Computer Science
Andreas Pfneisl Organization and Management of Virtual Teams
Diploma Thesis

Examecus

YOUR KNOWLEDGE HAS VALUE



- We will publish your bachelor's and master's thesis, essays and papers
- Your own eBook and book sold worldwide in all relevant shops
- Earn money with each sale

Upload your text at www.GRIN.com and publish for free



To my brothers

Stephan in honor of his high school graduation

and

Christian

Acknowledgements

It is not easy to write a high-quality master's thesis (which was my intention right from the start). It takes time. At the beginning, you are full of energy, enthusiastic, curious. But then, after a while, when you read parts of the thesis the 10th time, when you listen to the interviews you made again and again, write them down, summarize them – then it is not that fun any longer. But I guess that's how it has to be – sometimes you're up, sometimes you're down.

And at the end you can look proudly at your thesis – hopefully – like I do now.

All this wouldn't have been possible without the help of a lot of people. I want to thank those people now.

First of all, my parents Anton and Marianne. Of course for financing my studies and education. But what is much more important for me, for creating such a warm, secure and stable environment – the family I am living in the last 22 years. I could write a whole book now about my family, but a master's thesis is not the scope for that, of course. So I confine myself to five words: Thank you very, very much.

To stick to my family, I want to thank my older brother Christian and my younger brother Stephan for being what they are: simply great, understanding and caring siblings.

Then I want to say thank you to my uncle Robert and aunt Elfriede (my godfather and

Then I want to say thank you to my uncle Robert and aunt Elfriede (my godfather and godmother), who supported me whenever they could and leaded me through my life with god (as my parents, my grandparents and a lot of other people did). Thank you.

Thank you to my friend Dibbo Khan for doing the arduous work of reading and correcting the thesis. Thank you for the great time we spent together in Stockholm.

Thank you to all who helped me writing this thesis, including

Birgit Waldner, my supervisor
Roland Pauer
Alex Wesendorfer
Henry Cory
Ingemar Fernius
László Huszár
Donatus Schmid
Christof Schwarz
The Jack-In Club, where I found so many friends

Vienna, July 2000 Andreas Pfneisl

July 2000 iii

List of Illustrations

Figure 1-1: Collocated to Virtual Distance	4
Figure 1-2:Ages of Organization	5
Figure 1-3: Four Ages of Small Groups	6
Figure 1-4: Competition conditions and organizational strategies	7
Figure 2-1: Group vs. Team	10
Figure 2-2: Varieties of Teams	11
Figure 2-3: Communication links of global teams	12
Figure 2-4: Types of global teams	13
Figure 2-5: Different Teams	15
Figure 2-6: The Flow of Purpose	17
Figure 3-1: Building Trust - Collocated vs. Virtual Teams	29
Figure 4-1: Communication Media Palette	35
Figure 4-2: Time/Place-Matrix	37
Figure 4-3: EmotIcons	39
Figure 4-4: Simplyfied classification of cooperation material	41
Figure 5-1: Differentiation of SOHOs to micro companies and home-based households	47
Figure 5-2: Emergence of SOHOs	48
Figure 5-3: Development of SOHOs	49

Preface

The Idea

The idea to write my master's thesis on "Organization and Management of Virtual Teams" arose during the 6th term of my studies, which was an exceptional term in many ways.

I was part of several teams then, which is nothing extraordinary, I guess. What made those teams special were the people I was working with – or better – I got the possibility to work with

I had worked in teams before in the course of my studies and had had some really bad experience with lazy and unproductive people, who simply couldn't or did not want to identify with tasks and goals of various projects.

What was so special with those teams in the summer term of 1999 was, that most of the team members could identify with the goals set, they worked, they tried really hard to stick to deadlines and targets, they took justified criticism as positive feedback, they were punctual, they communicated and so on – in short: I was part of some very, very productive, purposeful teams (one of the results was that I did my most successful term that term – the work of nearly two terms during this one).

Well, two seminars during this spring were dealing with the topic "Virtual teams" and I got really interested in. So I decided to do my master's thesis on this subject. I found a nice and easy going supervisor who was interested in the topic, as well, and I started to write on the thesis at the end of my stay in Stockholm, Sweden, as an ERASMUS exchange student.

But why this topic, why a thesis on virtual teams? Several reasons should be mentioned:

My interest in the topic: Since I am studying "Wirtschaftsinformatik" (Economical Computer Science, a mixture between economics and computer science), I am interested in both economics and technology. What topic suits that combination better than "Virtual Teams", which have to work for economic reasons across distances and organizational borders – all this with the help of the latest technology.

The challenge: Not a lot was written about the subject "Virtual Teams" when I started to look for literature suitable for my thesis. I hardly could find books in Sweden and the ones I finally chose I had to order from the US (which is also a reason why this thesis is written in English, because all the literature I used was written in English). So it was quite a challenge (but exciting) to write about something new.

Furthermore, as I did part of the thesis in Sweden and the other part in Austria, I had the opportunity to do interviews with people from both countries, which - I think – adds some additional value to this thesis.

July 2000 v

Relevance to the present situation: Global operating companies, teamwork, trust in teams, Information Technology – these are just a few catchwords in today and tomorrows newspapers and business magazines. Never before has the need to work on an international level using teamwork to get the most out of your employees in combination with Information Technology to satisfy the demands of communication been bigger than today. And that's what "Virtual Teams" are associated with: efficiency, high performance, communication.

The Thesis at one Glance

The thesis is divided into two parts. *Part one* summarizes the most important points from several sources on

What are Virtual Teams and what are they good for: Here, the why and what of virtual teams is described. What is a virtual team, what are the reasons for the development of this organizational form and what is it good for.

Organization and Management of Virtual Teams: Differences to collocated teams, the importance of having a vision and goals, leadership, roles and team size is explained in this section.

Trust: The basic requirement of virtual teams is having trusting relationships between team members. How to build trust and what can destroy it is shown in these chapters.

Communication and Collaboration: Don't expect some technical details about Information Technology here. This part mainly deals with the appropriate use of different media – when to use what and how.

SOHO – Small Office / Home Office: A brief insight into this quite new form of collaboration between small companies.

In *part two*, the results of six interviews with people who are experienced in working with virtual teams are summarized and conclusions are drawn.

If like to read some entertaining stories about the daily up and down in virtual teams start reading part two first. You will get a lot of useful information wrapped into stories about personal experience of various people.

If you are the I-just-like-the-hard-facts type person, start with part one.

Enjoy!

July 2000 vi

Contents

PART ONE - THE THEORY	1
1 INTRODUCTION	2
1.1 Just Some Concepts	
1.2 Why Virtual Teams?	2
1.2.1 And The Definition Of "Virtual Team" Is?	
1.2.2 Close Is Really Close	
1.2.3 Four Ages Of Small Groups	
1.2.4 Market Insecurity And Product Complexity	
1.3 Benefits / Barriers Of Virtual Teams	8
2 ORGANIZATION AND MANAGEMENT OF VIRT	UAL TEAMS 9
2.1 Groups And Teams	
2.1.1 What Makes A Team Virtual?	10
2.2 Distinguishing Virtual Teams From "Other" Teams	14
2.3 The Importance Of Vision/Mission/Goal	
2.3.1 All In One - Purpose	16
2.4 Team Size, Roles And Leadership	
2.4.1 Team Size	
2.4.2 Roles	
2.4.3 Singular Or Shared Leadership	
2.4.3.1 Social And Task Leadership	
2.4.4 Locomotion And Cohesion	
2.4.4.1 How To Support Cohesion	23
3 TRUST	24
3.1 Why Is Trust That Important?	24
o.i wily is trust that important:	<u> </u>
3.2 B ³ - Builders, Busters And Benefits Of Trust	24
3.2.1 How To Build Trust	
3.2.2 Collocated vs. Virtual Teams – A Comparison Buildin	ng Trust29
3.2.3 Enemies Of Trust – How To Defeat Them	29
4 COMMUNICATION AND COLLABORATION	33
4.1 Benefits And Challenges Of Technology Supported T	eamwork33
4.2 When What How	34

	.2.1 "The Medium Is The Message"	
	.2.2 One, Many And FEW	
	.2.3 Digital Media Is Different	
4.	.2.4 When To Use What And How	37
4.3	Social Issues	30
	.3.1 Face-2-Face Communication	
٦.	4.3.1.1 Eye Contact And Gaze, Gestures And Body Language	
1	.3.2 Text-Based Communication	
٦.	4.3.2.1 Pace And Granularity	
	4.0.2.1 Tuoc / tild Grandlarity	
4.4	Common Material	40
4.5	Practical Issues	
4.	.5.1 Online Etiquette	42
5	SOHO - SMALL OFFICE / HOME OFFICE	47
		=-
PA	ART TWO - CASE STUDIES	50
6	COMPANY A	52
U	Oom Att A	
_		
7	COMPANY B	57
8	COMPANY C	60
_		
_	OOMBANN B	0.4
9	COMPANY D	64
10	COMPANY E	70
	COMPANY F	7.4
11	COMPANY F	/4
12	CONCLUSION	78
42	AND THE FUTURE?	0.4
13	AND ITE FUIUKE!	81
REF	FERENCES	82
٨٥٥	PENDIX A FEHLER! TEXTMARKE NICH	T DECIMIEDT 6

Part One The Theory