-direction and self-motivation and add weight to organisational articulations calling for employees to motivate themselves independently.

Action ten: Employees balance demands for flexible working hours with demands of social life

In the tenth action we are concerned with how employees balance the demands for flexible working hours and demands of social life and what leaders do to assist.

For Dyrmose of Polycom, striking a balance between work and social life begins with accepting that the virtual working hours are completely different from the traditional. Employees in Polycom are expected to be available at all times during the day and this requires a new mindset according to Dyrmose: *"… if you want to play in this virtual world … you have to think work and private life and your own person together in a whole other manner"* (SD, 3). Despite the demands of constant availability, Dyrmose has managed to limit the days where he has to be available until midnight to two days. He explains how he is able to resist the expectation of being available constantly: *"it is about putting your life into a system and daring to turn down* [requests for meetings outside normal office hours] *at the right times"* (SD, 4). Dyrmose has, according to Hunter & Valcour (2005), a high level of self-efficacy as he can organise his own workday and is courageous and empowered enough to reject proposal for meetings. Bottke acknowledges that it is extremely difficult to balance work and spear time (CB,

6) and also displays the courage necessary for upholding this balance. As she explains: *"(…) my former superior asked me when I was just hired if I wanted to have meetings four evenings a week for two hours or two evenings a week for four hours. And then I answered: "Neither." "* (CB, 6). Although she strongly rejects the demands on this particular occasion she is generally very flexible with her time, which is illustrated by the fact that she has videoconferencing equipment installed in her home. In accordance with Hunter & Valcour (2005), employees in Polycom seem to have high levels of autonomy and self-efficacy enabling them to systemise their schedules to give room to both work and social life.

In Wildbit, Nagele sees a problem inherent in the virtual environment in the sheer combination of self-motivated employees and the possibility to work constantly: Employees can work themselves into the ground (CN, 6). Avoiding this negative scenario is pivotal and Nagele brings his advice based on his holistic view of the employees: *"Understanding what people do with their personal time is very important to for me. That way I can understand that they are achieving those goals as well"*, he emphasizes (CN, 6). For employees of Wildbit, goals have to be reached both in work and in social life. This philosophy indicates that the culture, as described by Hunter & Valcour (2005), in Wildbit supports employees in devoting time and energy to thrive outside the work place.

   In 37signals, the employees are encouraged to lead rich social lives as the work environment is not perceived to hold sufficient amounts of human interaction as Hansson puts it; *"… the human contact you are not getting … during working hours, you have to get at another time. Or else it won't work"* (DH, 6). Following this line of thought, the leaders of 37signals give employees the autonomy and flexibility to maintain obligations outside work. These are made possible due to a realisation that performance increases for employees who are able to balance work and social life, as Hansson remarks; *"… the ones who perform well have strong social networks outside and the ones who perform poorly are the ones who don't"* (DH, 6). The culture here is also in support of employees setting time and effort aside for social obligations.

The tenth action has shown that leaders of virtual organisations see the necessity in employees having fulfilling social lives and therefore establish organisational cultures that support these. Furthermore, leaders give employees autonomy and flexibility to

organise a schedule that meets demands of both work and social life. Employees find this balance by being courageous enough to reject demands of constant availability.

Summary of empowering level of virtual leadership

The analysis of the empowering level of virtual leadership has extracted five action patterns from the empirical data and these have shown how leaders work to facilitate further actions taken by the employees.

Positive environments are important in any work setting, but particularly in virtual organising due to the extraordinary need for highly motivated participants. Leaders' ability to instigate and uphold such environment has been identified as an action that leads to more empowered employees (action six). Beyond such environments, the actual work has to be capable of engaging the individuals performing it and here the leader acts as the catalysator deeming what the employees are to spend their time on (action seven). Employees must be able to organise themselves to take part in virtual organising (action eight) and due to the "out of sight, out of mind" tendencies in many dispersed corporations, self-motivation is required to drive work processes onwards (action nine). Finally, being an empowered employee does not matter if your personal life is a mess; every organisational member must seek to achieve a healthy balance between work and private life – in order to live up to work-related expectations (actiont ten).

LEVEL	ACTIONS	DESCRIPTION
Empowering *Leaders empowering employees to distribute responsibility and minimize the problem of lack of control and thereby secure performance*	6. Leaders create positive environments	Leaders influence the environment of their organisations by spreading positive and enthusiastic stories while ensuring that communication is kept as open as possible.
	7. Leaders select enjoyable projects	Leaders go to great lengths in choosing projects that appeal to employees and in providing optimal conditions for carrying out these projects.
	8. Leaders expect employees to organise themselves independently	Employees are prescribed to construct a meaningful presence to stay constantly informed and are seeking to participate in relevant projects.
	9. Leaders require that employees drive work processes with self-motivation	Leaders have a need for employing and activating self-directed people sufficiently stimulated by the cause of the company to motivate themselves independently.
	10. Leaders seek employees balancing demands for flexible working hours and social life	Leaders of virtual organisations see the necessity in employees having fulfilling social lives and therefore construct organisational cultures that support these.

Table 3 - Summary of empowering level of virtual leadership

The empowering level of virtual leadership is fundamental in shaping and maintaining self-organised, self-motivated and well-balanced individuals thriving with enjoyable tasks within positive environments. If all these five actions are taken, all five requirements are met, the problem of being outside immediate proximity of employees as a virtual leader is evidently diminished because the the team will performing dillingtly.

Enacting level of virtual leadership

The guiding objective of the enacting level of virtual leadership is to shape autonomous, self-organising teams comprised of both leaders and employees working for a shared purpose and hereby jointly securing performance of the group. We will in this paragraph deal with five enacting actions observed in the empirical data, identified as crucial to improving virtual leadership. Firstly, *leaders facilitate informal communication*. Secondly, *leaders award trust in their employees' individual judgement*. Thirdly, *leaders and*

Model 6 – Enacting level of virtual leadership

employees build personal relationships. Fourthly, *leaders and employees make joint decisions*. Fifthly, *leaders and employees cooperate in autonomous groups*.

Action eleven: Leaders facilitate informal communication

We shall now turn to the role of informal communication among members of a virtually organised group. Efforts to secure performance or execute control mechanisms among people will only succeed, if the informal ties existing between the units are well in place.

Weick (1979:8) claims that mutual influence between pairs of group members in fact lies at the root of most control observed in much larger contexts and points out that the leader despite the presumption of ordering performance in fact constitutes a minor contribution to the outcome. It is the mutually supportive relationships built up among small subsets of the group members that hold the organisation together and become activated in response to the leader. Herein lays the reciprocal nature of an enacted environment.

Bottke of Polycom is well-aware of the role of informal communication – particularly within the virtual environment, in which formalisation is a precondition for collaborating – and has experienced some challenges. As she explains: *"Some of my American colleagues found me weird when I met them, because I asked whether they had wife and children and*

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> *It's kind of like sitting around in an office. We joke around, we laugh, we talk about where we hung out last night, stuff like that.*
>
> Chris Nagele

what they did and they weren't used to this behaviour" (Bottke, 8). Regardless of hierarchy or function, the Danish marketing manager feels compelled to form a "mutual support relationship" to improve the quality of a given communication link. Her experience shows that once awareness of the other person's background is established, the feedback will flow faster back and forth and both individuals will be more interested in helping the person on the other end of the line. When requested to explain where the need for knowing personal details about her work colleague comes from, Bottke says: *"…because I found it was important for me to have an understanding of the person, with whom I was communicating. What background he has and which things that concern him in his life."* (Bottke, 8). When posing questions, Bottke test the water and does intuitive research on whether a bond can even be built - whether there is potential for a mutual support relationship, or to place it in the language of Weick: Whether the person on the other end is interested in playing out his version of the charade (Weick, 1979:152).

The leader of Wildbit is highly aware of the significant role that informal communication plays in a virtual environment: *"…after we get through the more structured communication of what we are going to do, it's really just joking around"* (Nagele, 5) states Nagele, and he describes how online chatting can simulate a physical working environment: *"It's kind of like sitting around in an office. We joke around, we*

laugh, we talk about where we hung out last night, stuff like that" (Nagele, 5). With the Wildbit team being spread out on both sides of the Atlantic Ocean, the maintenance of a strong social dimension carries great importance also in respect to keeping up the level of motivation. According to Nagele, every team member can learn much about the personalities of other team members through technological tools like IM, Campfire (group-based chat) and infrequent Skype conversations (video-conferencing) and he makes a point in emphasising that "*you don't need a face-to-face meeting for that*" (Nagele, 8). In other words, rich communication can take place across all dimensions of the organisations and relationships can be built between all team members even without arranging physical meet-up's.

Having met in person, knowing each other and having some social relation is of high importance when collaborating virtually. It leads to more qualified and more efficient communication, when you know who the person in the other end is. The degree of personal awareness directly influences the motivation of group members and the quality of the work produced.

Action twelve: Leaders award trust in employees' individual judgement

The subject of trust is much discussed within the research of virtual teams and similarly in our case studies we traced a pattern of references to trust. As laid out by Ripperger (1998:45), trust implies a giver (in this case the virtual leader) and a taker (in this case the virtual employee) and leads to the opportunity of doing harm (breaking the trust by not living up to the trust expectation) or assisting (honouring the trust by living up to the trust expectation). In this sense, a leader enacting a trust environment is at the same time enacting expectations to everyone taking part in this environment (Weick, 1995:216).

The CEO of the Danish department of Polycom, Steen Dyrmose, makes sure he leverages a lot of freedom and responsibility out to his employees based on trusting that people will be doing their utmost for the specific project and the company in general in accordance with a model constructed by each person. Bottke adds that what substitutes the lack of control experienced in virtual organisations is the trust awarded by leaders

to their employees and the following widespread delegation of responsibility areas.

For Nagele it is more a question of facilitating the composition of trust between all members of the team rather than himself awarding trust. His job as a trust orchestrator (or trust enacter) is centred around making sure; "*that each employee trusts each other's work … you need people who are very confident and very, very good at what they do, because then they are all going to trust each other on the work that they produce*" (Nagele, 11). Hence, the most important purpose for trust in Nagele's view is promoting an effective process for product development.

Hansson does not see trust as a crucial demand for keeping up the performance of 37signals. On the contrary, he regards trust as an overrated concept particularly when talking about persons working on visible milestones or visible parts. With Hansson's hands-on approach to management, measurement of deliverables takes the place of trust actions. However, this priority does not mean that the two partners of 37signals do not award great trust in their employees in the daily organising. As a rule, holidays are not counted, which means every member of the team is allowed to take as much vacation as he or she feels is reasonable. Similarly, all team members have their own credit cards without any associated expense reports. Great individual responsibility certainly follows such protocols, but Hansson has found that it helps to focus on the important tasks: "*We have discovered that when you put this degree of trust onto people, it removes the focus that could be on "how much am I earning now", etc. – people just care about the work they have and make sure it's interesting*" (Hansson, 4). In this sense, the trust actions imposed in the environment enacted by the 37signals partners help to enlarge the degree of experienced autonomy awarded to the employees and the trust expectation is that this sense of autonomy will lead to greater job performance.

We have observed in our empirical data that trust represents a substitute for the experienced lack of control in virtual organisations. The leaders of our case studies confirm that trust is needed to maintain the motivation to participate and contribute, but trust can also be overrated and should not be replaced by evaluation of deliverables.

Action thirteen: Leaders and employees build personal relationships

Human beings have a fundamental need to interact with and be accepted by their fellows (Silverman, 2006:78) and therefore make an opportunity to become intimate with others. As a consequence, employees tend to form cohesive groups with those doing the same kind of job or working at the same place. Throughout our research, we have observed leaders also wanting to move beyond informal communication, go beyond awarding trust, and form personal relationships with their employees – also to strengthen the quality of relationships within the organisations. This thirteenth action focuses on the hiring of new employees, the building of personal relationship and the following relationship maintenance.

When hiring new employees, the most important thing for Myrthu of Storyplanet is that the visionary outlooks including dreams (personal) and goals (professional) are shared. Privately enacted environments such as maps of if-then assertions should be made public through verbalisation in order secure alignment between the causal maps of the organisational members (Weick, 1995:226). As he openly states: "*I hire people that I want to become friends with and that I often times already am friends with*" (Myrthu, 10). Either Myrthu recognizes the potential for a friendship or the relation has already been actualized and become a mutually recognized social link. To increase the likelihood of friendship, Myrthu has only been finding employees through the network of existing contacts, which also provides a strong sense of security.

For Nagele, hiring new employees is first and foremost about understanding people's personalities, which he forms an impression about by reading what the person publishes online, tracking where the person is particularly active and assessing the connections of the person. An up-to-date online presence will provide sufficient information about intellect, interests, personality and capability to be used when weighing the pros and cons of hiring a new person. Nagele explains that the team puts much emphasis on continuing to be an environment of friends having fun – as he says many times during the interview: "*We're all really good friends*" (Nagele, 5) and the person hiring therefore also carries the responsibility of not disrupting the current working climate by bringing in an inharmonious determinant. Every action of hiring a new person enacts a renewed environment.

> " *...when you meet people, you build a personal relationship to them. This glimpse in the eye, it is easier to joke around and be direct, when you have met people. This makes it much easier to collaborate afterwards. You have a mutual understanding.*
>
> Camilla Bottke

When it comes to building and maintaining personal relationships, the partners of 37signals prefer face-to-face team meet-ups for the entire team (in fact, "*here nothing really beats face-to-face*", Hansson, 3). Besides discussing larger themes and whether to change elements in the way things are being run, the intended purpose of the meet-ups is for everyone to experience each other's personalities. This includes getting a feel for body language and for how people are doing at the time and generally refreshing your personal impression of every member of the team. Such gatherings may also work as reminders that the virtual organisation does not consist of distributed robots; that "*you are actually working with personalities behind the screens*" (Hansson, 4) – a healthy reminder in any organisation. Again, an interesting notion is here that physical meet-up's can be used to unite privately enacted environments into aligned public constructions (Weick, 1995:226).

Also among the strong proponents of social bonds is Bottke, who believes that for a virtual organisation to continue to exist, there has to be personal relationships within the group. Her main advise to leaders of virtual organisations is that they secure a common ground and shared understanding with their employees as their first priority. She realises that a face-to-face meeting is an excellent start "*...when you meet people, you build a personal relationship to them. This glimpse in the eye, it is easier to joke around and be direct, when you have met people. This makes it much easier to collaborate afterwards. You have a mutual understanding.*" (Bottke, 4). To Bottke, the fruitful professional collaboration presupposes a personal relationship. Dyrmose agrees that relationships among colleagues greatly improve collaboration, as he draws the example of having more benefit from communicating via video, when you have met in advance.

Finally, Werdelin of Joost adds that "*the best places, where* [virtual organisation] *works, is where you are working with people you know – either people you have known for a long time or have spent some time with. Then you can use virtual tools to supply this personal base*" (Werdelin, 4). Following the trail of Werdelin, the virtual communication tools can work to extend the existing enacted environment.

The leaders of our case studies talked about sharing dreams, knowing each other's personalities before knowing each other's resumes, having meet-ups to promote friendship and establishing the personal base as a precondition for succeeding with virtual organising. Social bonds also appear to be playing an important role in securing performance of virtual organisations.

Action fourteen: Leaders and employees make joint decisions

What has been widely recognized in recent times is that those who contribute to creating also tend to support the company's bottom line. An organisation, where the employees take an active role in planning goals, designing the workplace, and laying out how to implement needed changes, will be a vibrant, healthy place to work (Dew, 1997:110). As long as employees can be engaged through the planning and design of the workplace, they have a stake in the outcome and will work more diligently for success. The fourteenth action is concerned with the how joint decision-making is taking place in virtual organisations and could be regarded as how leaders and employees "co-enact" the organisational environments.

Decision-making processes in Wildbit are largely group-based to keep everyone closely involved and the team dedicated to future tasks. As Nagele explains, the whole team discusses the issues and then arrive at a joint decision. "*And again that goes back to making sure that everybody is accountable and everybody is vested in the direction of the company and the products.*" (Nagele, 4). Clearly, Nagele seeks to lift motivation by aiming at consensus-based decision making, and points to the consequences of the group's decisions: "*If everybody signs on and agrees to where we want to go with the company, then we know that everyone is going to work their hardest to make that happen*" (Nagele, 4). The logic is: Once you have said A, you also have to say B. Or to fit the context: Once the team has made a consensual decision, it also has to live up to that decision. Nagele explains the role of group expectations: "*…this sets up expectations for the team. In any work environment expectations are very, very important … it makes somebody feel good that the rest of the team feels that they did a good job*" (Nagele, 6). The team defines the expectations, the team works at its hardest to live up to those expectations and the team punishes itself if the expectations are not being met. It appears "co-enactment" serves a

good performance-securing purpose.

In practice, decision-making processes in companies like 37signals, Polycom and Workstreamer are fairly democratic (Schippers, 5; Bottke, Hansson, 5), but the organisational structures are never entirely flattened with equal voting power dispersed to everyone. Hansson stresses that they have sought to eradicate any trace of hierarchy and rather than pointing to positions, they let arguments rule. According to Dew (1997, 118), building consensus does not mean that everyone in the group agrees with the group's decisions one hundred percent. Consensus is reached through discussion, in which everyone has to understand the objectives attempted to be met by making a decision. Throughout negotiating discussions, compromises are met to ensure that the cohesive group can stay on course to reach its objective.

Dyrmose of Polycom has his own variant titled "Viking management" (Dyrmose, 5), a model that preaches awarding full decision-making power to the most competent individual in the team. For instance, heavy economic questions are handled only by the CFO, highly technical issues are resolved by the CTO, etc. This trust-based approach building on a delegation of responsibility does not necessarily lead to great cohesion among the team.

"*As much decision power as possible*" (Werdelin, 8) is being awarded to employees at Joost, which in practice means employees get to decide within their pre-defined area of responsibility. People should not be asking for permission for everything they do, as Werdelin explains, and confirms his belief in a relatively open and responsibility-promoting working environment.

When asked directly, several of the leaders do acknowledge that they themselves are making the final decisions. Schippers states that "*at the end of the day, I am usually the one making the call regarding the product*" (Schippers, 5) and Nagele follows up saying "*it's me that makes the ultimate decision, but the rest of the team contributes*". With both Wildbit and Workstreamer, it appears that discussions are taking place between all members of the group, opinions are weighed for and against, and the leader then uses the total sum to point the actual direction.

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>
> *...it's me that makes the ultimate decision, but the rest of the team contributes.*
>
> Chris Nagele

Group decisions are important to build accountability and responsibility among the group members and take off the pressure from the leader. Although decision-making processes are only "fairly democratic" and sometimes left completely to the leader, leaders seek to form consensus around the direction of the organisations and thereby gather the team around a decision.

Action fifteen: Leaders and employees cooperate in autonomous groups

Previous actions in this level have spanned from informal communication to trust building and from the bridging of personal relationship to joint decision-making. Through interlocked behaviour cycles, these actions have all helped to enforce the consensus between the cognitive "maps" - or privately enacted environments - of the different individuals necessary for bringing the organisation to function as a whole. Sensemaking – as defined by Weick (1995) – is about invention, not just discovery, and not about inventing truth, but seeking reasonableness. The previous socialization processes have shaped a culture comprised of common ideas and common sensemaking. The last and fifteenth action will focus on the enacted environment of set for autonomous groups implicating both leaders and employees.

   In all our interviews with leaders of our case companies we find that the room of autonomy is important for identification and motivation. Myrthu accentuates his closely knit group, Bottke points to the freedom in the daily work, Dyrmose regards freedom as the inescapable element rewarded by managers to employees, Nagele describes how only team-defined expectations rule Wildbit, Schippers states that employees are involved on multiple levels, Werdelin idealises the thought of self-actualising individuals, and to Hansson, freedom is regarded as an efficiency amplifier. In sum, autonomy helps the leader in the process of enactment to set the stage for sensemaking, and not only that, the perception of autonomy can help to insert orderliness in otherwise random settings. The concept of autonomy may even help to remove constraints existing in the enacted environments of organisational members and thereby enlarge the field for action.

   The organisational philosophy of Hansson is that the smaller the group, the larger the productivity of every single employee and he explains his view: "*Often people become*

powerless, when having this concept of a "leader", because you can just delegate all the decisions to this leader and then you don't need to take any responsibility" (Hansson, 11). In different terms, employees become disempowered by passing responsibility for specified tasks and decisions on to an appointed manager. If organisations step away from such responsibility separation, people will become self-organising and self-managing. Once you "*have this mandate to "figure this out yourself" or "solve the problem in the way you find reasonable", then people have an extraordinary ability to rise to the occasion*" (Hansson, 11). Enacting the group's level of autonomy will lead to greater empowerment and further the motivation.

As we have seen earlier, sensemaking involves symbolic processes, through which reality can be created and sustained. The content of sensemaking comes from already existing symbols, norms and social structures that human beings reproduce and transform. A sign becomes a symbol, when it is being interpreted not just based on what is signifies, but also from a pattern of meaning being associated with it. Particularly three organisational symbols are of interest here: Labels (what something is), metaphors (how something is) and platitudes (what is normal). Firstly, if Hansson actively labels himself in the organisation of 37signals as a "team member" and not as a "manager", he will enhance the conceptualised phenomena of being this autonomous team without appointed managers. Secondly, if metaphors concerning team members rising to the occasion are flourishing throughout the company communication, these stories will affect how team members perform tasks in a direction affected by the

> "
> *...we are certainly taking things one or two weeks at a time and have a general aversion to planning as a concept.*
> David Heinemeier Hansson

metaphor. Thirdly, a platitude such as "*we are certainly taking things one or two weeks at a time and have a general aversion to planning as a concept*" (Hansson, 10) becomes a basis for sensemaking among other team members. Following the Thomas Theorem stating that "if men define situations as real, they are real in their consequences" (Weick, 1995), labels, metaphors and platitudes are all shapers of the cognitively experienced realities of organisational members. This sensemaking process is also referred to by Weick (1995) as *committed interpretation,* which introduces stability into an otherwise complex flow of events and increases the social order.

Concepts such as autonomy and freedom are being valued across all case studies and we have particularly recognised a pattern of autonomy-related stories being told to enact environments based fuelled with associations to autonomous teams. Hereby, the collaboration taking place between leader and employee in work teams are enhanced as positive spaces with room for every team member.

Summary of enacting level of virtual leadership

Analysing the enacting level of virtual leadership has enlightened the leader-employee collaboration relation and we have cast further light on how leaders can secure performance when outside immediate proximity of their employees.

The facilitation of informal communication leads to greater motivation to take part in the organisational work and thereby higher quality in what is produced (action eleven). Informal communication will also lead to intensified trust across all members of the team and can hereby substitute previously existing needs for control (action twelve). A further step is the establishment of interpersonal ties and relationships nurtured via the communication tools and occasional face-to-face meet-ups (action thirteen). With a solid base in place, decision-making processes are largely taking place in the team to increase accountability and responsibility for everyone (action fourteen). Lastly, we saw how

LEVEL	ACTIONS	DESCRIPTION
Enacting *Leaders enact a social setting to engage employees in the practice of virtual organising and thereby secure performance*	11. Leaders facilitate informal communication	Leaders focus on informal communication, because having met in person, knowing each other and having some social relation is of high importance when collaborating virtually.
	12. Leaders award trust in employees' individual judgement	Leaders confirm that trust is needed to maintain motivation to participate and contribute, but trust can also be overrated and should not be replaced by evaluation of deliverables.
	13. Leaders and employees build personal relationships	Leaders are aware of sharing dreams, knowing each other's personalities, having meet-ups to promote friendship and establishing the personal base.
	14. Leaders and employees make joint decisions	Leaders seek to form consensus around the direction of the organisation and thereby gather the team around a decision, despite often taking the final decision.
	15. Leaders and employees cooperate in autonomous groups	Leaders tell autonomy-related stories to enhance the experience of working in an autonomous team, which strengthens the group collaboration.

Table 4 – Summary of enacting level of virtual leadership

concepts such as autonomy and freedom are aspiring groups of leaders and employees to cooperate more freely (action fifteen).

In relation to the research question, the *enacting* level constitutes a stronger unit between leader and employee and dissolves the need for constantly controlling the work processes. Instead, the work relation becomes a mutually rewarding experience based on informality, trust and personal relations, and the organisation benefits from the tighter coupling.

CHAPTER 5

DISCUSSION

The purpose of this chapter is to elevate the level of the text to a more general and overarching perspective, from which we can reflect on the interconnectedness of our findings.

The concept resulting from this exercise shall dissolve the dilemma of the research question and instead present us with suggestions, in this context referred to as hypotheses, which can help us understand the foundations and processes associated with virtual leadership.

The disposition of the discussion is as follows. Firstly, we present the important findings. Secondly, we summarise our concept of virtual leadership. Thirdly, we reflect on the general use of our concept. And fourthly, we evaluate whether our concept is *good theory*.

Important findings

In this paragraph, we abstract from the analytical findings and seek to simplify our levels and actions into fewer and more general hypotheses that in a fair and coherent manner can represent the analysis. By developing three archetypical roles fundamental to virtual leadership, we aim at contributing with new theory that can carry the capability to "*explain, predict and delight*" (Weick, 1995) for those seeking to understand virtual leadership.

Virtual leader as narrator

> Actually, I think it's wonderful that there are so many larger companies who feel that they need this kind of posturing. It means that all the smaller companies have highly improved possibilities of running in circles around them, when it comes to productivity, when it comes to launch market, etc. Our fear is certainly not that Microsoft throws more people into Sharepoint; our fear is that they throw less people into Sharepoint, that they try to make products under the same conditions as we are making products. *That* is where we fear the competition.   (Hansson, 9)

This quotation from 37signals' Hansson contains an interesting narrative outlining the position of 37signals (small company), clearly identifying the current opponent (larger companies, e.g. Microsoft), presenting where the company is intending to head (increased productivity) and pointing to who will help them get there (employees and customers). The story plays on the juxtaposition between the "good" flexible, smaller, smart teams and the "bad" heavy, bureaucratic, slowly adapting corporations. Emotional factors like "fear" are brought into the equation to underline the significance of the battle being fought, and classic metaphors like "Tom & Jerry" or "David & Goliath" can easily be aligned in the main plot.

By drawing up dramatic schemes (see the adventure actor model sketched in model X), Hansson is capable of mapping the activities of his company into a sensemaking framework. Czarniawska (1999:14) explains the purpose of narratives for leaders: "*The
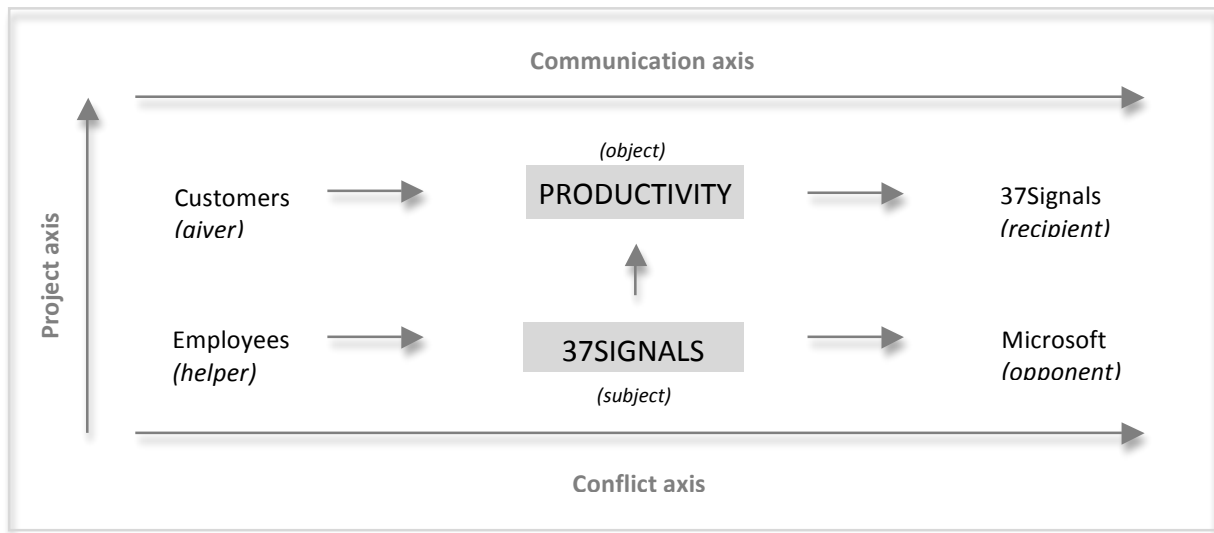
Model 7. Adventure actor model (inspired by Greimas, 1966)

narrative mode of knowing consists in organizing one's experience around the intentionality of human action. The plot is the basic means by which specific events, otherwise represented as lists or chronicles, are put into one meaningful whole". The intention inherent in Hansson's story is to strive for greater profitability while staying true to the organisational and production-oriented philosophy, which grounded the early success of 37signals. The sensemaking experienced by all members of 37signals is centred around the *process* leading to the objective – and the plot is to fight against unfair giants like Microsoft through the help of skilled team members.

As shown above, storytelling is a powerful tool for forming a sense of belonging in a virtual organisation and for building an organisational identity. In virtual environments, where fragmentation often is a starting point, integrating means such as storytelling may carry additional importance.

Nymark (2000:51) defines stories as "*highly charged narratives building on events but enriched, enhanced, and infused with meaning*". Such narratives exist in any given organisational context, regardless of whether the leader is aware of their impact. According to Weick (1989:527), stories convince, not because they are truthful, but because they are lifelike, coherent, believable, and because they have verisimilitude.

Having established that storytelling in the shape of meaningful narratives bear a positive effect for virtual leadership, it is of interest to assess what kind of story that would prove more beneficial for a leader. Here, what distinguishes the good storyteller from the bad is the inclusion of a sense of pointedness. To draw an example from

science, the parsimony of scientific stories does not result from a philosophy commending parsimony; rather, it is a result of the way we read science, our ability to fill in the blanks, telling stories in our culture (McCloskey, 1990:19). Similarly, when the leader of a virtual organisation has a pattern of pointedness as a built-in element of his narrative, his audience will have a native ability to comprehend how to work towards the suggested goal.

As previously declared, the authors of this thesis are embedded in the social constructivist tradition. This has consequences for how we approach our research field, for how we analyse our empirical data and for how we seek to understand our findings, and certainly storytelling is strongly connected to social constructivism. The crucial point about social constructivist research is not as much that social phenomena is the result of social processes, but that is has the form of negotiation or persuasion (Jensen, 1996).

Social phenomena take place in a space of rhetoric and therefore any understanding of such processes must take the form of storytelling and it is through the structure of narrative that new denotations and meanings are formed and sense is created. This leaves a possibility for new action and interaction. Through new stories, it is possible to create new understanding and self-understanding, which enables new agents in social reality to act in new ways.

Weick (1995) rhetorically questions what is necessary in sensemaking:

> …something that preserves plausibility and coherence, something that is reasonable and memorable, something that embodies past experience and expectations, something which resonates with other people, something that can be constructed retrospectively but also can be used prospectively, something that captures both feeling and thought, something that allows for embellishment to fit current oddities, something that is fun to contrast. In short, what is necessary in sensemaking is a good story.   (Weick, 1995:60-61)

The telling of stories or the story in itself contains the possibility of change and only through stories about events in organizations are realities of these events created (Nymark, 2000:14). Hereby, the reality is structured as a story rather than a causal,

rational chain of cause and effect and these stories take part in the interpretive struggle of everyday sensemaking.

Storytelling in virtual organisations is not limited to one-way monologues from leaders to employees; ideally discourses emerge throughout the organisation and gain their own life. The influence of discourse is touched upon by Senge (1990:241): "*In dialogue people become observers of their own thinking ... what they observe is that their thinking is active*". As an example, Senge pictures when a conflict surfaces in a dialogue, then people are likely to realise that there is a tension, but this tension arises directly from our thoughts. Therefore, it is our thoughts and the way we administer our thoughts that are in conflict, not us. Once you realise and acknowledge the participatory nature of your thought, you may begin to separate yourself from your thought and begin to take a more creative, less reactive, stance in order to adapt into the organisation.

Fit with the structuring level. Leaders of virtual organisations can use storytelling to maintain structuring guidelines by focusing on stories about "in what way things started", "how things are done" and "why we are doing things this way". This narrative provision of instruction and reasoning helps the organisational members to adapt into the virtual organisation and recognise meaningful patterns in everyday practices.

> **Hypothesis 1:** The virtual leader tells stories that help the organisational members to adapt and thrive in the virtual organisation.

Fit with the empowering level. The phrasing and presentation of a story delivered by leaders of virtual organisations must be open to allowing listeners to read themselves into the story. Stories must be shaped and personalised for the audience in order to involve and encourage action. Thereby stories become the leader's tools of employee empowerment.

> **Hypothesis 2:** The virtual leader phrases narratives openly to allow listeners to read themselves into the story.

Fit with the enacting level. Virtual leadership is highly based on the use of discourses to enact social realities among dispersed groups. Here, the leaders must reflect on the desired enacted environment, as the choice of words is directly contributing to the state of the organisational culture. The intention of this thesis is to uncover how performance can be secured and therefore stories centred round productivity may stimulate a more productive team.

> **Hypothesis 3:** The virtual leader brings discourses to enact attentiveness to the need for productivity.

Virtual leader as connector

> Some of my American colleagues found me weird when I met them, because I asked whether they had a wife and children and what they did and they weren't used to this behaviour. There is a very big difference in how personal you can be. I have been asking about these things, because it is important for me to have an understanding of the person I am sitting with. "What background does he have?" and "what excites him in his life?". (Bottke, 8)

A thread running through our actions is the specific need for personal relations to be bridged between the organisational members. Bottke of Polycom explains above how it is mandatory for her ability to cooperate with her colleagues that she knows and understands the person she is communicating with virtually. A social relationship can help ground a latent awareness of the other person, despite geographical separations, and improve the team's performance.

Since virtual organisations face different circumstantial challenges, approaches to culture-performance relationships are likely to be within a contingency perspective. Goffe & Jones (1998) address the matter by asserting that there is no "right" solution for solving the dilemmas of organisational culture; the most appropriate culture for an organisation is the one that helps it cope with its competitive surroundings.

Goffe & Jones (1998) are preoccupied with the concepts of sociability and solidarity in their analysis organisational culture.

Firstly, the term *sociability* expresses the degree of friendliness between members or a community or group and where sociability is high, people help each other because they want to, with no thought of favours in return. This dimension of the relationship between people is essentially based on feeling and emotions and where it exists, people tend to value the relationship for its own sake. The advantages of high sociability are high morale, fostering of teamwork, creativity, openness and sharing of ideas, and promotion of innovation and uninhibited cross-fertilisation of ideas. The disadvantages are that strong friendships can mean that poor performance is tolerated, it may degenerate into cliques, cabals, in-groups and out-groups, which results in behind-the-scenes politicking, and it may be an unpleasant situation for people who value their own personal space and privacy for thought.

Secondly, *solidarity* expresses the degree of collectiveness (as opposed to individuality) in the relationship between people. Where solidarity is high, people have a sense of common purpose because they have shared goals, tasks and mutual interests. Thus, even if people do not particularly like or admire their colleagues, they tend to make common cause and work well together. The advantages of high solidarity are ruthless commitment to getting done what needs to get done, stimulating team feeling of working towards and achieving mutually agreed goals, and clarity about the rewards for good behaviour. The disadvantages are that cultures that are high in solidarity can be ruthless in suppressing dissenters and too strong a focus on group goals can oppress or hurt individuals.

Based on sociability and solidarity, Goffe & Jones (1998) introduce the Double S Cube, which has sociability on the vertical axis and solidarity on the horizontal axis – both with values running from high to low. The model is presented in a 3D square to highlight the negative aspects behind all values of the model. Organisations characterised by high sociability and low solidarity are a *networked* culture (usually large, highly successful companies, which perhaps had a communal culture at an earlier stage). The opposite version, characterised by low sociability and high solidarity, yields a *mercenary* culture (beneficial in a fast-changing business environment where competitive pressures are high). An organisation low on both dynamics is termed a *fragmented*

Model 8 – Double S Curve (Goffe & Jones, 1998:22)
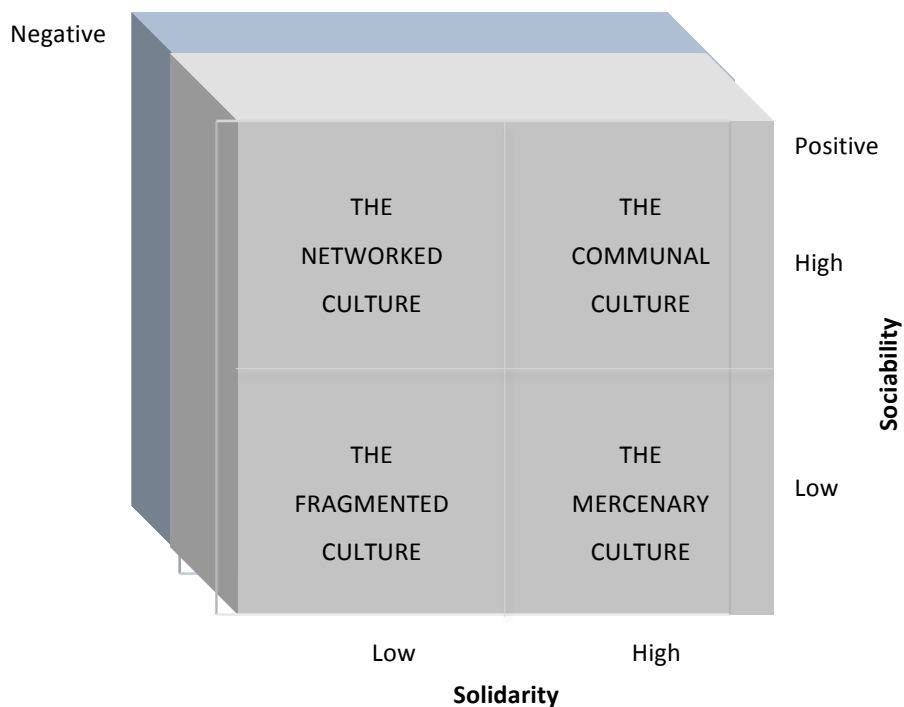
culture (interdependence between activities is low and critical success factor is having star individuals in particular fields), and an organisation with both high sociability and high solidarity is referred to as a *communal* culture (frequently found in thrusting, successful, small to medium-sized organisations, occasionally in larger firms).

When Bottke expresses that "*it is important for me to have an understanding of the person I am sitting with*" (Bottke, 8), she emphasises her wish to bring Polycom from a mercenary culture towards a communal culture, in which not only solidarity, but also sociability ranks high on the organisational agenda. Given the lack of sociability nurtured by time spent physically together, the need for sociability is more explicit in virtual organisations and the pressure on the leader to connect group members and secure a high sociability is larger than in traditional organisations.

A pattern of adherence to the communal culture can be found among all our case studies and it resonates well with the challenges of virtual organisations. Strong sociability results in people working in a highly collaborative, flexible and mutually supportive way, and their high solidarity unites them in a common sense of purpose: "the competition tends to be seen as an enemy that needs to be defeated" (Goffee & Jones, 1998:29).

Fit with the structuring level. Leaders who connect the social strings of their virtual organisations by taking part in, supporting and arranging sociability-increasing events will at the same time ground social structures that can knit the work processes closer together and secure performance despite geographical dispersion.

> **Hypothesis 4:** The virtual leader supports events to ground social structures and knit the work processes together.

Fit with the empowering level. Through the leader's stimulation of sociability and solidarity and the following move towards the communal culture, group members can feel calmer about working in safe settings, inspired by the backing of the other group members and empowered to pursue individual as well as organisational goals.

> **Hypothesis 5:** The virtual leader stimulates communal culture to empower the team to pursue organisational goals.

Fit with the enacting level. It is up to the leader of the virtual organisation to enact the cultural setting, which is found more beneficial to reach the outlined goals. Most important is not that the organisational settles into a communal culture; most important is that the organisational members can find reasonableness in the dispositions of their employer.

> **Hypothesis 6:** The virtual leader enacts the cultural setting found more beneficial to reach the outlined goals.
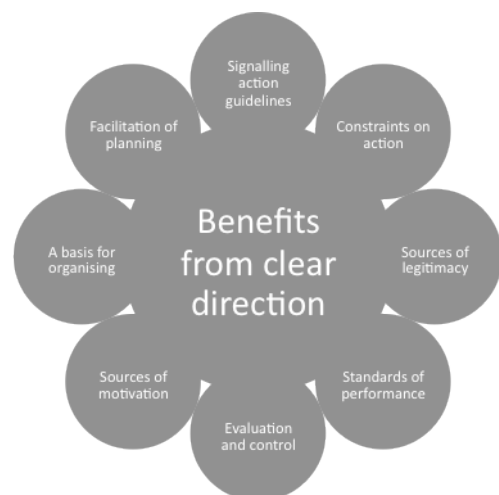
Virtual leader as director

> Once we do the next round of financing they will all get stock options and I think at this point people have really bought into the vision, they can sort of see where Workstreamer is going and because of that, they are really excited about the opportunity to help us get the next round of financing, because then they will get stock options. (Schippers, 4)

The ability to identify goals and direct the team towards those goals is a vital component of virtual leadership. In the case of Schippers, the laid out direction is to secure the next round of financing and this milestone serves to increase the excitement and motivation of the team. The fact that the goal contains extrinsically motivating outcomes in the shape of stock options only helps to secure the team's performance.

Rollinson (2008:477) addresses the benefits, which leaders can derive from having clear and explicit goals and draws up eight areas. First, goals *signal action guidelines,* as when Schippers points to the financing round, a list of tasks is included as a premise. Second, goals set *constraints on action*, that is, when firm priorities indicate things that should not occur. Third, goals are *sources of legitimacy*, meaning goals justify an organisation's existence and activities to external stakeholders and this helps with the acquisition of necessary resources. Fourth, goals set *standards of*

Model 9 – Benefits from clear direction
(Based on Rollinson, 2008:477)

performance, for example when Schippers indicates what should be achieved, standards are set against which future performance can be evaluated. Fifth, goals justify *evaluation and control* by implying that performance should be monitored and thereby allowing remedial action to be taken to correct performance deficiencies. Sixth, goals are *sources of motivation*, when explicit statements of what should be achieved are perceived as challenges to employees leading to a motivational effect. Seventh, goals are *basis for organising* in prompting consideration of factors such as structure, technology and the human resources that are necessary for goal achievement. Eighth, goals are *facilitators of planning*, as they do not only specify what should be achieved, but also time horizons

(e.g. a deadline for the financing round), which enables activities to be coordinated and resources to be available when they are needed.

In traditional organisations clear and explicit goals may carry less weight due to the leader's ability to constantly observe and adjust performance of the actual work as it is being done. This process intimacy is lacking in virtual organisations and therefore the leader's actions for directing goals are particularly important within these settings.

Having established the role of the virtual leader as director, we can further examine the key areas for organisational goals as presented by Rollinson (2008:479). He emphasises *market share* (signalling the virtual organisation's intended position), *innovation* (staying apace with, or ahead of, competitors), *productivity* (promoting internal efficiency in the virtual organisation), *physical and financial resources* (ensuring adequate finance and other resources for the company), *profitability* (ensuring adequate return to financial stakeholders), *manager performance and development* (managerial quality assumed to be the most important factor in organisational success), *employee performance* (if an organisation develops its managers, it should also develop other employees) and *social responsibility* (ensuring that the firm responds appropriately to wider society).

Model 10 – Areas requiring direction
(Based on Rollinson, 2008:477)

In short, virtual leaders should formulate goals that define and plan positioning, innovation, productivity, resources, profitability, leadership, performance and social responsibility.

Fit with the structuring level. By defining and presenting clear directions within the prominent strategic areas, leaders of virtual organisations reap the benefits of structuring elements such as standards, guidelines, constraints, planning and evaluation, all of which help to secure the team's performance.

> **Hypothesis 7:** The virtual leader defines standards, guidelines and evaluation procedures to secure performance.

Fit with the empowering level. Leaders of virtual organisations can through steps of direction assign tasks to individual employees, regulate areas of responsibility and thereby optimise the sources of motivation. Ideally, the leader's direction and accompanying tasks infuse greater employee-experienced empowerment.

> **Hypothesis 8:** The virtual leader assigns tasks to individual employees to optimise the sources of motivation.

Fit with the enacting level. When leaders of virtual organisations choose and communicate the direction, it is pivotal that the defined goals live up to requirements of both sensemaking and productivity to maintain or strengthen the environment enacted for reasons of sensemaking. Furthermore, attention must be paid to the perception of all team members.

> **Hypothesis 9:** The virtual leader directs the enacted environment towards a state of sensemaking productivity.

Concept of virtual leadership

The most important finding of this thesis is that leaders of virtual organisations should attend to three primary roles across three analytical levels when seeking to secure performance.

As a *narrator*, the leader should tell stories that pass on guidelines, inspire and lead to productivity. As a *connector*, the leader should maintain a culture high on sociability and solidarity. As a *director*, the leader should define procedures, tasks and point towards a state of sensemaking productivity.

Adhering to this concept of virtual leadership, the problem of the research question – "how can leaders secure performance when outside immediate proximity of their employees" – is dissolved and instead nine hypotheses, elaborated in the previous paragraphs and summarised in table X, have been presented as performance-securing leadership actions in virtual organisations.

Interestingly, the problem of "lack of process control" clarified in the introduction has been proven not to be a wider dilemma in virtual organisations. Other actions and processes have appeared to replace the traditional organisational control mechanisms. Senge (1990: 292) discusses "control without controlling": *"Just because no one is "in*

Concept of virtual leadership

| The virtual leader … | | LEVEL OF ANALYSIS | | |
		Structuring level	Empowering level	Enacting level
ROLE OF LEADER	Virtual leader as **Narrator**	(H1) Tells stories that help the organisational members to adapt and thrive in the virtual organisation.	(H2) Phrases narratives openly to allow listeners to read themselves into the story.	(H3) Brings discourses to enact attentiveness to the need for productivity.
	Virtual leader as **Connector**	(H4) Supports events to ground social structures and knit the work processes together.	(H5) Stimulates communal culture to empower the team to pursue organisational goals.	(H6) Enacts the cultural setting found more beneficial to reach the outlined goals.
	Virtual leader as **Director**	(H7) Defines standards, guidelines and evaluation procedures to secure performance.	(H8) Assigns tasks to individual employees to optimise the sources of motivation.	(H9) Directs the enacted environment towards a state of sensemaking productivity.

Table 5 - Concept of virtual leadership

control" does not mean that there is no "control". In fact, all healthy organisms have processes of control. However, they are distributed processes, not concentrated in any one authoritarian decision maker". The loss of direct control over the work processes is far from fatal; instead, the narrating, connecting and directing leader exercises distributed control through the structuring of guidelines, empowerment of the team and enactment of environments.

In bringing the discussion to a broader social level, MacIntyre (1981:107) states that "*Our social order is in a very literal sense out of our, and indeed anyone's, control. No one is or could be in charge*". The lack of direct control comes not only from the settings of virtual organisations; it is a general state resulting from our social modernity. Following these lines, our concept intended for virtual leadership, may prove applicable to other genres as a general theory for leadership.

General use of concept

Our concept of virtual leadership is motivated by recognitions, experiences and conclusions drawn throughout this thesis. The following three factors were pivotal to our formation of the concept.

First, there was the need for differentiating our theoretical concept from the body of the existing literature, which we found problematic in its focus, method and consistency of argumentation.

Second, the methodological process leading us to our main actions and analytical levels (Eisenhardt, 1989; Graneheim & Lundman, 2003) provided excellent grounds for a well-structured and progressing analysis.

Third, the enfolding of literature in the discussion, in particular Czarniawska (1997, 1998), Nymark (2000), Senge (1990), Goffe & Jones (2003), Rollinson (2008), helped shape the hypotheses in synthesis with the analytical levels.

The iteration process between theory and data ended there, as we considered the potential improvements of adding further theory to have minimal value (Eisenhardt, 1989).

The contributions of our concept of virtual leadership can be of use within both the world of research and the world of practitioners.

In contributing to the research field of virtual teams, our thesis has a number of strengths. First, our concept focuses fully on the requirements set to the role of leadership for succeeding with securing the performance of a virtual team. Second, the theoretical concept is built from case studies collected as qualitative interviews with leaders of virtual organisations. Third, the theoretical concept – in its generation – disregards existing literature on the field and therefore avoids following along the same lines of argumentation and similarly does not settle for confirming or disconfirming existing theory.

As highlighted in the introduction, markets and competitive environments are changing on a global scale as a consequence of technological innovations and most organisations of today have virtual practices as an inherent part of their processes. It is our wish that the concept for virtual leadership suggested in this thesis can be read by both potential and current leaders and employees of virtual organisations to increase their understanding of preconditions as well as realise steps for improvement.

Evaluation of concept

To arrive at our concept for virtual leadership, we have leaned on Eisenhardt's appraised "Building Theories from Case Study Research" (1989). In the same article, Eisenhardt discusses how theory-building research should be evaluated and starts out by refuting that there is any generally accepted set of guidelines for the assessment of this type of research. However, she suggests several criteria intended to provide valuable reflections on theory-building research. We will base our evaluation of our concept on Eisenhardt's (1989) three criteria.

First, a strong theory-building study delivers "good theory", which is defines as parsimonious, testable and logically coherent. Given our summarising and simplifying steps in the first half of the discussion we contend to have composed a parsimonious theoretical concept. As we have produced nine hypotheses, we have enabled other

researchers to verify our theory and our concept is therefore testable. Our conceptual findings and the methodology leading us to the findings have a strong coherence and therein exists the logic of our research. In sum, our research lives up to the criteria of "good theory".

Second, evaluation of theory-building research depends on empirical issues; specifically, the strength of method and evidence grounding the theory. Here, the highly systematic approach, with which we have entered the research field, categorised our data, and built our actions and levels, suggests that we as researchers have followed a careful analytical procedure. We have provided multiple samples of our data, shown samples of our coding process and laid forward our considerations and reflections in regard to the interpretative evolution of our theory. In sum, readers of this thesis should feel comfortable that our data is valid and that our theoretical concept has a proven reliable.

Third, the final criteria suggested by Eisenhardt (1989), is that theory-building research should result in new insights. As it was accentuated by Martins (2004:821), "*researchers should focus on how leaders define roles, structure interactions, motivate effort, evaluate performance, and provide feedback in a VT context*". The content of our theoretical concept namely adds insights into these areas by shedding light on the structuring, empowering and enacting actions taking by leaders. We have shown how narrating, connecting and directing are specifically interesting for a wide range of tasks in the virtual climate – also for defining roles, structuring interactions, motivating effort and evaluating performance. Furthermore, in connecting our concept of virtual leadership to organisational theory areas such as storytelling, we have taken initiative in pointing the research field of virtual teams towards a new and still unexplored area of research. In sum, our theoretical concept lives up to the demand of providing new insights.

To conclude the evaluation of our concept of virtual leadership, we have demonstrated how our theory lives up to demands of good theory (in being parsimonious, testable and logically coherent), we have argued for assembling and digesting valid data that adds to the reliability of our concept, and we have shown that our concept qualifies as new findings in the still premature research field occupied with virtual teams.

CONCLUSION

The purpose of this chapter is to respond to the research question with justified nuances and summarise the correlation between method, theory and empirical data.

The main finding of this thesis is that the demanding challenges experienced by virtual leaders – that spatial distance and the intensified use of information and communication technology leads to lack of interpersonal immediacy and lack of control over the work processes – can be met by carrying out actions in accordance with three roles especially fit for leading virtual teams: Narrating, connecting and directing.

As a *narrator*, the leader should tell stories that pass on guidelines, inspire and lead to productivity. As a *connector*, the leader should maintain a culture high on sociability and solidarity. As a *director*, the leader should define procedures, tasks and point towards a state of sensemaking productivity.

The three virtual leadership roles intersect with the analytical levels of structuring, empowering and enacting, whose underlying actions represent the categorised findings of our empirical data. The synthesis between the interpretative, normative roles and the levels resulting from structuring the actions enabled us to shape nine hypotheses:

(H1)   The virtual leader tells stories that help the organisational members to adapt and thrive in the virtual organisation.

(H2)   The virtual leader phrases narratives openly to allow listeners to read themselves into the story.

(H3)   The virtual leader brings discourses to enact attentiveness to the need for productivity.

(H4)   The virtual leader supports events to ground social structures and knit the work processes together.

(H5)   The virtual leader stimulates communal culture to empower the team to pursue organisational goals.

(H6)   The virtual leader enacts the cultural setting found more beneficial to reach the outlined goals.

(H7)   The virtual leader defines standards, guidelines and evaluation procedures to secure performance.

(H8)   The virtual leader assigns tasks to individual employees to optimise the sources of motivation.

(H9)   The virtual leader directs the enacted environment towards a state of sensemaking productivity.

In basing the hypotheses on the synthesis between theory resulting from the case studies and theory resulting from our interpretative reflection in the discussion, we have been able to pull interesting nuances out of the empirical data. The hypotheses reflect most importantly the data we collected when conducting qualitative interviews with key informants from the six case companies – 37signals, Joost, Polycom, Storyplanet, Wildbit and Workstreamer – but also implicitly or explicitly maintains cues from Mintzberg, Andersen, Weick, Czarniawska, Nymark, Senge, Goffe & Jones and Rollinson. Through literature-enfolding exercises prescribed by Eisenhardt (1989), these theories and theorists have strengthened the foundation of our final saturated hypotheses.

The thesis contributes to the research field of virtual teams by decidedly focusing on providing new insights to the role of leadership, including the importance of narratives and greater understanding of interpersonal processes, by building the theoretical concept from case studies, and by avoiding to settle on confirming or disconfirming existing theory. The contribution to those exercising virtual leadership is predominantly that this thesis incorporates recent developments in markets and technologies, and thereby provides an up-to-date conceptual framework of the requirements to modern virtual leaders.

The findings of this thesis lives up to demands of reliability. In being parsimonious, testable and logically coherent, the theoretical concept resulting from this thesis can be verified as good theory. Furthermore, the fit between the theory and the data that leads to the theory is displayed in great detail throughout the thesis and proves a close coherence. Finally, that the thesis is able to spur new insights confirms that the originality of our approach has led us to value to the research field studying virtual teams.

In conclusion, present leaders will meet major challenges as a consequence of shifts in markets and competitive conditions affecting their organisations. The concept of virtual leadership developed during this thesis holds promise for meeting those challenges and securing high performance of virtual teams.

LIMITATIONS AND FURTHER RESEARCH

In this chapter, we will highlight the limitations of our research findings and thereby lay forward recommendations for further research on leadership of virtual organisations.

In presenting the limitations and points for further research, we will distinct between empirical, theoretical and analytical limitations.

The empirical limitations hold four elements that deserve greater research from different angles.

First, we have in our research been limited in our ability confirm or disconfirm our hypotheses ourselves due to the method chosen and the limits to the content. Observations of consequences of putting our hypotheses into effect would have been valuable for affirming our theoretical concept.

Second, in focusing narrowly and decidedly on the executers of virtual leadership, we have neglected those that act as "targets" for virtual leaders: employees in virtual organisations. If further research chooses to conduct interviews with employees in virtual organisations based on the hypotheses of this thesis, it would provide an understanding of how the concept would be received in a larger sense.

Third, despite interviewing leaders of larger virtual organisations, we have kept a micro-perspective. Further research should seek to assemble ore grand framing of the organisational challenges.

Assembling empirical data from industries that traditionally are known to be less technically skilled and minded, and study the progress of virtual leadership, could harness an interesting discussion.

Limitations for the theory cover particularly two areas.

First, theories in this thesis were chosen to strengthen our concept. Different theoretical perspectives could have proven helpful for furthering the understanding of virtual leadership.

Second, this structure and method of this thesis did not allow for a greater pursuit of the extent to which narrative strategies dominate the role of leadership.

The thesis has also been exposed to a set of analytical limitations.

First, the chosen theories are not arguing between one another, as we chose to let the empirical data steer the temperament of the analysis and use theory to build coherence to our own theoretical concept. Unfolding the theories more in the analysis could prove beneficial for further research.

Second, there has been a prioritisation of some degree of width in the analysis rather

than completing an in-depth analysis of a single organisation. For future research, a more detailed research that follows its case over a larger period of time could prove interesting.

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APPENDICES

List of appendices

APPENDIX A – Overview of interviews

Name	Title	Company	Setting
Camilla Bottke	Marketing Manager	Polycom	Virtual via Skype
Sten Dyrmose	CEO	Polycom	Virtual via Skype
David Heinemeier Hansson	Partner	37signals	Virtual via Skype
Bjarke Myrthu	CEO and founder	Storyplanet	Face-to-face in New York
Chris Nagele	CEO and founder	Wildbit	Virtual via Skype
Ben Schippers	CEO and founder	Workstreamer	Virtual via Skype
Henrik Werdelin	Chief Creative Officer	Joost	Virtual via Skype

APPENDIX B – Example of interview guide

GENERAL INTRODUCTION	Project * Fact: Technological innovation --> New types of organizing * Interest: Watching trend + Own experiences + Puzzling * Inst.: CBS / MScSoc(CBP) - Thesis "Virtual organizing" * Challenges: Interpersonal --> What is leadership in this context? Companies * Storyplanet * 37signals * Wildbit * Lullabot * Polycom * Workstreamer * Joost
PERSONAL PROFILE ENTREPRENEURSHIP	* Background (edu./work) * Story about the founding * Where does the drive to create new projects / companies come from?
COMPANY PROFILE	* Product/service * Market (incl. competition) – customers * Strategy
ORGANISATION	* Structure for the organising * Ownership of the company * Legal setup in relation to employees * Employee profiles (backgrounds, motivations, goals)
LEADERSHIP	* Describe your role as leader in Wildbit * Who makes the decsions about the company's overall direction? How? * How is general development of specific employees ensured? * Which competencies should an employee have to success in virtual organizing?
INFORMATION, COMMUNICATION, TECHNOLOGY	* How is the communication between the team? * What tools are used? When? * In which cases are virtual tools abolished and a face-to-face meeting arranged? * How is the communication between the company and the customer typically? Project Management * Tell us about a project in which the team subsequently considered it a successful experience. * Tell then about a project that has been experienced as unsuccessful.
STRATEGY	* How should the company expand in the future? * How far can virtual organization bring a company like Wildbit? * How would you advise other "virtual leaders"? * What property does a virtual leader need?
FOLLOW-UP	* Relevant documents * Follow-mail

APPENDIX C – Sample of second coding round

Meaning unit	Condensed meaning unit (close to text)	Condense meaning unit (interpretation)	Sub theme	Theme
I think for me what is critical is organization and priority. Constant priority. Constant battles with everyone about what is actually important. What is actually going to get us funded. I constantly make roadmaps. I constantly revise those roadmaps. And I am constantly asking myself "if we are trying to get another round of … if we are out of money in July and we want to raise $2 million, what do we need to show in a very short period of time that is going to make the investors feel comfortable about giving us $2 million?" (BS, 4)	Constant priority on moving forward - including lots of battles with everyone. Product development very much based on completing the next round of finance.	Internal clashes in the team to continue progressing	Product development leading to clashes	Production
I would say that it is fairly democratic. There is three of us that generally make decisions. I usually make decisions as they relate to the product, so I have a usability roadmap, a hardcore product roadmap and I vocalize exactly what we are working on on a regular basis and I say "guys, this is what we are building, this is what we are building, this is what we are building". If there is no push-back, great. If there is push-back, then I have that battle. And I essentially say "yes, I am willing to listen to you" or "no, I am not willing to taking your input at this time" or "yes, I am willing to take in your input at this time, because you are talking to the customers and this is what the customers are saying and at the end of the day we should be building what the customers want", so there is a balance there, but at the end of the day, I am usually the one making the call regarding the product. (BS, 5)	A fairly democratic decision-making process. Three people making decisions and BS the one deciding for the product. BS is the clear leader here communicating with everyone in the team - being willing to listen to the team, but also aware of keeping the customers as the most important parameter. At the end of the day, BS is usually the one making the call.	The product leader does not entrust final decisions to the team	Leader making final decisions	Decision-making

APPENDIX D – Images from second coding process