



Globally Dispersed Team Management

Research Based on Interviewing Experts in Virtual Project Management

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ABSTRACT

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The main objective of this thesis was to identify which virtual project management strategies and professional techniques are the most effective for running successful dispersed teams.

The purpose of the thesis was to gather practical information from the most successful virtual project managers of the world as well as the experts working in virtual organizations to research the crucial aspects of their virtual activities, professional management strategies, and the ways to overcome the obstacles of virtual projects' leadership.

The main idea is to prove virtual employment to be a future of jobs. It was essential to demonstrate that the most obstacles of distance work can be overcome with the help of an advanced project management, and the benefits virtual projects provide are worth an effort. Thus, the aim of writing this work is to illustrate that this innovative field of project management should not be longer ignored as it already exists for more than 20 years in the market. Virtual Project Management should be taught in universities as a separate unit of Master's Programmes, because it includes very specific techniques and concepts of remote leadership which are going to be discovered later in this work.

Thus, apart from emphasizing numerous benefits of virtual projects, the following key topics of virtual management are going to be researched in-depth: Virtual Collaboration Management, Trust and Relationship Building, Setting Productive Virtual Communication, Social and Professional Isolation Management, Conflict and Cultural Differences Management, Logistics and Time Zones Management, Virtual Motivation and Creativity Management, the Control over Technological Difficulties, Virtual Collaborative Platform Administration, Virtual Work-Life Balance, Virtual Recruitment Process, Face-to-face Communication Management and many more individual approaches and professional advice from the most successful remote project managers of the world.

Secondary research, predominantly based on world history and virtual project management literature review and the data of statistical research, was conducted to create the theoretical framework of this paper. It was partly used for an analysis of practical findings of the empirical part of the thesis.

Primary research was conducted in two forms in order to provide rich information and impactful quotes for the work. Fourteen experts in virtual project management were interviewed to get qualitative data and Virtual Project Management Online Questionnaire was run to provide quantitative results.

The theoretical framework includes numerous concepts related to virtual leadership strategy as well as the benefits and challenges of incorporating virtual projects within international companies. The practical findings were designed to be potentially usable for virtual project managers around the world.

Key words: virtual project management, dispersed team, virtual activity

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1 INTRODUCTION

1.1 Background of the Research Problem

In our Knowledge Era more and more people find it easier, more convenient and productive to work virtually rather than staying traditionally employed in stuffy offices, being under the pressure, stress and obeying company's regulations. With the help of modern technology employees massively join online teams, global virtual organizations, online living labs, international virtual project. Nowadays a large number of knowledge workers need only their laptops and a cosy study room with an unlimited supply of tea to make their profit. Thus, Virtual Teams have transformed the workplace and become an increasingly common alternative to the traditional work group in almost all the industries. Telecommuting is a growing trend for both employees and employers. Since the middle 1990s, it has increased in popularity and is now well known among the masses. With the availability of so many jobs, it has become an easy way to make money while reducing some of the other costs associated with work. According to the statistical data approximately 40 per cent of workers in the European Union want to work from home. This trend shows that telecommuting is a global phenomenon (Orser, 2014).

1.2 Research Objective

The main objective of the research is to answer the research question:

“Which virtual project management strategies and professional techniques are the most effective for running a successful dispersed team?”

The answer on this question is going to potentially help virtual project managers to lead remotely as in this thesis they share their knowledge and experience. Exchanging new ideas and information, learning from each other would benefit both team-leaders and team-members through trying innovations and giving them a chance.

1.3 Research Scope

For the purpose of this thesis, the theoretical framework is designed to define a virtual team concept, the main benefits and challenges of managing dispersed projects. The

thesis does not cover the experience of running any specific virtual project. It focuses on collecting opinions, knowledge and expertise of international experts from around the world to find fresh ideas on how to deal with such virtual challenges as maintaining daily working interaction and profitable trustworthy relationships within the team.

2 RESEARCH METHODOLOGY

2.1 Data Collection

The qualitative research method was chosen to gather an in-depth understanding of practical advantages of managing a virtual team, being a part of it or sponsoring a virtual project. Interviewing experts allowed to use an individual approach to every participant, which would be missed with online survey. All the questions were prepared specially for every professional based on the preliminary research of their biographies, virtual management experiences, and current virtual project.

Each interview was limited to a maximum of an hour, the majority of conversations was run via audio conferences, some of them were conducted through emails (due to an interviewee's request) and during face to face meetings. From 15 to 20 open-ended interview questions were prepared in a semi-structured format that led to a natural flow of conversation. Due to time constraints, approximately from 10 to 15 questions were asked in each interview. Virtual managers answered questions about numerous topics: virtual collaboration, online communication tools, conflict and misunderstanding management, trust building, accountability, cultural diversity, social and professional isolation, virtual creativity, time management, work-life balance, the lack of face-to-face, virtual motivation, virtual recruitment process, technological difficulties, and so on.

The quantitative research method was chosen in order to support experts' opinions with more specific facts and figures. The Virtual Team Management Questionnaire was run not only among project managers, but also virtual team-members to get the points of view from both perspectives. Most interviewed experts were also asked to complete the survey so that afterwards the interview questions are formed in a more specific manner.

Thus, virtual team-members also shared their experiences, highlighting specific challenges regarding thesis research topics.

2.2 Data Analysis

The questions of interviews were classified according to different fields of virtual project management. All the replies were categorised and incorporated into the content of a

practical part of a thesis. Thus, all the concepts and working life situations become arguments for the theoretical framework.

The survey replies were transformed into statistical data and used to support or disprove experts' arguments. Cold statistics was essential for a practical analysis presented in this paper.

3 THEORETICAL FRAMEWORK/LITERATURE REVIEW

3.1 Knowledge Economy

Over 10, 000 years ago humanity has progressed from the Stone Age to the Agrarian Age and from Hunting-Gathering Economy to an Agrarian economy respectively. Agrarian economy was based on producing and maintaining crops and farmland, thus land was the main economic resource of wealth. Agrarian society was basically divided into two classes: landlords and land workers. The Economy was changed with the Industrial Revolution, which occurred in 1760 in Great Britain and later in other societies. Wealth no longer was generated just with agriculture. Technological progress led to manufacturing as a new key resource of Industrial Economy. This fertile environment created extraordinary business opportunities for entrepreneurs with vision and fortitude. The new category of wealthy people: self-made business owners (Wickramasinghe, 2009).

However, technology did not stop its development and already in the end of 20th Century Internet and World Wide Web together with Globalization phenomenon changed not only the way people did business, but also the lifestyle of humanity as a whole. That was the birth of Information Age and Knowledge Economy, where crucial sources of wealth are knowledge and information. Knowledge is now recognized as an intangible asset, an intellectual capital and a driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance. Advanced information technologies allowed business to change its form, and nowadays having laptop is simply enough for making millions in virtual environments. Industrial era is steadily coming to its end. More and more people prefer self-employment and freelancing to a career in any corporation. In their turn, organizations try to follow the trend implementing virtual teams and hiring professionals globally and virtually. Knowledge worker is becoming a new economic resource (Gignac, 2005).

3.2 Knowledge Worker

Cambridge Business English Dictionary defines knowledge worker as an employee whose job involves developing and using knowledge rather than producing goods or services. Advanced economies are service-based, with labour markets split between highly skilled knowledge workers and low-skilled service workers (Combley, 2011). In

practice, knowledge workers included professionals, such as lawyers, engineers, bankers, teachers, doctors, analysts, etc. Education has become one of the main achievements as a way to gain this knowledge for future trade. Knowledge worker does not stop learning in order to upgrade her/his labour market price and professionalism, thus, they consider themselves more as important business contributors and partners rather than just employees. This self-confidence as well as constant self-development contributes to a high level of independence. Another noticeable feature of knowledge worker is making connections and partnerships. This allows one individuals with leadership and entrepreneurship talents to open their own successful businesses. Others choose freedom of movement and become remote knowledge workers with the help of technologies as an integral part of their work and an essential tool for the accomplishment of a large number of their tasks.

Organizations have changed their treatment towards employees. Workers are continuously educated and trained, guided and valued. Employers compete to get the most professional knowledge workers not to let competitors to get these important assets. As informational technology makes distance imperceptible, global companies open opportunities for international virtual projects in order to access wider pool of talent from abroad. Under the influence of globalization trend, an absolutely new form of business, virtual organization has appeared.

3.3 Global Virtual Team Concept

3.3.1 Definition

The virtual team is defined as a group of knowledge workers who are geographically dispersed but not necessary distributed across expansive geographic locations. Team-members are working together driven with a common goal, using electronic communication as their primary tool. The virtual team might experience some face-to-face contact or members can never meet each other in real life. Thus, virtual project management faces absolutely new challenges, as building teamwork, trust and motivation among team-members in a virtual reality (Gignac, 2005).

3.3.2 Six Types of Virtual Teams

In their guide for distance managers Kimball and Mareen Fisher define the type of virtual team focusing on three criteria: time, space and culture (Fisher, 2000). Figure 1 summarises the concept of virtual teams.

Team Type	Same Time	Same Space	Same Culture
1	-	✓	-
2	-	-	-
3	✓	-	-
4	-	✓	✓
5	-	-	✓
6	✓	-	✓

Figure 1. Six Types of Virtual Teams

Type 1 team might represent a customer service team, manufacturing operation or warehousing team that has multiple shifts working with the same equipment. For example, a service team that answers client calls about a product 24 hours a day, in shifts, from the same phone banks. The only difference between Type 1 and 4 teams is that

Type 4 could be the same operation but it would have much more homogeneous culture. Dissimilar to alternate teams, Type 1 and 4 ones can communicate through basic tools like blackboards and posted charts that are placed in the same room and that can be updated by each shift as they leave. A large number of these virtual teams can use shift overlap meetings for face-to-face interaction.

A Type 2 team might be a virtual project team, operating globally, large corporation, or international product development team. A Type 5 team would have a rather similar form with a more homogeneous culture. Type 2 and 5 teams are the most challenging to manage because they do not share both time and location. Thus, the teams have to get used to using asynchronous, distributed technologies like e-mail, electronic whiteboards, voice mail, as well as limited synchronous tools such as tele- and video- conferencing.

As an example, a Type 3 team might be a local sale or service team, or a regional consulting firm. A Type 6 team would be the same type of team with a more homogeneous culture. These teams have the benefit of synchronous schedules and time zones and can be hooked together electronically in real time through technology. However, face to face communication is more difficult as the team members are normally working at different locations.

Teams with heterogeneous cultures require special treatment to generate ethics for productive joint work, especially if virtual manager leads a dysfunctional homogeneous team; the change process often requires extreme measures to modify group norms that have come to be accepted over time (Fisher, 2013).

3.4 Benefits of a Virtual Team

Volvo: A study by the Corporate Executive Board found that Volvo decreased their travel costs by 50% by implementing virtual teams. In addition, 75% of workers believed they increased their value to the company by using virtual teams.

British Telecom: Claims that their 9,000-plus home workers are 20 % more productive than their office-based colleagues and spend less time off sick.

A study by **the Institute for Corporate Productivity** found that 80% of companies surveyed with over 10,000 employees believe that virtual teams will become very important for businesses (Jury, 2011).

3.4.1 Information Sharing

Sharing knowledge and experience as well as productive cooperation between company's workers is one of the main priorities of any organization despite its virtual or real life form. This idea is very relevant for virtual teams as well, but sharing information is done mainly via electronic communication media. Thus, the availability of necessary technology in workplace enables efficient communication and collaboration between team members. Technological aspect of virtual team management is extremely important, however, this work does not focus on this issue in particular.

Knowledge management has become another aspect for a virtual project manager to focus about, as it is important to make sure team members develop, learning from each other's expertise. Knowledge-sharing opportunities may be as various as informal open discussion forums and more formal collaboration, such as interactive meeting for a specific problem solving. The role of project manager is to encourage expertise sharing, make team members comfortable to ask for help or an advice from each other. By helping colleagues to find the way out of situations team members share their knowledge, which eventually makes everybody to better off.

3.4.2 24/7 Workforce and an Access to Multiple Markets

Despite the fact that different locations and time zones seem to obstruct normal collaboration between team members, a large number of professional virtual managers are sure that it creates an opportunity for the organizations to provide solution and act as quickly to market demand fluctuations as needed (Edwards, 2004). Thus, virtual teams can be online 24 hours per day: since members are located in different time zones, they can simply shift each other so that the whole team works non-stop as a homogeneous mechanism. That gives the team a great advantage to react to market changes immediately at any time of the day. This benefit has a very strong coherence with the access to global markets. You can hire sales people in multiple locations, without the cost of opening and maintaining an office. This gives you the ability to access a new market without significant costs (Rawson, 2013). This aspect could be highly valued in foreign exchange market.

Of course, it requires some effort from both sides of virtual time zones by passing the work progress from one zone to another, if it is the case, but more often, 24/7 workforce is used more wisely and workers from different time zones have separate tasks they are

supposed to complete and pass to another time zone worker to keep progressing. This is a continuous chain of project development. 24/7 workforce projects obviously take less time to complete.

3.4.3 Cost and Time Saving

Some global international corporations save millions of dollars per year by implementing virtual teams. There is a significant reduction in transportation costs, commuting, and paying an office rent. Obviously, a large number of these cost savings are related to the employee, this makes the position even more attractive.

As it was mentioned earlier, virtual teams give employees the luxury of flexibility; commuting is eliminated, employees are subjected to lower stress levels and take fewer sick days and as a consequence, less illness allowances are paid off, which results in increased productivity. Thus, having a team whose members are located across several time zones effectively expands the working day from eight hours to twelve hours, even twenty-four in some cases. Virtual projects can be accomplished in a shorter period by utilizing more hours in the day. Fewer unnecessary meetings usually lead to a higher productivity.

Technology used within the team saves time and travel costs when team members from different locations can meet together electronically and communicate quickly, depending on the team's needs. With energy costs steadily increasing and air travel becoming more problematic, virtual conferences without massive employees' travelling more often appears to be a practical and cost effective option.

3.4.4 Access to a Wider Pool of Talent

Geographically challenged companies are boxed in by a major limitation when it comes to hiring new talent. One of the main benefits of the virtual team is the ability to employ best professionals for the job. The pool of accessible talent is no longer limited to one city or town. Unlimited geographical area empowers a virtual team to hire most talented and experienced workers from around the world. The pool of skilled individuals can be assembled to expand productivity and efficiency of the business project.

At the same time, hiring highly professional employee for a senior position would lead to high removal costs, taking into account additional compensation for moving the family of an employee. While a large number of potential skilled workers might be agree to move elsewhere for a better workplace, their spouses and children are not ready to change the environment. Thus, virtual work and virtual project management might be the best way out of the situation for both worker and organization. Virtual teams exclude all these challenges; suddenly, the available talent pool is nationwide or even worldwide (Deloitte Development LLC, 2011).

3.4.5 Space and Comfort: The Ideal Office

The home of most workers has already included a study, home office or just a perfect workplace matching individual needs of an owner. In our Informational Age everybody has got a laptop as well as an Internet connection. In an increasing number of industries, these conditions are enough for a productive work.

According to a report from The Telework Coalition, businesses can save an average of \$20,000 per year for each employee who works remotely; while geographically limited companies always tend to change office space as they grow (Cramer, 2011). Just like Google Inc., they are trying their best to make working environment as modern and youth as possible to attract top talent. They are filling their offices with snacks, drinks, designed furniture, etc. However, in reality it distracts employees and lead to a low productivity. Basically, companies are trying to make the office feel more like home, so why do not they use employees' real homes as offices?

Thus, virtual team can offer the one comfort and space that everyone truly wants to work in. And this is the space of every worker's very own home. Moreover, a member of a distributed team can always engage in co-working, a coffee shop, or work at his/her friend's office for a bit. Members of a distributed virtual team will always have the opportunity to create a work environment that is more flexible and comfortable for each member of the team in comparison with traditional office workers.

3.4.6 Family Friendliness

Virtual projects and dispersed teams provide an opportunity of building family friendly working environment for employees. Distributed team-members tend to spend more time with their families and plan their working hours, taking into account their spouses'

and kids' personal needs. This is a very important aspect, which comes along with flexibility of a workplace and employees' independency. Of course, there are organizations, which require their virtual workers to be online for a certain quantity of hours per working day. However, most of organizations are more or less flexible on this issue and that is why virtual employees have got an opportunity to allocate their time in a family friendly way.

3.4.7 Saving Environment

Undoubtedly, protecting the environment is not the main reason why employees prefer working from home or employers maintain telecommuting, but nonetheless telecommuting, or distance work, can play a key role in saving the environment: saving energy and reducing fuel consumption and pollution.

From the corporate point of view, allowing employees to work at home helps companies fulfil their corporate social responsibility (CSR) standards.

Virtual work saves the environment reducing the amount of all kinds of transport users, which cuts back on:

- air pollution from toxic gases and dust particles
- water pollution from chemicals spilled into our waterways, rivers, and other water sources
- oil consumption (Pinola, 2015)

For example, the research conducted by TIAX LLC stated that around 3.9 million Americans work from home at least once a week. This leads to decreased gasoline consumption by some 840 million gallons or equivalent to taking 2 million cars off the road yearly. One day of telecommuting would be equal to saving 12 hours of electricity use of an average household. This statistical information clearly proves the environmental benefits of distance work (Kumar, 2011).

3.4.8 Increased Productivity

The office spaces of geographically challenged companies, by nature, provide every office-worker with the big red interruption button at his/her desk, inviting anyone who may feel the urge to stop by and press it, thereby pausing or derailing worker's produc-

tivity. A recent study by Workplace Options even reveals that a large number of workers are coming in early or staying late just to get some distraction free work time. Thus, over one half of all workers feel that their productivity is negatively influenced with distractions in the workplace.

Despite the kind of office environment has been crafted, distributed teams will always have the advantage in the possibility of creating an interruption free work environment. Each employee is in total control of his/her surroundings and can completely block out distractions and interruptions. A distributed virtual team consisting of self-lead, motivated, and disciplined individuals will always have the opportunity to work in a less distracting environment (Cramer, 2011).

Thus, employees from the younger generations of workers: Generation X and Generation Y, in particular, find virtual work a tremendous benefit. Virtual teams and organizations offer flexibility, and the comfort of being able to work independently without following any corporate rules, such as a dress code and traditional work hours.

Telecommuting is appealing to some workers because it prevents the often unnecessary and unwelcome interruptions by colleagues and managers that can decrease productivity and attentiveness (Mayhew, 2015).

3.5 Challenges of a Virtual team

Despite the wide range of benefits provided with distance work, telecommuting still stays an innovative and challenging style of employment. This chapter will take a close look at the evidence the challenges of virtual team members and managers threaten to outweigh the benefits.

3.5.1 The Communication Challenge

Communication is an essential factor for virtual team effectiveness. Virtual managers face are first who face the difficulty of communication channels, rules and ethics that have to be worked out and accepted within the team. Leaders must manage communication fostering cohesion, ensure that team members get the productivity of constant inter-

action and sharing experience, take any opportunities to enhance a sense of belonging, and maintain the supportive environment. Poor communication leads to a large number of problems, such as lacked motivation and social isolation, untrusted relationships between team-members and conflicts based on misunderstanding. The main difficulty that bothers most managers and employees who are just starting to work remotely is the lack of face-to-face meetings and absolutely virtual communication via modern informational technology. The fact that employees have to do a pure work without wasting time on office distractions shocks and positively impacts worker's habits and time management skills. In their turn, virtual project managers learn how to monitor team-members only through electronic means of communication.

3.5.2 Lack of Everyday Non-Verbal, Face To Face Communication and Social Interaction

Despite all its pros, telecommuting can be exhausting. Virtual teams work in a communication technology-mediated environment, which allows face-to-face meetings only to a limited extent, for example, through video-conferences. Team members miss the office banter, the working friendships, having lunch with co-workers and that relaxing socialization that get them through tough Mondays. The lack of both nonverbal and verbal communication does impact most of extrovert workers, which may lead to a social isolation and depression. Not every organisation can afford arranging frequent face-to-face meetings for their remote employees that is why it is difficult for virtual team members to see how their own work fits into the big picture, so they become despondent and demotivated.

Verbal communication conveys just a small part of the meaning, while nonverbal communication is often underestimated. Co-workers interact by actions such as posture, waving, facial expressions, body language, as well as tone, voice emphasis, pauses, and all the factors that make communication a complex social process. Managers are deprived of nonverbal cues and facial expressions that indicate employees' mood and spirit. Leaders who usually apply psychology to their management style, get professionally lost due to this virtual 'blindness'.

Therefore, workers tend to find other ways to express what in real life they express non-verbally. For example, common solutions are emoticons in electronic messages, being

careful in wording messages to decrease the risk of misunderstandings, paying attention to the speed with which a response was sent, and so on. As a rule, people become highly sensitive and attentive to details (Stasi, 2013).

Thus, virtual teams lack the informal, everyday conversations and small talks that co-located employees take for granted. Virtual employees might spend days without contact, which leads to feelings of social isolation. Workers who feel isolated are less likely to contribute to the team, which stands in the way of innovation and effectiveness.

3.5.3 Social and Professional Isolation

According to an Ipsos Telecommuting survey (2011) 62% of responders admitted that not seeing colleagues face to face every day makes telecommuters feel socially isolated (A Global @dvisory, 2011).

Social isolation is a silent killer of virtual teams' productivity, which confronts the virtual team leaders and managers with their permanent goal of maintaining an environment that promotes social ties and increases the feeling of belongingness. It is important to select virtual employees accurately questioning their ability to work isolated. Certain individuals desire independent work with less social interruptions and politics, while others feel unvalued and disrespected (Management Study Guide , 2013).

Professionally, employees fear that being off-site and out-of-sight limits their opportunities for promotions and organizational rewards. Ambitious people tend to be present and heard in their working community. Moreover, professional isolation can result in a sense of estrangement from a professional identity and practice currency, or feel like there is 'no one to turn to' to discuss and share professional issues and ideas. However, other sources claim that professional isolation is not about distance, it is about lack of professional networks and contact (National Rural and Remote Support Service).

Thus, productive telecommuting in a combination with professional virtual management leads not only to minimizing socio-professional isolations, but also to its full avoidance as a problem.

3.5.4 Difficulty of Trust Building

Teams cannot function properly when co-workers do not trust each other. Building and maintaining trust in the traditional, physical workplace is difficult enough. However, this process is much tougher in a virtual environment, where people often have to work with someone they have not met in person.

When virtual teams span different cultures, misunderstandings can crop up more frequently, and, what is more, they are much harder to detect, and can be awkward to address. In addition, virtual teams rarely allocate special time for relationship-building: there is no kick-off or introductory meeting. So when times are tough, it is almost impossible to drop everything for the kind of heart-to-heart talks that can repair relationships and eliminate conflicts based on mistrust and cultural misunderstanding (Kerravala, 2014).

Right after global teams are formed, professional issues arise: for instance, how to divide work between parties and to handle organizational resistance. Virtual employees believe their jobs are threatened as there is less control over the overall success of their work, some of them might even fear the possible international relocation. These initial feelings of personal alienation make building strong relationships and trust within teams even more difficult.

When teams are co-located, they can build relationships informally through their daily activities. For some individuals whose work style is more relationship than task oriented setting up a friendly contact with co-workers is especially challenging. In their work “Creating and Sustaining Trust in Virtual Teams”, Greenberg, Greenberg and Antonucci identify two specific kinds of trust: Cognitive and Affective (Greenberg, 2007).

***Cognitive trust** is based on rational assessment of activities, function of a person’s integrity and ability.*

***Affective trust** is based on social bonds developed in a reciprocal relationship – emotional ties.*

Both trust species are a challenge to establish in the virtual context. Cognitive trust is often built over time as team members are admitting the professional success and strengths of each other at the back of their minds. Thus, while actually working on

achieving common goals, they are getting a respect for each other's working experience and professionalism simultaneously. If team-members choose not to contribute into virtual communication and relationships by not sharing their knowledge and experience equally, these teams may build cognitive trust at a slower rate than co-located ones.

In some cases, cognitive trust may be influenced with “misinformation” or “misinterpretation” of facts. At the same time there may be a disparity in working contexts across multiple locations such that team members are unaware of the impact of situational, technical, resourcing and other problems that their co-workers face, trying to complete their tasks (Greenberg, 2007). This effect leads to the growing feeling of undervaluation and mistreatment, which is harmful for employees' motivation and productivity (Aperian Global, 2012).

Establishing cognitive trust is especially critical when “affective trust” has not yet been established within a team. As affective trust depends on informal interaction between team members, it is obviously harder to build. The speed of trust building is closely related with national specialities and cultural ethics. For example, British people are good in small talking, starting any business conversation informally is a tradition in the US, while in Scandinavian countries and Finland, in particular, asking private questions is not acceptable and informal talk requests a special effort from most of the people, which prevents affective trust fast establishing.

3.5.5 Conflicts Based on Misunderstanding

Disputes among team members are never easy to navigate. Employee conflicts can be poisonous and lead to the damage of productivity, crushed creativity, and squashed morale. Unresolved conflicts are destroying enough in a traditional, physical workplace. Obviously, they become complex and intense in a virtual environment, as people do not have the luxury of proximity to work their problem and cultural differences out face-to-face. Lindred Greer, a professor of organizational behaviour at Stanford Graduate School of Business says: “Conflict in virtual teams is more likely to be negative for performance and is more likely to escalate” (Petersen, 2014).

It is essential to admit that conflicts can be relationship and task-related.

Relationship (interpersonal) conflict has affective components such as tension and friction. It involves personal issues: mutual dislike, personality clashes, and annoyance among team members.

Task-based conflicts reflect contradictory viewpoints relating to working tasks implementation. They may coincide with animated discussion and personal excitement but do not usually involve the intense negative emotions commonly associated with interpersonal conflicts. Task-based conflict has a professional form and is usually constructive. It includes differences about how task accomplishment should proceed and issues of duty and resource delegation such as who should do what and how much responsibility each person should take. Properly controlled and solved task-related conflicts might be beneficial for team performance (Kankanhalli, 2007).

"When people lack information, when they are uncertain about why someone disagreed with them, they are much more likely to take it personally." says Lindred Greer. Thus, it is the key responsibility of a virtual team manager to prevent task-related disagreement from devolving into relationship conflict (Petersen, 2014).

3.5.6 Different Time Zones

When members of virtual, global teams are asked about the problems they face, one of the most frequent areas listed is different time zones. Fifteen years ago checking e-mail inbox at night and finding it in the same state in the morning was a norm. Nowadays workers have to follow the constant informational flow at all hours of the day and night.

Work life balance might be negatively influenced with scheduling conference calls at midnight to accommodate team members or clients at the other end of the world.

Time zone differences can be used as the greatest asset to enable a project or goal to progress consistently as it is passed from team members of one time zone to another. However, so important for virtual collectives' communication is harder to implement productively if, for example, team members have just an hours per day to elucidate and assign the project to each other (Aperian Global, 2012).

3.5.7 Logistics: Physical Distance

Physical distance leads to a high level of transaction costs. Even though, modern courier delivery services and high speed post make logistics easier and faster around the world, sometimes highly important original documentation needs to be delivered from one continent to another for an impossibly little quantity of hours. While, in global corporations the department of logistics accounts for these physical distance challenges, in self-organized virtual start-ups and smaller international projects these issues should be resolved by a virtual project manager.

3.5.8 Technological Difficulties

The successful working of virtual team is supported by the efficient use of multiple communication technologies such as instant messaging, intranet, emails and video-conferencing, etc. Every virtual collective has got their own range of technical support, programs they use to communicate and, therefore, work. However, no one tool can provide the complete support: such a banal problem as disconnected Internet means a full disorientation for one of team members for a certain period of time, which might lead to high financial costs or a delayed progress. There are a large number of companies that can provide software to virtual organizations: the cost associated with its installation and maintenance is quite high and not always affordable by virtual start-up companies. When big companies running virtual teams hire technical support department, who takes responsibility for maintaining communication tools among virtual employees, smaller virtual organizations have to hire a technician or use the service of any IT outsourcing company, which leads to higher costs.

3.5.9 Cultural Differences

In 2009 Economist Intelligence Unit survey on the management of virtual teams showed that the challenge most commonly stated related to misunderstandings due to cultural and language differences in teams that operate globally. (Managing virtual teams taking a more strategic approach a report from the Economist Intelligence Unit) (The Economist Intelligence Unit Ltd, 2009).

Miscommunication is plentiful in virtual teams. A short-notice message that seems constructive to a team member from Prague comes across rude to an employee in Liver-

pool, while British would-be polite message ('Thank you for your email...') seems redundant to their Russian counterpart (Bailey, 2013).

Thanks to new communication technologies geographical team dispersion is possible; however, it has another consequence – cultural diversity. Team members can be scattered literally all around the globe, and belong to different nations, languages, religions. Even if the team is less extremely spread (across one continent only) and most team members are based in one time zone, this zone can cover over twenty different countries, as it is the case in Europe. Obvious cultural issues emerge: accent, communication and business ethics and understanding of what the effective communication is differ greatly in relation to the culture of origin. This creates a great basis for misunderstandings and tension in the collective. Virtual workers should respect the equality within their international team and demonstrate a certain degree of intercultural sensitivity.

While homogeneous teams are more compatible at the beginning, diverse teams are often more productive and creative in the long run after colleagues recognise each other's different working and cultural styles and get used to them. To eliminate conflict virtual teams should agree on team customs and ethics - ground rules of interaction (Bailey, 2013).

3.5.10 Lost Motivation and Team Spirit

As it was mentioned earlier, it is difficult to build trust in short terms within a virtual collective. Hence, setting 'all for one and one for all' spirit via disjointed emails and video-conferences remains problematic.

The sense of belonging existing within an organization is one of the goals of a virtual manager. Taking into account the fact, that motivation tends to be lost in the middle of the project, manager has to be sure that each team member remembers what he is working on, why his work is important and how it is going to be incorporated into the final project. The feeling of professionally important and valued input should be inculcated in the minds of workers on individual basis in order to maintain motivational level and achieve an overall success of the project.

Virtual leaders are responsible for creating a clear and compelling direction for the team, and making sure each individual is connected to the team vision. Team members'

individual goals should be linked to the team's overall goal and to each other (Bailey, 2013).

Team spirit will not materialize overnight, but is being steadily created through thousands of everyday interactions, supporting common position. Leaders need to encourage cohesiveness every time they communicate – for example, by creating a positive team nickname ("Dream Team") or conducting interactive birthday calendar to install a family atmosphere among colleagues.

Research shows that virtual teams are more cohesive and effective when leadership and responsibility are shared: each team member takes some responsibility for the team's success. To achieve this, virtual manager has to monitor, evaluate and regulate employees' performance – for example, giving them access to the metrics on which they are evaluated. Online presentation of individual task results is an ideal opportunity to share lessons learned, as well as to celebrate success and share individual accomplishments (RW3 CultureWizard , 2010).

In next chapter the theoretical framework of benefits and challenges of virtual teams will be supported or disputed with the interviews of experts in virtual team management and the results of Virtual Team Management Questionnaire.

4 FINDINGS

4.1 Introducing Experts in Virtual Project Management

First of all, it is essential to introduce interviewed experts, acquaint with their professional experience, current virtual activities, and biographies, personal and professional achievements. Additionally, the analysis and characteristics of the online survey responders will be found in this section

4.1.1 Interviewed Professionals

The aim of this chapter is to introduce the reader with the group of virtual project managers that were interviewed on the basis of this work. It is essential to illustrate why certain people have been selected, contacted and asked for helping out. Here is the short description of experts' biographical data, virtual management experience, and information about current virtual projects they are working on. The expanded version of experts' presentation can be found in Appendix 1.

Expert **Jessica Lipnack** is the CEO of NetAge Inc., which she co-founded with Jeff Stamps. NetAge's pioneering initiatives are in use in companies, public sector organizations, non-profits, and religious denominations around the world.

With Jeff, Jessica is an author of *Virtual Teams* book, along with five other books, including *Networking*, *The TeamNet Factor*, and *The Age of the Network*. This educating literature has been translated around the world. Jessica's noted and newest writing includes "The Virtual, Networked Organization," in *The Handbook of High-Performance Virtual Teams* "The Strange Beauty of Virtual Teams" published in *Milestone Quarterly Journal*; and "The Easier Way to Work: Collaborating in World-class Virtual Teams" published in *Cutter IT Journal*. The landmark article, which Jessica and Jeff wrote with two business school professors, "Can Absence Make a Team Grow Stronger?" (*Harvard Business Review*), reported on best-practices in "far-flung" teams (*All American Speakers Bureau*, 2014).

Jessica was one of the first people who recognised the tendency of virtual employment and telecommuting over 20 years ago in the US. She literally watched the development of virtual knowledge worker and worked in this particular field with her partner. It was

a great luck to interview such an experienced project manager to get a very valuable asset for this work.

Keri Calhoun serves as Vice President of Strategy at BatchBlue Software LLC, American company, which team is distributed and Keri Calhoun is a part of it. So, she knows how to work in a virtual team and run it successfully. Keri Calhoun was happy to share her knowledge and provided a large number of specific techniques BatchBlue team uses in order to stay productive. This company helps small businesses manage and grow customer relationships. And it is happy to let staff work from home, but it has a few rigid requirements: “Must love the Internet, having a flexible schedule, and donut cake.” (Reynolds, 2015).

Mark Curcher is a Program Director of the 21st Century Educators Program at Tampere University of Applied Sciences in Finland, who has got a massive experience of running international educational projects virtually. Mark holds a Master’s Degree in Online and Distance Education and a wealth of experience working online as both a learner and a facilitator. His interests include teacher professional development, authentic e-learning, educational use of social media, learning communities, teachers’ professional identity and the utilization of video to improve formative assessment feedback (Curcher).

Alice Hendricks is a CEO of Jackson River Consulting Company, established in USA. She is an accomplished executive with 14 years of leadership and management experience helping non-profit organizations resolve complex organizational and technological problems. The company provides coaching, technology consulting, process design, change management and staffing strategy to some of the top leaders and pioneers in the non-profit world (Jackson River).

All the projects in Jackson River are virtual as team-members always work away from the client.

Alice Hendricks mentioned in the interview that her team does not have an actual office, the team is 30 people and everybody works virtually from home.

Mikko I. is an entrepreneur and a co-founder at Ambr***** Inc., Finnish company.

At the desire of an expert, his personal data will not be discovered in this work. Mikko was interviewed because he is an expert in keynote presentation on the use of Virtual

Assistant (VA) utilization, future of work, crowdfunding and quantified self. His input is highly valued for this project's development.

Aleksi Pulkkanen is an entrepreneur and Co-owner at Agendum Ltd, the company which is situated in Tampere, Finland. Aleksi was interviewed because he was one of the developers of Agendum Collaborative Software, the platform which is very helpful for a productive virtual collaboration and the management of virtual projects. He provided the research with very useful information about the right choice of collaboration software. His product was taken as an example of convenient platform in the empirical part of the thesis.

Anna Danes is the CEO of Ricaris Have a Nice Day SL, Spanish outsourcing company, which aimed to look for professionals virtually from the bigger pool of talent, set up virtual teams and just provide outsourcing facilities.

With Anna's experience in managing distributed teams she has co-founded Managing Virtual Teams subsidiary, a new company offering bite-sized courses, virtual team activities, and consulting packages for companies dealing with remote staff.

Cathy Smith is a Learning Management System Administrator in InSync Training LLC, which exists for last 15 years in USA. Cathy joined the company 3, 5 years ago. Due to an industry the company operates in, employees make a lot of virtual connection and collaborate virtually with clients and each other.

InSync Training LLC provides a large number of educating services on how to work and manage online, such as the mobile, global virtual classroom workshops, highly effective virtual teams workshop, learn how to learn online workshop, survival school for the modern virtual classroom, and so on (InSync Training LLC, 2015). Cathy Smith shared some virtual collaboration secrets she worked out communicating remotely.

John-Paris Pantouvakis is a Professor of Construction Management at National Technical University of Athens, Greece. Dr Pantouvakis has got an experience of having both local and international teams, participating in virtual meetings. He provides an interesting opinion on different topics of this thesis as an expert who found out the difference between virtual and traditional teams, their pros and cons.

Nina Tune is a Project Manager in SitePen Inc., an American fully distributed team, which has a very unique way of doing things. SitePen team works for last 14, 5 years already, which is an extreme success for a virtual organization. Team members have reached the highest level of understanding and become a family by this time. Nina Tune greatly contributed to this work with her project management techniques and secrets, which allowed this virtual organization to become so successful.

Tomáš Rygl and **Kieran Beal** have been managing the same International Sports Retail Branding Project.

The project involved building an international sports retail brand (with accompanying Market Research), and was spread across 4 universities in 3 different countries, two in the Netherlands, one in Czech Republic and one in Tampere, Finland. Around 50 students in total were involved. Thus, Kieran Beal was a project manager from the Finnish University and Tomáš managed the Check teams. Both students have to co-operate with each other virtually as well as managing the work of each other's teams, Dutch colleagues and one more team from another Finnish Polytechnic remotely. It was a great virtual management experience for both of them and they were happy to share it in this thesis.

Sy Holsinger is a Senior Strategy & Policy Officer; Business and Project Consultant; Certified ITSM Trainer, working in Italy at EGI.eu Company and European Commission Funded Research and Development Projects.

The European Commission submits calls and proposals for very specific projects and typically those projects are dispersed within a number of different.

Sy Holsinger has worked in several dozens of these projects during 10 years of his career in this field. Sy Holsinger has a great experience of running remotely. The largest project of 40 members was spread across 54 countries and smaller projects were conducted across 6-8 countries.

Javier Jimenez is a Business Development Expert, Virtual Team Leader at EGI.eu Company, Spain. On the basis of EGI.eu he has been managing a large distributed project called VT Business Engagement in 2014; he has got an experience of managing virtual workers of different nationalities from over 12 countries. In overall, he was a project manager of 12 large dispersed projects.

4.1.2 Virtual Team Management Questionnaire Responders

Personal Information

Responders had a choice to stay anonymous or name themselves, providing personal information such as nationality was also optional. Figure 3 illustrates a pie chart classification of responders by age. The majority of ‘virtuals’ was aged between 31 and 45, which states that the responders were quite mature employees.

Age:

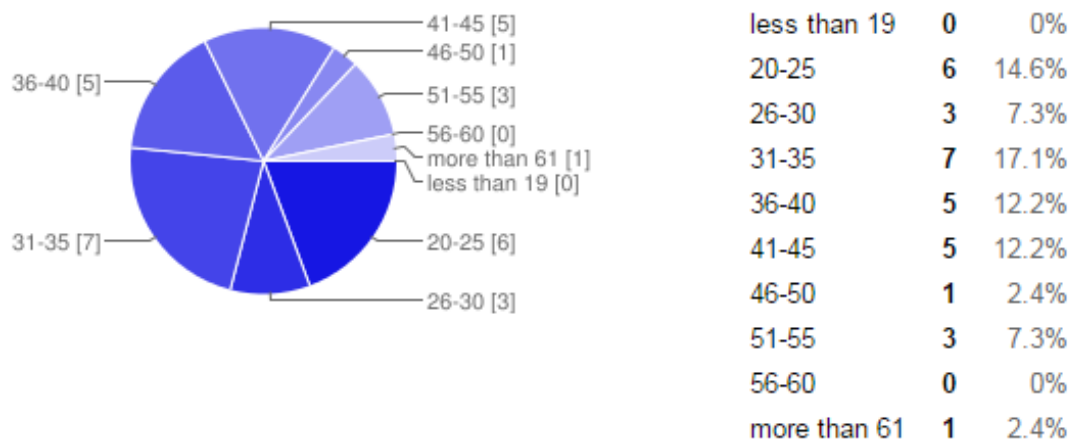


Figure 3. Classification of responders by age.

Figure 4 proves that the majority of virtual workers (61 per cent) were males. The overall quantity of responders is 41. This number was expected as only true virtual employees and workers were asked to fill in the form and obviously, not all of them occur responsive.

Sex:

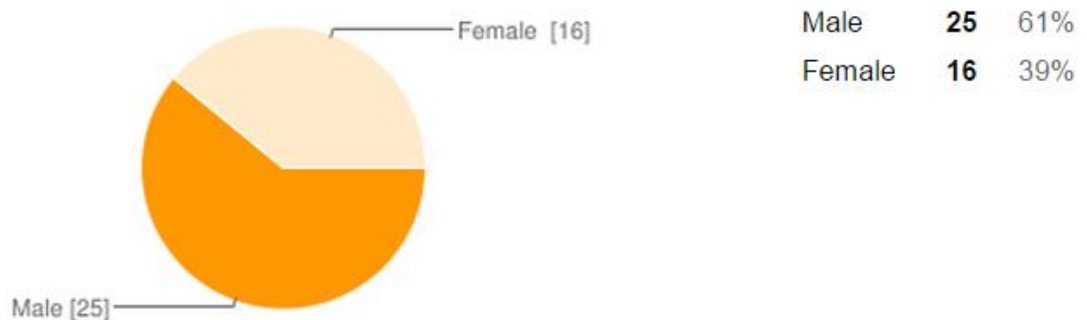


Figure 4. Classification of responders by sex.

Country of Residence was a mandatory field to reply as it was necessary to find out how diverse the responders are. The aim was to go beyond European Union virtual experience and get information from other countries, which worked out, as we can see USA, Vietnam and even currently unrecognised Donetsk People's Republic among responders.

Thus, we got feedback from 13 different countries listed below:

- France
- UK
- Czech Republic
- Switzerland
- Spain
- USA
- Poland
- Donetsk People's Republic
- Greece
- Italy
- Vietnam
- Finland
- Lithuania

As it was mentioned earlier, the Nationality field was optional; however, a large number of responders chose to fill it in. Thus, once again a pretty long spread of different nationalities was got, which proves the high level of cultural diversity of responders. There are many mixed nationalities and even one Hobbit representative (what proves an availability of the sense of humour of some responder):

- Vietnamese
- Mexican/Caucasian
- American/French
- American
- British
- Asian
- Portuguese
- Italian
- Spanish
- Polish
- Russian

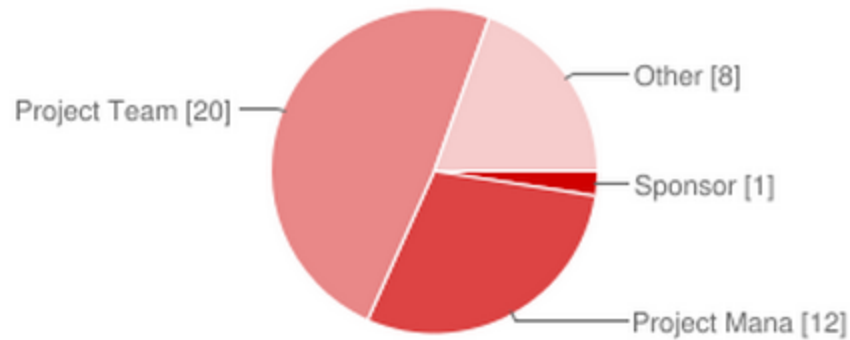
- American/British
- Lithuanian
- Greek
- Czech
- Finnish
- Hobbit

The next question was about marking an organization, in which responder is employed and current occupation there. The organizations were various, starting from several universities, such as TAMK, University of Perugia, University of Technology Brno, University of Perugia, team-workers of interviewed virtual managers (EGL.eu, InSync Training LLC, SitePen Inc.) and ending with such massive corporations as IASA and Nokia. Positions are listed below:

- Director
- Director of Project Management
- Synchronous Producer Virtual Instructor-Led Training
- Research Professor
- Project Coordinator
- Systems specialist
- Doctoral student
- LMS administrator
- Senior Strategy and Policy Officer
- Senior Engineer
- Chief Operating Officer
- Executive Vice President of Design & Innovation (Technology)
- Professor
- Virtual Project Strategy Specialist
- Senior Java Developer
- Executive Director
- Senior Research Fellow
- Head of Informatics
- Information Technology
- Synchronous Learning Expert
- IT Manager
- Senior Software Engineer
- Program Director
- Manager
- Producer
- Manager/Founder
- Deputy Director

- Associate Producer
- Catering Supervisor
- Software Engineer

What is your role in a work of the projects?



Sponsor	1	2.4%
Project Manager	12	29.3%
Project Team Member	20	48.8%
Other	8	19.5%

Figure 5. The Role of Responders within Virtual Projects

Figure 5 shows that the majority of responders (48, 8%) were virtual project team-members, while the quantity of project managers (29, 3%) was pleasantly high as well.

The last request in the Personal Information section was to identify how many virtual projects the responder was participating. The question was optional. 7 responders stated that they have experienced over 100 virtual projects during their career, 2 responders marked it as 20 projects, and one said it was about 30 in overall. The rest of responsive interviewees have completed less than 16 projects.

Thus, it can be proudly said that the most experienced workers in this field have been reached.

Virtual Team

The next set of questions was focusing on the information about virtual communities responders were a part of. Figure 6 shows that the majority of responders (26, 8%) were participating in projects with 5-10 members. 10 responders were working in projects of less than 5 participants, while 8 responders worked with more than 35 colleagues.

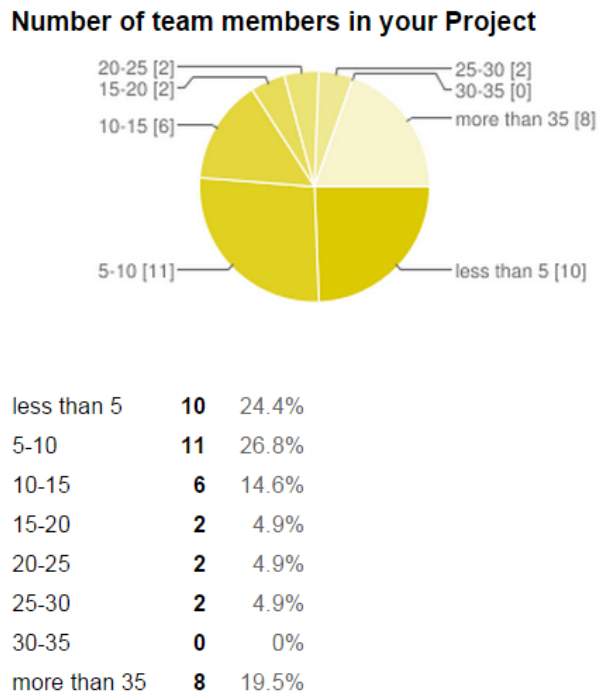


Figure 6. The Number of Team Members in Virtual Project

Across how many countries is your team spread?

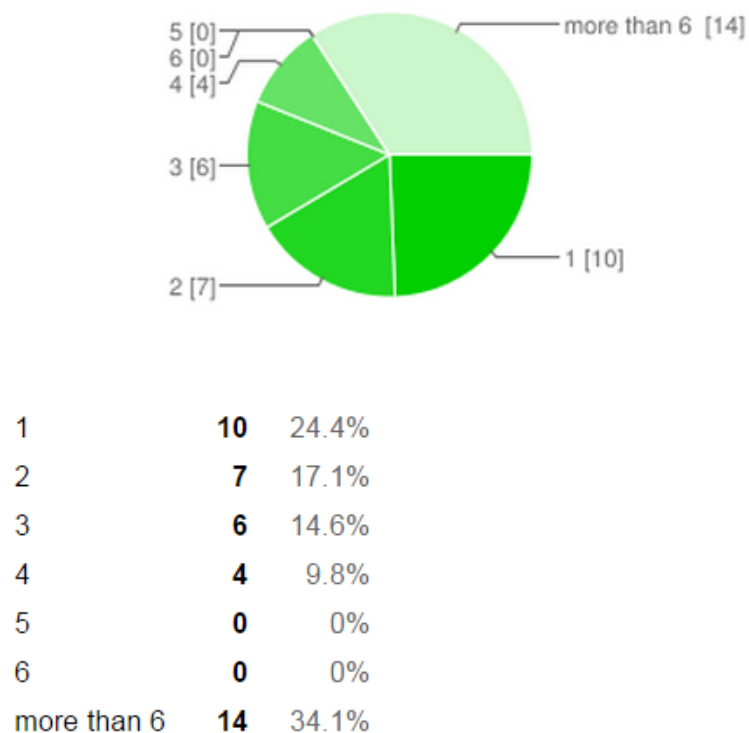


Figure 7. The Number of Countries the Team Was Spread

Figure 7 illustrates across how many countries the teams of responders were dispersed. The majority of responders (34, 1 %) were working in teams distributed across more than 6 countries. However, 24, 4% of responders were working in local virtual teams within the one country only. For example, it can be simply explained with the fact, that American virtual workers and project managers were the most responsive in this research and United States has got challenges working internationally described in section ‘‘The US Case’’. Thus, the Americans tend to work virtually within their own country from its different states.

4.2 The Development of Virtual Worker

Virtual worker phenomena has occurred approximately twenty ago. Then Jessica Lipnack was one of the first people, who recognized the tendency of virtual team management. The noticed labour market trend formed the basis for her books. One of them named ‘‘Virtual Teams’’ became an essential asset for the theoretical framework of this paper.

Jessica Lipnack: ‘‘‘‘ Virtual Teams’’ was the fifth book I had written (with the late Jeffrey Stamps) on distributed, boundary-crossing organizations but the first written after the Web had begun to take hold as Internet penetration had reached most countries in the world. For the first time in history, people had the infrastructure needed to work seamlessly regardless of their physical location.’’

Jessica Lipnack was asked to tell more from her experience about the development of virtual worker for last twenty years as well as the difference between modern virtual employees and pioneers of this industry.

Jessica Lipnack: ‘‘ Work has changed dramatically in the past two decades. Whereas once ‘‘knowledge workers’’ could do very little if they were not in the office, now they often wonder why they have to go to the office at all. It is hard to picture what it was like: the ‘‘important’’ people spent most of their days in offices around the rim of buildings, while the people who reported to them were in vast barns in the middle. By the 1970s, these rows of desks started to be separated into cubicles. People worked in their ‘‘stovepipes,’’ communicating principally with those in their ‘‘departments.’’ Then, with the rise of the Internet, it became obvious that greater communication, more collaboration, and cross-organizational cooperation could radically improve innovation, creativi-

ty, productivity, and implementation. Very quickly, the walls literally started to come down and with them cross-boundary work became the norm. Once that began, geography became less the definer of co-workers than purpose, which brought disparate people together regardless of who they were working for.”

Thus, the expert’s opinion coincides with the historical description of a knowledge worker development provided in theoretical framework. Indeed, the establishment of a new era of employment occurred in fast terms and the way we not only work, but also study has been changes dramatically over last 2 decades.

Let us take a more focused understanding, whether switching to this unique style of work was worth it. Are dispersed teams more efficient than traditional ones?

4.3 Virtual Teams Efficiency/Virtual Team vs Traditional Workspace

According to the conducted survey, the majority of responders (46, 3%) are sure that virtual and traditional teams are both equally efficient 16 out of 41 virtual workers are agree or totally agree that virtual teams are more efficient and only 6 workers disagreed with this statement.

Virtual Teams are more efficient than Traditional Teams nowadays

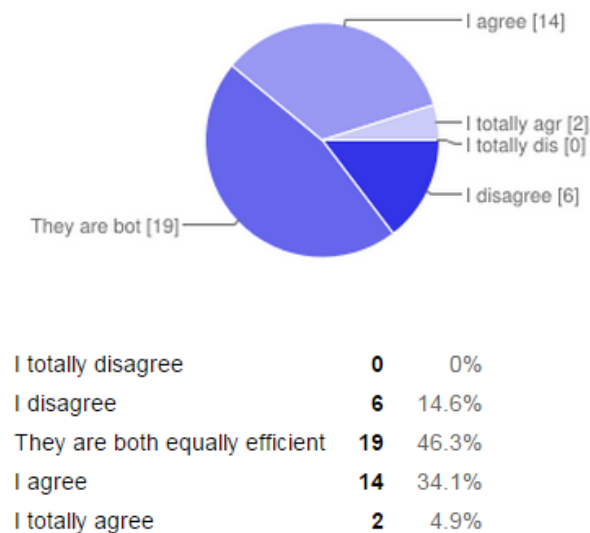


Figure 8. The Efficiency of Virtual and Traditional Teams

The opinions of interviewed experts were also very different, as, in fact, it is hard to identify whether virtual teams are more efficient than traditional ones as such factors as industry, previous working experience and the quality of virtual project management do

matter. For example, the most successful and long lasting virtual organizations, such as SitePen or BatchBook, build software, create websites and provide virtual services. A large number of web developers prefer freelancing and work in virtual organizations as the only thing they need to stay efficient is their laptop. That is why the opinions of interviewed experts on this issue are very diverse. For example, in spite of the fact that Alice Hendriks' team members are sure that they are more efficient virtually, she actually does not think they are.

Alice Hendriks: "I think that it is the same level of efficiency. You create the situation when people can chat with each other about non work things during the day and that is important for developing a culture. I think efficiency is at the same level, if you can work."

At the same time Keri Calhoun emphasizes the importance of challenging boundaries that workers have to overcome in order to reach an unconscious harmony and productivity. She is sure that the virtual teams of her company are able to work efficiently where and when they need to.

Keri Calhoun: " A virtual team only works if there is great communication, dedication, trust, autonomy and respect from everyone. A team able to work under these gratifying and challenging conditions is far more productive and ingenious than a fully localized team, because working virtually requires intense and focused collaboration and output, which is more possible without the distractions inherently present in an office."

Communication is everything for a virtual efficiency, and this is also a great challenge. Thus, Tomáš Rygl found working virtually slightly harder than running a traditional team, because of the lacked face to face communication. However, technological progress has made efficient online collaboration possible. The modern technology is so advanced that some project managers even find running virtual teams easier than traditional ones.

Mark Curcher: "I would say yes, it is easier. There are so many ways to communicate and get in touch get: Facebook, email and everything else. I cannot imagine this kind of thing before we had these technologies. ... If we tried to do stuff like this by letter or phone calls, it would be impossible. It is so easy now to get hold of people, anywhere in the world, anytime. So, you can go back, you can check something, you can clarify. For example, I want to check something this afternoon with the guy from Australia or in America, you can do that, when in the past it would take time, when now I can post a message on Facebook and very quickly I can get a reply."

Thus, at this period of Information Age we cannot always fully substitute traditional style of work; however, the amount of virtual projects is massively growing as well as their efficiency (Orser, 2014).

4.4 Practical Benefits of Virtual Teams

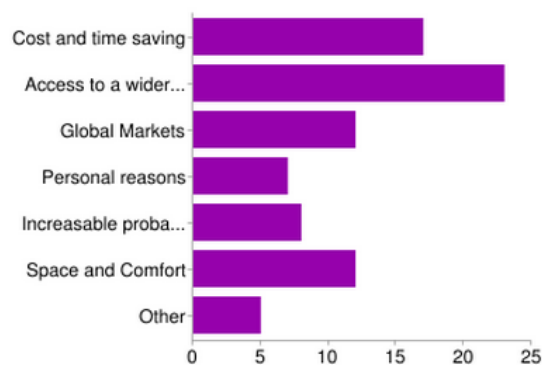
As we have already discussed, theoretically there is a large number of pros virtual teams provide. In practice, project managers emphasize the main ones that have become crucial for them over the years. Figure 9 shows the ranking of reasons to run a dispersed team according to the research survey.

Thus, we can see that the main reasons of setting up the virtual teams of responders were:

1. Access to a wider pool of talent (56, 1%)
2. Cost and time saving (41, 5%)
3. Access to global markets/Space and Comfort (29, 3%)

The noticeable feature is that experts provide much more benefits that are equally important and valued by them as those three.

What is the main reason for the team to be dispersed?



Cost and time saving	17	41.5%
Access to a wider pool of talent	23	56.1%
Global Markets	12	29.3%
Personal reasons	7	17.1%
Increasable probability of discovering the new innovations	8	19.5%
Space and Comfort	12	29.3%
Other	5	12.2%

Figure 9. The Main Reason for Teams to Be Dispersed

According to the theoretical framework those were one of the main reasons for a virtual team to be disspread. However, interviewed experts provide new important aspects of this question.

4.4.1 Flexibility

Virtual work provides the unique situation when people no more have to build their lives around a highly paying position. Their work is so flexible that it might be built around their private lives. There are no more moving across the country because of a promotion, making your partner change the job and your children get used to a new educational institution. Vice versa, there are no more young people who are passionate with traveling and cannot go, explore the world as they have to be present at their offices every day from 9 am till 6 pm. Keri Calhoun describes the flexibility as one of the biggest benefits for her virtual team by saying: "Being able to optimize your workspace and time in a way that suits individual lifestyles and needs is a great privilege that we take seriously and work very hard to maintain."

4.4.2 Cultural Diversity

Regardless the challenge of managing cultural differences between international team members, virtual work provides the greatest opportunity to work across the borders and develop by meeting different people with absolutely unique cultural and professional background. Mark Curcher is a project manager who values this benefit the most. The group of people, who are used to doing things differently, is harder to manage, but Mr Curcher is sure it is worth the effort.

Mark Curcher: "I guess the main benefit is that you have people with different viewpoints, different ways of seeing the world. I think the problem is when you are in a group where everybody has the same background and everybody has a similar set of experiences, and then you end up with people who think the same way. You do not have anybody who comes up with the solution to a problem the others once. So, people who come from different backgrounds, have different educational experiences, who see the world in a different way are sometimes very good in saying: " why do not we try this? " or " why do not you do this? " and that makes you really think about what you are doing and why you are doing it. So, if you have to put it in one word, it would be ‘‘diversity’’.

The great thing about international projects is you have diversity experiences. You have got a wider pool of talent and people who do not think the same. There is nothing worse than a group of people who actually are agree with each other, because there is no creativity."

It is a noticeable feature that usually cultural diversity does not seem a positive for any collective as it comes along with the conflicts based on cultural differences. However, as it seems so, a successful project manager is able to better off in any situation.

4.4.3 A Wider Pool of Talent

Hiring the best of the best basing exceptionally on the quality of labour is a dream for every recruiter.

Alice Hendricks: " The highest value of a virtual team is that you can hire for skill and cultural fit and not just location, so the pool of people you can have, that are working for you is greater."

Virtual organizations open boundaries for recruiting unique knowledge workers regardless how far they are. Sometimes this becomes the crucial business idea as it happened with Ricardis Company six years ago.

Anna Danes: " ... we were offering services to web pages, so we were offering content, uploading translations, customer service in many languages that is how we started having a distributed team, an online team. Everybody was in Barcelona and the rest of the team was around the world, because we were offering services in different languages so we needed the talent, wherever they were. If we needed something in Polish, they were in Poland. If we needed something in Dutch, they were in another place. So that's how it started and also some clients had small budgets. We needed to find somebody that spoke German but our client could not pay for a German rate, so we needed to find somebody from Germany in Argentina, for example. So the rate would be lower. "

The experience of Ricardis Company perfectly illustrates the possibility to hire entirely for skills as well as the importance of language proficiency in international virtual community.

4.4.4 Language Proficiency

The fluency in a foreign language has a great effect on the quality and speed of virtual collaboration and as a consequence the productivity of work. The amount of conflicts based on misunderstanding within the international team is also a frequent result of poor language proficiency. Cathy Smith points out that she tends to avoid misinterpretation in emails as she works with people with high English language proficiency. Usually recruiters pay attention to the fluency of both written and spoken working language of virtual candidates. Despite the lack of face-to-face communication virtual team-members should not have any problems understanding each other during video conferences. Poor mastery of a language applies an extra pressure and makes virtual productivity even more challenging than it is.

Cathy Smith: ‘... in email and Skype message you cannot get the feeling of the person’s tone, so it takes a while to interpret what they mean, that is why sometimes we pick up the phone and call, because you do not want to be misrepresented...’

Very often instead of clearing things up and getting rid of all the email misrepresentations foreign virtual colleagues get even more confused as they cannot catch up with native speakers. Dr. John-Paris Pantouvakis has presented the situation from his working experience that clearly argues for this statement.

John-Paris Pantouvakis: ‘ The above [conflicts based on misunderstanding] is particularly valid when you have people from different countries, with different English language capabilities, trying to communicate in a virtual meeting. Add to that technical difficulty, e.g. trying to communicate over a mobile network. I do remember a meeting with multiple participants and a guy from Italy who could not follow the conversation due to bad English and poor connection. He was hearing half of what it was said and comprehended even less. The meeting almost ended in a disaster.’

Preventing similar situations in virtual teams is a responsibility of a recruiter and a project manager. That is why when a web developer you are recruiting has got excellent programming skills and poor English; you cannot hire him/her as he/she is still going to work first of all with people.

4.4.5 Knowledge and Experience Sharing

As it has already been cited earlier, Mark Curcher finds cultural diversity highly beneficial as it leads to a knowledge and experience sharing, which makes virtual cooperation more fascinating and positively challenging.

Mark Curcher: “ Yes, indeed, and I think the cultural differences are some of the things that can make it interesting. For example, any of the people I have worked with from the Middle East, the Muslims, and their view of the world is very different from my view of the world and your view of the world. In the same way, between you and me, we have different experiences. So, sometimes I think it is good to be forced out of your comfort zone and look at the world through somebody else’s eyes. It is not always comfortable, but if you want to really get new ideas, you sometimes need to be in the situation where you feel uncomfortable, not easy. ”

Flexibility is essential at this point as international virtual management goes very close with the problem of different backgrounds, which are hard to manage. Team-members have to be loyal to all the opinions, trying to make the most out of it.

Mark Curcher: “ The only way I know how to manage it is that you are genuinely open to different viewpoints. I do not know where it comes from: my experience or just the fact that I have lived around the world. I left my country 20 years ago and I have lived with people from around the world. So, that is also a factor, because in order to survive in different countries, you have to be open-minded. ... It is something about mind set. You say: “ Ok, this is different, interesting”, rather than: “ Oh, this is wrong, this is not how I do it, and this is not how we do it.”

You have to think: “let’s see what happens if we do this.”

I guess it is about being able to tolerate risk, to try things. I guess, if you are going to the UK, you take a risk and if it did not work out, at least, you gave it a go, you gave it a try. And I think an international project management is the same thing: you have to try different things, be open minded. ”

Apart from knowledge and experience sharing, Tomáš Rygl has also the ability to make more international connections, virtual projects massively provide.

Tomáš Rygl: “ It is something different and you can speak English and can see what the problem is with cooperation between international teams. It is quite nice that you can gain interpersonal connections and contacts. “

Thus, the importance of knowledge and experience sharing as providing employees and opportunity to grow coincide with the information provided within literature review.

4.5 Overcoming Obstacles of Virtual Team Work

Figure 10 shows the list of the most common obstacles that virtual team workers face most often. The challenges were picked up by the responders of Virtual Team Management Questionnaire.

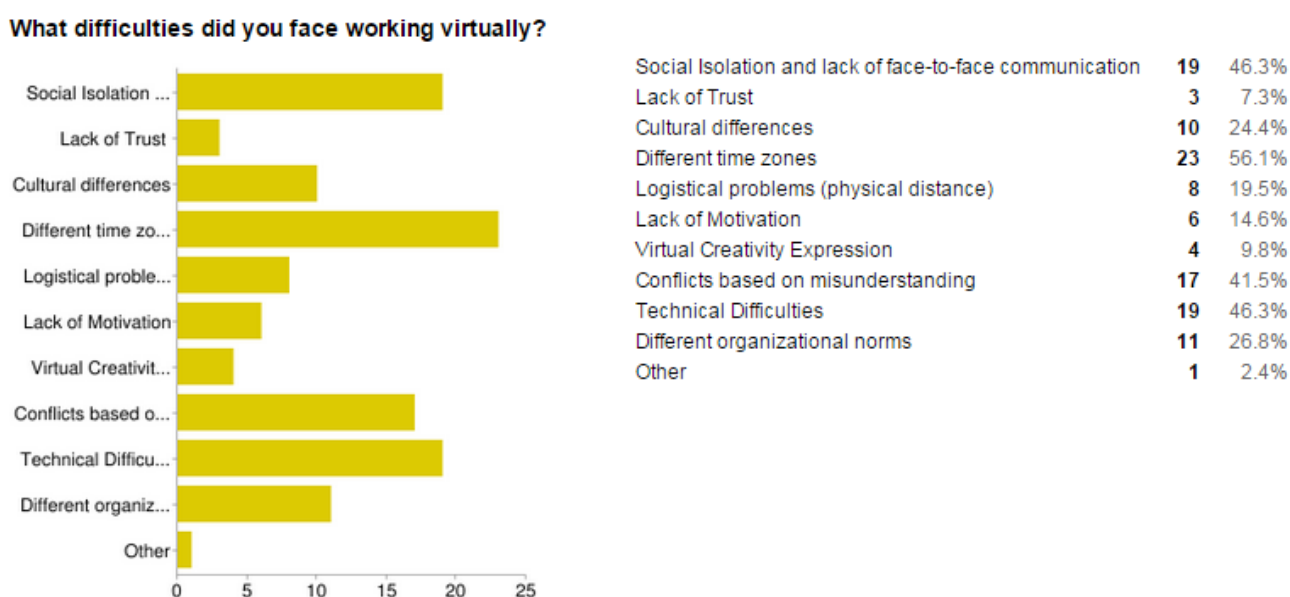


Figure 10. Difficulties of Virtual Work

Thus, the majority of responders, 56, 1% find different time zones the most challenging aspect of virtual team work. The next place is shared by social isolation, lack of face to face communication and technical difficulties (46, 3% of virtual workers found it hard). The next positions in this sad ranking are taken with Conflicts based on misunderstanding (41, 5%); Different organizational norms (26, 8%); Cultural differences (24, 4%). While conflict and cultural differences management is quite an obvious problem for any team, different organizational norms seem to be a challenge for virtual teams as most often their members are employees of different organizations and subjects of different labour legislation. Tomáš Rygl says it all:

“ The main difficulty I had was the different methodology used in Czech Republic rather than international teams had. Finnish people are teaching different things differently, so I say it is mostly an educational background.”

Logistical problems were marked as challenging by 19, 5 % of the responders.

Surprisingly the lacks of trust, motivation and creativity blockers have not been recognised as crucial problems among responders, even though experts find them quite significant.

Jessica Lipnack clearly emphasises the list of main obstacles of virtual management and team work, where the main problem remains human element.

Jessica Lipnack: ‘ ‘ The biggest difficulties and challenges are the same that they have always been: lack of clear purpose; inadequate methods—or attention to—maintaining good communication; lack of familiarity and camaraderie among team members; and insensitivity to cultural differences. We have more than enough technology and still lack a good deal of humanity. ’ ’

Sy Holsinger supports this point of view, for him the main problem for a virtual community is its poor management.

Sy Holsinger: ‘ ‘ ... the main issue when virtual teams break down in terms of an original time planning is poor management ... One time at the conference we had a session where virtual teams we were running inside EGI and one of the chairs of the session asked me: ‘ ‘Your virtual team run very well, could you add one slide to say how you do it?’ ’ I said: ‘ ‘Ok, I’ll put some slides’ ’ ... I thought it was silly and I almost went through the slides quite quickly as I felt quite embarrassed as all I considered was basic management and at the end of my talk, when I asked whether there are any questions, on guy asked me to come back to the slide number 3. I went back to that management slide and that guy said: ‘ ‘ that is probably one of the most important slides you can have because people take this for granted.’ ’ And that made me realise that people who do those things they think it is the minimum effort, but actually you realize this is not that insignificant. And that is the reason why most virtual teams fail, because it does take planning and organization and people need to be told what to do so they are not lost in their own daily work. ‘ ‘

As a representative of a consulting company Anna Danes is very much familiar with the whole spectrum of virtual challenges as her company provides services aimed to solve them.

Anna Danes: ‘‘ There are many problems we call them challenges. ... Here there is a little bit of information that you can find quickly but I think some of the main problems that there is a problem that company faces, there is a problem that manager faces and there is a problem that worker faces. I think that or the worker being alone at home or in the office that he or she is renting is very exhausting.

In the beginning they think it is a lot of fun because you can do more or less the schedule that you want because you are far from the time zone of a company where your boss is. So, you can do the schedule that you want. You feel very free, but after some months the worker starts feeling down. They start to feel lonely not connected to the team and they start to feel like there is a low communication and so we work a lot with fighting all this. We always advise to get together, to celebrate as many things as you can with your team members, because otherwise if the manager does not work on the motivational aspect, so the person just doubts, you know. The person starts to feel much unconnected to the work, so it is important that the manager works a lot with that.’’

This is what Anna Danes professionally suggests to look after: ‘‘ Project managers can fight other kind of problems: make sure goals are met, team-members are connected, and they are following the instructions. For me, the key solution to that is to have motivated people, I mean, it is also important to have very clear procedures to have very clear expectations, to have ground rules with your team to know and tell them exactly what you expect from them, they should expect from you. And once it is sorted, there are more things project manager needs to do: first, to create goals and clear objectives and clear ways to report those objectives with the team; and, second, the goals should be set together. Not managers should say ‘I want this’ or ‘I want that’, everybody should agree on goals that should be very clear. That was the one thing and the second thing what the manager should do is to always work on the motivation of the team, make sure that team-members understand, how important they are and that the manager is available for them all the time and the manager does things to promote this motivation: creates small projects for them to complete, that there is a possibility to have more responsibilities, team leader empowers them and that they have an open communication. So, I think these are the main things that the project manager needs to work on.’’

Let us focus on specific challenges and the ways out of the situations in this chapter.

4.5.1 Technological Difficulties

Technological difficulties would include such inconvenient barriers as slow network computers, poor architecture, and lack of collaborative software. It is noticeable that most equipment and software has been designed for use in a traditional office, so those working at remote sites may face problems interfacing with their colleagues.

At first glance technological problems do not seem massively serious as they are easier to manage rather than interpersonal relationships within the team. However, it might end up with an essential drop in the productivity of the whole project. Interactive meeting can become a disaster if one of the members has got a poor Internet connection, this leads to the unpleasant dropping out of the team, professional and social isolation.

As an example, Keri Calhoun described the problem she has faced using video tools with her colleagues and the way out of the situation they found.

Keri Calhoun: ‘‘ We have yet to find a video tool that does not compromise call quality, so in order to keep disconnections low and call quality high we generally turn off video. We do have a rule, though, that callers should keep mute off unless totally necessary, which allows for candid reactions and even background noise that can oftentimes offer a window into someone's daily life.’’

At the same time, this method does not allow to substitute face-to-face communication by having a video conference, which remains inconvenient for a team.

4.5.2 Conflicts and Misunderstanding Based on Technological Difficulties

The right choice of software can save the team from both technical difficulties and conflicts based on misunderstanding. Aleksi Pulkkanen is a web start up entrepreneur, who has built simple software that makes it easy for people to collaborate online.

Aleks Pulkkanen: ‘‘ I think it is always trickier communicating in a written form, especially in virtual teams. People are very diverse and they have a different background to interpret emotions on the background of messages. It is trickier rather than speaking directly, but when information is nicely stored and displayed so that it is easy to go through all the comments, it is much more probable that you will be successful in this kind of communication. When email spreads get very long, the informational level of new replies usually decreases. When spreads are long all the energy of people is spent on trying to find what has been discussed earlier and what should be the answer and the answers are very short. Thus, there is also more room for mistakes or some people can

be dropped out from the discussion and it is totally a big point for conflicts and misunderstanding as people do not have this information available, that they should have. So, comparing to emails, this collaboration [Agendum Software] is stored nicely, displayed nicely and if our system is easy for you to select people to be involved into a discussion when you start one, then our system makes sure that every one of them gets notifications of new messages, so nobody is dropped out.’’

More constructive information about Collaborative Platform created by Agendum Company will be discussed below in Communication in Virtual Teams Chapter.

4.5.3 Interpersonal Conflicts and Misunderstanding

However, conflicts can arise simply due to an interpersonal hostility and the lack of trust within the virtual workers. There are companies that provide services for maintaining relationships within the team. They specialize on teambuilding, trying to come up with unique solutions to specific challenges their virtual customers suffer from. These are companies like Ricaris represented by its CEO Anna Danes in this paper.

Anna Danes: ‘‘ There are many problems we call them challenges. On our web page we created the guides, so people can go there to find solutions to solve their problems.’’

And, as Keri Calhoun confirms below, these services are quite popular among virtual communities.

Keri Calhoun: ‘‘ It [conflicts due to a lack of trust or misunderstanding] seems to me like frustrations are either vented to a co-worker someone trusts or brought to management, the latter is typically responsive to concerns. Honestly, this is something we struggle with. There are some interesting apps and companies out there trying to address this...knowyourcompany.com is a good one...and we have looked into using a service like this to help better gauge the general pulse of the team and to address issues before they become disruptive.’’

Regardless the cost, project managers might choose to invest in these activities due to their effectiveness and project final success as the return on investment.

4.5.4 The US Case

Although one of the main benefits of running virtual teams, an ability to emerge different markets and hire workers internationally does not always remain a priority. For Eu-

ropean Union the problem of time zones is not that critical, while the USA virtual teams still have to hire within the country and its nearest states. Nina Tune clarified why.

Nina Tune: ‘‘ I can explain it to you very simply: tax and employment laws, probably the biggest blocker are that one. So, I know that in the past they had a couple of employees from Europe, Canada. There is just the problem is that their particular laws, the work environment, how things are set up, things like that, that is one big thing as we are a small company, we are very lean and very efficient, we do not have armies of lawyers to do all that paperwork for us.’’

However, if the knowledge worker is a unique professional, Nina Tune has an opposite approach to the recruitment process.

Nina Tune: ‘‘ So, if there was some superstar developer we absolutely had to have, we would make that work, but that is entirely case by case and not something that I advertise. If we want to hire somebody from overseas, we will find them and we will decide if we can make it work and then we will do it.’’

However, the main reason not to go international still remains the same: time zones. Alice Hendricks has experienced the difficulty of work with people from another time zone within her virtual team.

Alice Hendricks: ‘‘ I think that sometimes the time zone issue is a problem. We do not tend to work with people from too distant time zones, so we pretty much keep focusing on US and not globally, so there is overlap. I have a situation like that: a part-time person on east coast of US, eastern time zone, working with a client and the programmer in a pacific time zone and she would get off work as a programmer and client were coming to work because of a time and it was very hard. So, staffing product can be a challenge for sure and, I think, it can be something that is difficult for our staff, because they want to feel that they can serve the client, but they have different hours that can be difficult.’’

Thus, the companies of the US still cannot incorporate global virtual teams into their departments. Nina Tune confirms that the problem of different time zones naturally exists.

Nina Tune: ‘‘ There is another reason, time zones, one of the things that help us to work as a company is that we have e-zone of hours. If everyone is required to be online for 6 of those hours, it is like a 10 hours vent and you must be online for 6 of those hours, which is basically a work day and we are dealing with people overseas that means sometimes we are working in the middle of the night, which they might not like doing.’’

Thus, the combination of different reasons does not allow American virtual teams to work globally 24/7. At the same time, it does not mean that they do not have clients from overseas.

Nina Tune: ‘‘ So, yeah, it is a couple of different things, I would not say that we would never do that and we would never do it again, this is just a lot of hindrance to get through. Everything in the US based is simple enough; the only thing we have to deal with is tax laws between states, which hurt, difficult enough. ‘‘

The US Case is very a specific and sensitive topic to discuss, European countries do not face the same difficulties working with each other as the legislation and European law has been adapted with the trend of globalization, internationalization and international trade.

4.5.5 Social Isolation

Very often switching to a completely virtual style of work occurs painful for traditional employees. First, they think the freedom of time management is great and suddenly they do not know what to do with it.

Jessica Lipnack: ‘‘ As with any innovation, some people took quickly to the new way; others resisted. The common wisdom is that about 20 per cent of people will always cling to the old way, while 80 per cent rapidly adapt. With a new generation coming along that never new life without the global mesh, the percentage of resisters will shrink ever more rapidly and eventually become a negligible number.’’

For instance, there is no lunch time or after work bar sessions with co-workers to socialize. Of course, not every virtual employee should be an introvert to perform successfully. However, a recruiter has to find out whether the potential candidate has got an experience of a distant work and how he/she managed working on his/her own previously. The careful recruitment minimizes the chances of a social isolation syndrome, although does not eliminate its possibility. However, there is always a way out of the situation. Some of them might use the offices of their friends, attend working communities, quiet cafes. Alice Hendricks gives an example of how her employees tend to manage their isolation.

Alice Hendricks: ‘‘ I do find that some our staffs do feel lonely. We have several folks in the area of the country of the United States, cities that are next to each other. They go to a co-working space once a week and they work together even if they are not working

at the same project, they are together and they go out for a beer after work. Other individuals go to co-working places in their cities, so I have a staff person in Northampton, Massachusetts and one in Los Angeles and they go to co-working spaces.”

Thus, social isolation is not only a project manager’s problem, but also an employees’ responsibility to manage their loneliness.

The most damaging impact of social isolation is a loose of motivation. Mark Curcher mentions this problem in a personal context.

Mark Curcher: “ For me, the thing that demotivates is isolation. I need to be working with people and doing things with people, if they stay in contact with me, I stay motivated. If I am isolated, I lose interest.”

4.5.6 Virtual Motivation

Virtual Motivation is more about strong self-motivation and discipline.

Nina Tune: “... we just hired another developer and I am in charge of an orientation process and one of the first things I told him is that he is working from home and we are not there to see what he is doing, we are not able to look at his screen and make sure he is actually doing his work.”

Thus, worker should understand that he or she is the main person who needs and wants the work to be done in a proper way. Maintaining virtual motivation might be stressful for ones, while other lucky managers like Alice Hendricks, have never faced this problem.

Alice Hendricks: “ I have never experienced anyone saying that they are not motivated. Everyone is very involved and participatory and gets their work done on time.”

Nina Tune is also very proud with her team on this issue and she explains why below.

Nina Tune: “ I think they are more motivated in general. We know the product plan, we set up the expectations- these are the things that need to be done, and we structure their priorities so they know what needs to be done. Quite frankly, if they are not motivated and they are not doing their work, they are not going to be employed here. It is like that with any other company: they know what needs to be done, they want to do it, even if that is a project they do not like. We are such a small group, they know it helps us overall, so we will suffer the most difficult customers and projects as we know the angle and this is business and it puts all of us all together.”

Clear goals and expectations are very important as well as interpersonal relationships. The virtual colleagues have to be a true team and act as a team, sharing responsibility of

not letting team-members down. That is why staying in contact with workers is so important for Mark Curcher.

Mark Curcher: “ Yeah, motivation is a problem. Again this is when network is important for me. Also everybody is different, you have to be in a network, so people can keep you encouraged and also the same for people in your network. This is one of the advantages of modern communication technology, it is so much easier to send someone an online message to try to encourage them, motivate them and keep their interest. If I see just a little Facebook update or you are going to email or tweet or something: “How are you getting on this project?” or “Have you done this yet?” and so on. These are the things that keep motivated. “

Nothing can encourage more than the feeling of self-importance recognized by your colleagues and managers. In a virtual team just like in a traditional one, the pointing out the worker’s merits and giving the opportunity for self-development and promotion do matter. Also Keri Calhoun emphasises the importance of tiny gestures that are highly appreciated by workers.

Keri Calhoun: “ We send regular care packages through the post, we celebrate birthdays with fun emails and electronic gift certificates, and we try to recognize good work and ingenuity when it is outstanding. “

These little deeds show personal care, make employees feel valued and eliminate both social isolation and the lack of motivation.

4.5.7 Work-Life Balance

Working on your own, without anybody checking what you are doing requires a high level of self-discipline. Very often virtual beginners have problems with time management, starting their working day, finishing it and balancing family and working activities.

Alice Hendricks: “ I have had several people have trouble with getting up and getting showered and going to sit at your desk, otherwise the day feels too long. I also had problems with people saying they cannot stop work at the end of the day.”

The company of Anna Danes has been teaching virtual workers those elementary things in order to increase the productivity of virtual teams.

Anna Danes: “ The work-life balance is a really big issue. People work from home or they have a little office or they have a co-working space, but when u are talking with people who work in distributed teams, they have so much freedom, that sometimes this freedom is hard to manage. For the first month people end up wearing pyjamas and they do not realize that it is not correct and they need to take a shower and get dressed to go to the next room, where your office is. So, in the work-life balance we have made all the mistakes possible, we teach you how to be a better online worker and how to separate your life, your free time and your work time. “

Teaching workers those basic rules is essential for the overall productivity of a project. Workers should understand that this is a full time virtual employment that requires the same amount of effort as staying watched in a feasible workplace. No project managers are going to deal with absent-mindedness, and irresponsible treatment of duties as this behaviour is simply inefficient.

Anna Danes: “ All the studies say that people working in online teams are more productive. I also see that we are more productive because of many reasons, because you feel like this is your project, you feel the pressure in a different way, and there are many things. But, I think, one of the things, which is negative is that distributed workers check their email all the time. If they get an email at midnight, they might reply. That is not positive, because at the end, in the long run, this worker will have a burnout and is going to be tired of his job. We teach that the worker separates his free time and the work time and they are not afraid to say: ‘No, I am not going to reply, even though I just saw it, I am going to wait until tomorrow when I wake up.’” Thus, we teach these things, that seem very basic, but because it is a new way of working, they are not.”

4.5.8 Virtual Creativity

Sometimes the product virtual workers develop requires creativity. At the same time a large number of virtual team members notice that social isolation kills their creativeness. Here experts’ opinions are divided. If Alice Hendriks finds staying creative difficult for her team due to a lack of face-to-face communication, Nina Tune does not think it is a problem at all.

Alice Hendricks: “ Yes, I think, it is not the easiest. It is easy to multitask and harder to stay focused. And brainstorming is more fun and more productive, when it is focused on one thing. So I encourage folks to do video charts and use brainstorming when everyone can collaborate and see the same document, so Google Docs is great, because everyone

can see what is going on there and share and interact directly, and pretend that it is a white board. We can have video, pictures of each other and have a meeting that way, so it feels more interactive.”

Thus, the variety of communication tools plays the most important part for maintaining creativeness. Nina Tune confirms the importance of collaboration on this issue. She also describes practical approaches that help her virtual team-members stay creative, involved and interested.

Nina Tune: “ I do not even think it [the lack of face-to-face communication] is a blocker. We have communication lines, they are all open right now, I am looking at my chat tabs - everybody is having a conversation about something right now. As far as talking to them, we do voice communication, hangouts, Skype. The other thing that really helps our creativity is a very certain particular scheduling system. We look at how much a developer does in a week, so we allocate about 75 per cent of the time is what you are working on. The other 20 per cent is a little internal project we are doing and this is a time for them to go and develop. Sometimes there are standard projects, and sometimes there is just an idea that somebody comes up with and they are working on it to make it a reality. And 5 per cent of the time we just spend on emails, talking to people. “

Ms Tune also states that her virtual developers have even more space to be creative online, weighing in with the argument from her personal working experience.

Nina Tune: “ I actually think that they have more chance to be creative here, because if you are sitting at the office (I used to be a developer, so I knew this) and you have a brainstorm and everything is great and you are getting interrupted every five minutes by the guy sitting next to you who needs help with something or by a project manager that checks with you six times per day to see what is done. It actually squashed more my creativity and my ideas, working in that environment. When I am here, I can just set my standards to doing something that is on fire and ignore my chat tubs and focus on what I want to do and make those things happen. And I know a lot of developers who work this way. So, I do not think it harms creativity and in fact, I think it helps it. There is so much breathing room to just do what you need to do.”

Nina Tune has a very different experience, while traditionally people working face to face have more chance to be creative as it is stated in theoretical part of the thesis. It is a great professionalism that some virtual workers get to the point when they can stay creative being online.

4.6 Crucial Aspects of Virtual Project Management

The question of what is the most important for a successful virtual project management has led to a variety of individual approaches and opinions. The truth is that all of them are crucial for a success. Thus, for Mikko I., the expert from Finland, the essential points are accountability and trust, for Nina Tune communication is everything, Anna Danes is sure that the virtual victory starts with a recruitment process; Alice Hendricks thinks that interpersonal relations and friendly environment are significant.

Alice Hendricks: “ It is a frequency of touching based communication within individuals. So I am a CEO and I am trying to make a point to talk to individuals one on one in non-work conversation as often as I can, just to make sure, they are doing ok personally as well as professionally. For example, when you are walking from your desk to the kitchen to make a cup of coffee you may pass one or two co-workers and stop and have a chat with them informally. When you run a virtual team you have to create an environment that is similar to that, that is easy for folks to chat with each other informally about non-work things, so that they can develop personal relationship with each other.”

For some project managers, the recruitment process is the fundamental aspect of any successful project, both virtual and international.

4.6.1 Recruitment Process

The Recruitment Process is the beginning of every virtual project. Hiring right candidates recruiter has to make sure the applicant not only has got ordinary professional skills and experience, but also such important aspects as English fluency and previous working experience in a virtual community. The worker has to provide excellent communication skills. For that purpose, computer literacy and technical skills is a must. Worker has to feel confident using a Basecamp or some other project collaboration tool. There are occupations like virtual web-developers or programmers that initially require a professional usage of software. Obviously, these people find it much easier to go virtual rather than ordinary employees. Alice Hendricks perfectly illustrates the difference with her comment.

Alice Hendricks: ‘‘ We are fortunate in it, our staff communications and Internet. We are developers, and we build websites, so everyone in our team is very comfortable using online tools for communication. So, it is not a learning curve to get them to communicate through chats software, forum or ticketing software or anything like that. The technical competency is already there. I can imagine if I was trying to build a virtual team in a non-technical company, I would have to work harder and train them for getting used to that. Also, new staff that never worked virtually before, we also spend more time with them. In the beginning, I am checking in with them often, usually on morning phone call. Even though they are not alone working, they are constantly involved in meetings, conference calls, Skype chats all day long, so it is very active and very vibrant and very busy.’’

The next aspects, the recruiter should point out, are the punctuality, availability and self-motivation of a candidate. How available is the person and how does his or her time zone affect that availability? How much does he or she enjoy working on their own, how self-disciplined are they?

The most common mistake the virtual teams’ recruiters make is hiring professional introverts who do not only enjoy working alone, but also hate working in a team, which makes trust and team building impossible. Anna Danes is sure that recruiter plays one of the main parts in the process of trust establishment within the team.

Anna Danes: ‘‘ For me, trust needs to be established from day 1 and it needs to be established from the recruiter. The person recruiting has to be trustworthy, understand the job, and have skills and other abilities. So, for me it starts with the recruiter, not from the manager. I think if the recruiter does the job well, then the manager has it easier.’’

Thus, Anna Danes applies some more pressure for a recruitment manager. In other words, recruit well recruiting your recruiter.

4.6.2 The Importance of Virtual Collaboration

Advanced virtual projects are based on progressive virtual collaboration. Undoubtedly there are workers who prefer to be given a task and left alone till the deadline. However, virtual team is a living organism and, like in a feasible team, from time to time workers

need help, advice and support of each other, so they need to communicate and relate to each other.

Nina Tune: ‘‘...Communication is everything, in fact, I would say we overshare. It is not like ‘I am doing this right now’’, ‘I am doing that right now’’, it is more like being verbal, talking, getting on Skype when you need to, just a way of sharing other information.’’

There is a difference between merely working together and truly collaborating with each other. Collaborative activities enable teams to come up with innovative and creative ideas, buzz-worthy marketing campaigns. Achieving true collaboration, in which individuals work as a team, is difficult in any environment. People have to overcome their egos, trust one another, and share their expertise gladly. In a virtual environment, collaboration can be harder to achieve, especially if team members work for different companies, are basically strangers, and have different cultural and professional backgrounds (Ferrazzi, 2012). The same situation happened to Kieran Beal’s team, which was involved into a virtual project with the teams from abroad.

Kieran Beal: ‘‘ Our project required a lot of collaboration, as each group from each university relied on others doing work parallel to ours, and if this was not completed, we were unable to continue working as we required information from all countries to be analysed before we moved forward. This became an issue when we suddenly stopped receiving any updates or communication from one of the groups, work ground to a halt for a precious few days and actually required my team to spend an entire weekend at university to catch up the work to keep us on schedule. Making sure all parties involved in a virtual project are collaborating together and sharing information (even if it’s negative information e.g. ‘I am unable to meet the deadline because...’’) is very important to the success of the project.’’

Thus, establishing inspirational cooperation and teamwork is a fundamental challenge for a virtual project manager and this way starts with the choice of appropriate collaboration tools.

4.6.3 Virtual Collaboration Tools

All the interviewed experts have achieved their own set of communication tools that their team-members find the most productive. Usually in long-acting virtual organizations this is a gradual process of trials and conclusions. However, basic communication tools like emails and video calls remain the most popular.

The responders of Virtual Team Management Questionnaire were asked to mark seven most usual communication tools used in virtual teams on the scale ‘used never-very rarely-rarely-often-very often’.

- **Sending e-mails** remain the most popular way of communication, 80, 5 % of responders send e-mails often or very often during virtual projects.
- **Running audio-conferences** is also very usual for ‘virtuals’, 68, 3 % of virtual workers said they use audio-conferences often or very often.
- **Video-conferences** are not that popular in comparison with audio ones. The majority of responders (26, 8%) use video-conferences rarely and only 24, 4 % use them often.
- **Instant Messaging** is very often used by 46, 3% of virtual workers, and 22% of responders chat often.
- **Extranet** is recognized as the most old-fashioned way of virtual collaboration, 65, 9% of virtual workers never use Extranet within the team.
- The information given on using **Projects’ Websites** is contradictory. 31,7% of responders often collaborate via project’s website, while 19,5% never do this.
- The same situation is with **Social Networks**: 31, 7% and 24, 4% of workers communicate via social networks ‘never’ and ‘very rarely’ correspondingly.

Thus, emails, audio calls, and instant messaging are traditionally the most popular collaborative tools due to their high speed and convenience.

Here are some techniques virtual teams of interviewed experts use for communication.

Kieran Beal: “ We used Skype, Facebook and Dropbox, as well as Microsoft group video chat software. This was the most helpful as it enabled all four classrooms to en-

gage virtually so we could have web “conferences”. As we were designing our approach to the project, these were crucial.”

Sy Holsinger: “ There is a couple online management tools you use: BaseCamp App, WikiMedia Pages, which provide you with an online web-page where you can get different people access to the project, and where you can keep documentation, scheduling, to-do lists, and this is a way to manage projects online. For some of our large projects we use this kind of tools, that are easy to manage, for a smaller, virtual tool sometimes you can just create a Wiki Page, where you host an information. For collaborative document production, it is quite easy to use Google Docs, and Google Spreadsheets that you can share with people. “

Keri Calhoun: “ We try to establish trust between team members via frequent instant messaging and VOIP [Voice Over Internet Protocol] calls mostly for work purposes, but sometimes just to say hi or talk about mutual, non-work interests, too. We have also established off-topic chat rooms so that folks can participate in group conversations not about work.”

Alice Hendricks: “ The same as we use with clients - Skype, Skype groups and chats, project manager can create a topic on chat and other people contribute to work getting done, Skype also allows screen sharing, that is very helpful and, of course, video, so we can see each other face to face when we need to.”

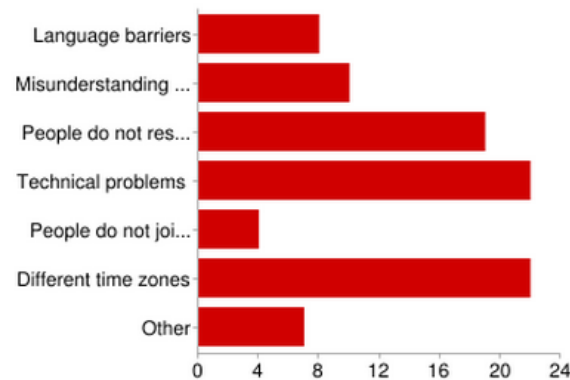
Thus, a large number of managers incorporate frequent group video conferences in order to substitute face-to-face communication. However, some virtual workers as Mikko I. find sending emails more convenient and efficient than conducting video conferences. Dr. John-Paris Pantouvakis agrees with Mark Curcher: “Nothing replaces face-to-face!”

John-Paris Pantouvakis: “Today’s sophisticated systems make it quite similar to hold a virtual meeting to a face-to-face meeting. But you cannot capture easily body language, grimaces etc. in a virtual meeting. It much depends on what is discussed and how difficult the subject is. For day to day operational issues, virtual meetings are perfect!”

4.6.4 The Importance of Right Collaboration Software

Standard virtual communication tools are great, but, as it was figured out during the survey, there are massive challenges connected with their usage. Figure 11 describes what challenges virtual workers face the most. The majority of responders (53, 7%) face technical problems and different time zones inconvenience. 46, 3% of virtual workers complain that people do not respond on emails on time, 24, 4% of workers face misunderstanding in emails and only 19, 5% of virtual workers suffer from language barriers.

What challenges do you encounter when using IT tools for communication?



Language barriers	8	19.5%
Misunderstanding in email	10	24.4%
People do not respond on emails on time	19	46.3%
Technical problems	22	53.7%
People do not join virtual meetings	4	9.8%
Different time zones	22	53.7%
Other	7	17.1%

Figure 11. Challenges of Using IT Tools for Communication

Project managers pay attention to the following aspects while choosing software:

- Low upfront cost;
- Accessibility via Internet;
- Free trial service;
- Software is customisable;
- Software is easy to set up and use;
- The availability of a mobile app;
- Clear pricing policy;
- Customer support;
- The security of data.

Most of these criteria should be considered for a successful software use. Aleksi Pulkkanen is one of the developers of Agendum Collaborative Platform, he has told about the product and its effectiveness for online collaboration.

- **The Need for Software**

Aleksi Pulkkanen: “ We have seen that people have been working online a lot by sending emails, attaching stuff to the emails ending up with long email spreads, where multiple versions of different files are going around and it creates this kind of problems, so we provide easy tools that you can set up to help you do stuff online with your team.”

- **Agendum Customers**

Aleksi Pulkkanen: “...The idea is that we collaborate online to offer this simple and customizable workspaces that everyone can create for the own team. The customers can be internal teams in the company, like project teams or sales teams, or they can be cross-organizational teams like company boards or some committees or non-profit. Or they can be consulting groups, for example, groups with a couple of persons from the company and a couple of people from the customer company. To help in this kind of groups where people do not normally work with each other every day, we have tried to offer online tools that are also secure to help them to do stuff online. That was the main idea, when we founded the company and it is the same still. ... ”

- **The Principle of Operation**

Aleksi Pulkkanen: “... I usually say that Agendum is a collaborative platform. If you have a team you can invite them to the platform and you can pick collaboration tools that you need in your teamwork. Some teams are about arranging face-to-face meetings, we have a tool for that, but other teams might just have non-official meetings and focus mostly on project management. We have different tools for a project management part, which is this kind of visual board to see things that are waiting in line next, priorities, what is not done, and what is in progress and this can be divided into tasks and shared within the team. So there are two kinds of help our software provides: project management and meetings arrangement. Then we have tools for file sharing to make online communication a bit smarter than just emails. So, you can pick a right set for a project and use it the way you want to satisfy your own problems, like not effective meetings, file sharing, misunderstanding. ...”

- **The Principle of Customization**

Aleksi Pulkkanen: “ Everything can be customized that is why we call it a platform. You can choose tools and their quantity as well as a visual look of your virtual workspace, so it shows your company’s logo when you invite people there. Customization is

what differs our product from all other project management software. You can customize the visual look, tools and the content of each tool. The idea is that there is usually only one admin in the group, who has to do all the customization and the others just arrive at the workspace, when admin invites them, they just take advantage of the features. It is customizable, but easy to use.”

- **“Easy To Use” Principle**

Aleksi Pulkkanen: “ Our approach is that you know best what you need, and we just make sure that the tools we offer solve your problems in a simple way, cause we do not want to make anything complicated, we are keeping it simple and productive. “

- **Pricing Policy**

Aleksi Pulkkanen: “ The other thing that makes us different is a pricing policy, you only pay for things that you need, you pick a tool and you are only charged for those, not for the amount of members you have for your team.”

That is an example of a virtual collaboration product, which is very successful in Finnish market at this moment. The local success drove the developers to emerge international markets as well. Basically, the success of this product is defined with all the discussed crucial aspects that were taken into account during project development.

4.6.5 Trust & Relationships Building

Figure 12 shows how diverse the opinions of responders are on the topic of trust and relationships building. It is generally recognized that it is more difficult to establish trust and a friendly working environment in a virtual team rather than in traditional one. However, 39 % of responders disagreed or totally disagreed with this statement, exactly the same amount of workers agreed or totally agreed with it. Only 22% said that there is no difference in trust and relationships building.

It is more difficult to establish trust and friendly working environment in virtual team in comparison with traditional team



Figure 12. The Difficulty of Trust Establishment in Virtual Teams

Despite the contradictory answer of survey responders, all interviewed experts agreed that trust building is fundamental for any team, and most of them said that it takes more time and effort to establish trust virtually. It goes very close with interpersonal relationships, the quality of collaboration, project manager's work, and cultural differences. This is the phenomenon that cannot be born over the night or one video conversation.

Alice Hendricks: "I think, that trust is the most important thing and you have to build a relationship in order to have it. You do have to spend time, building trust, but it takes the same amount of effort to build it over digital communication channels as in person. It might take a bit more time, but it is a doable situation."

Indeed, Cathy Smith is sure that the lack of face-to-face communication makes trust building take a longer period of time.

Cathy Smith: "It definitely takes a longer period of time to trust people and sometimes you even have to have a conference call to talk to that person to get a better feel of their affects and how they carry themselves. It helps more when you have a video-conference call, so you can understand and see the person's body language. When once trust is established, you are in a good shape, so I think it takes much longer to trust somebody because you cannot look at them and know what they mean."

Javier Jimenez is sure that trust establishment starts with the first introduction meeting.

Javier Jimenez: "We spend a lot of time in the beginning of the project to familiarise with our goals and milestones.

During the first call we have people introducing themselves, even though most of the people already know each other, this is something you cannot take for granted, that is an opportunity for everyone to get used to the partner's voice and the manner to speak....

I tried to establish trust by inviting team-workers to communicate, fulfilling the promises. If we agreed that something has to be done by the next call, making sure that task has been addressed, may be not always complete because it was not always possible, but at least, not forgotten.

I tried to create the environment where everyone was interested and welcome. ”

Virtual project managers assert that their trust building work is much harder to implement virtually. Anna Danes confirms that virtual environment applies much more pressure on this issue.

Anna Danes: “ Of course, trust establishment is harder in a distributed team rather than in face-to-face communication, when we can see the reaction of people, what they are doing all day long and manager can just walk into the office of somebody and chat with them. It is easier with a face to face team and with virtual teams trust is an issue. The manager of a distributed team always has to put an extra effort, always has to repeat things more often, has to check whether work is done well, has to do extra training, put extra effort into communication, has to be more nice they would be in normal office. The work of a manager is doubled or tripled, just because they are in a distributed team and trust is just one of the issues. For us trust is the very first thing, if you do not trust the person in your team, it is really hard to continue your work with that. So for me, it is very basic, you need to achieve trust.”

Anna Danes’ argument is absolutely convincing as project managers have to take into account that not all the individuals are sociable and easy going. For example, Mikko I. follows the approach when trust should be deserved through the experience of productive collaboration with his virtual assistant. For him this is not something taken for granted.

Mikko I.: “ Trust builds if the remote worker delivers. I do not manage the relationships, but I do know what to expect if I want to work with the same assistant again in the future.”

From a technical point of view, the proper software, facilitating the collaboration, leads to a decrease in conflicts and misunderstanding that are always the obstacles for trust and relationships setting.

Aleksi Pulkkanen: “ I think that trust building is a challenge for a virtual team, so our tool is very much useful on this perspective. Of course, you can say that it is mostly

about information sharing, but it goes deeper like working as a team, not just sharing information, but discussing, getting to know other person by doing stuff together, working tight on a certain topic and distributing tasks among people. I think when you can build an atmosphere of working together quite closely, even though it is a virtual team, you can build trust in a team. It makes it a lot more personal when you have this kind of workspace where it is visible how team workers look like and it is a personal space just for a team, not just sending emails, which is totally faceless. Thus, your personal virtual workspace becomes a trust building approach.”

Not only convenient software effects relationships establishment, Cathy Smith emphasises the importance of the tone workers use in their emails and how important it is to be careful in your messages.

Cathy Smith: “ I manage the learning management system and someone says: “Can we share the power points with the associates?”, I say “Noooy”, because we cannot do that, and I get a message back: “Oh, how do I say it in a nice way?”, then I just need to emphasise the point, because even if I wrote it in small letters and I am being kind of playful about it, she took it as a “NO.” And that was somebody I had worked with for at least four months and had a lot of contact with. So, just be careful of how you respond, sometimes response seems short when you are trying to be professional. We get so many emails, and some people do not read emails fully, so this is one of those things you have to be careful about, because people are reading into your emails and even though you think you presenting your opinion or statement one way, people can take it another way. “

From the recruitment side, Mark Curcher has noticed how easy it is to check whether the candidate is trustworthy.

Mark Curcher: “ I think one of the things about trust in the virtual environment is very easy now to check out what people tell you about them. If you were to tell me you were an expert in something, I would not have to take very far to find out whether this is true and whether you have really done the things you claimed to be done. At the same time, if someone is working with me, they can really quickly google my CV, the things I pointed I have done and so on. And they can contact even other people, who worked with me, when before those things were so much harder to get.”

The second aspect which is very important is based on business connections. There are people you trust and they have colleagues they trust and might recommend, so you instantly prefer those candidates, whose recommendations are more trustworthy.

Mark Curcher: ‘ ‘ Trust still does take time to develop. I mean, there is no instant trust with somebody; it comes from the results and contribution. There are two things: one that I have already mentioned, that you can check out the things, the other thing comes from the network. We now have much more intensive networks, than we previously had. Let’s say a new person, whom I do not know, whom I am going to call person A. I have never worked with that, but I do know person B or C, with whom I have worked before and I trust. I know if this person is good enough to work with B and C, they would be good enough to work with A. First of all, you have to see what people have done from the virtual footprints on the web, what they have actually done, and their real work. And the second thing is who they have worked with. Do I trust people they have worked with? ‘ ‘

All the experts took the question of trust establishment differently and provided various ideas how to manage trust and interpersonal relationships. The only statement they agreed on is that trust is easier and faster to establish face-to-face.

4.6.6 The Importance of Face-To-Face Communication

The responders were asked about the way their trustworthy friendly relationships were built during their virtual projects. Figure 13 shows whether face to face introduction meeting is essential for trust establishment. The majority (53, 7 %) said it is possible to manage trust without face to face meetings, but it takes more time and effort, and the other group (43, 9 %) just agreed with the possibility.

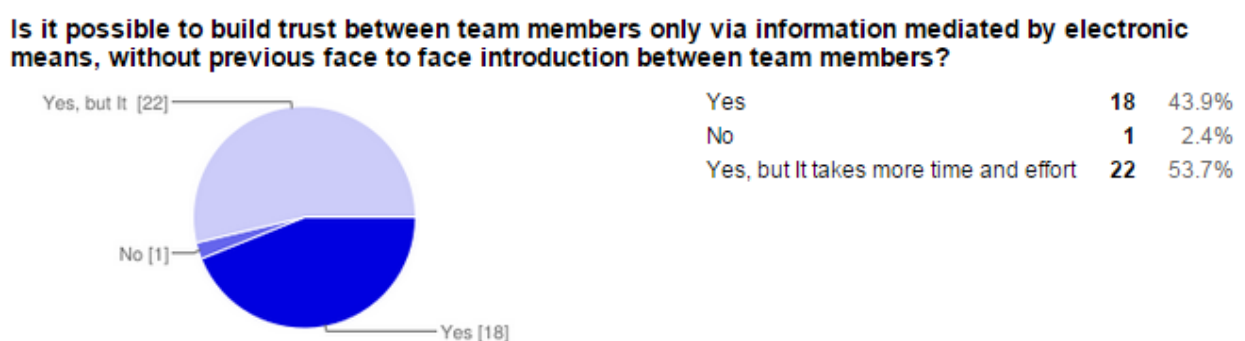


Figure 13. Trust Building Possibility in Virtual Teams

The other question in ‘Trust Building’ section of the questionnaire was about responder’s opinion on arranging periodic face to face meetings between team members. Figure 14 illustrates that the majority of virtual workers (43, 9%) found periodic face to face meetings very important for accomplishing team aims, 39% of responders agreed that periodic face to face meetings provide faster trust building between virtual team members and only 4, 9% said that it is the waste of time and money.

What is your opinion about periodic face-to-face meetings between virtual team members on the same place?

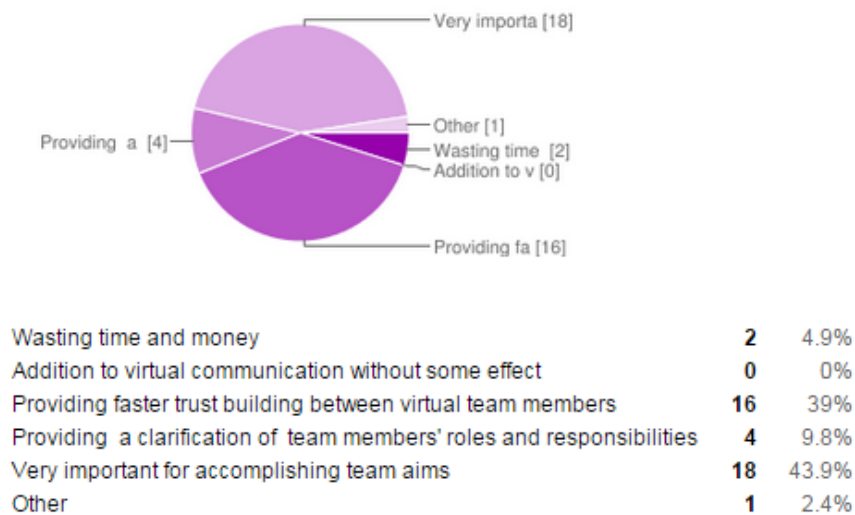


Figure 14. Periodic Face To Face Meeting Essentiality

The opinions of interviewed experts were quite diverse as well. Some were encouraging face-to-face meetings and are happy to invest in it, others were sure it is a waste of time and money or simply do not find them necessary. It depends on different project management approaches and team needs.

Keri Calhoun: “ We have bi-monthly all-team meetings, and each manager touches base with her/his full team at least weekly, oftentimes more. Additional personal meetings are held when needed for work purposes - this is generally multiple times a week and not as efficient as I would like...”

Alice Hendricks: “I think it is not essential, but it is encouraged. If there is a possibility they can get together, we encourage it, so we pay for the co-working space, for example. “

John-Paris Pantouvakis: ‘‘ I have experience of both local (from one country) and international teams. For the latter I still prefer face-to-face meetings or at least a combination of virtual and face-to-face meetings. I would recommend 3 virtual meetings to 1 face-to-face meeting. For the former (common language and cultural setting), virtual meetings to face-to-face meetings can be 5 (or more) to 1. In general, I prefer face-to-face initial and closing meetings with virtual meetings in between. Also, complex arguments are more difficult to communicate over a virtual meeting.’’

Mark Curcher: ‘‘ There is nothing that replaces face to face, nothing, so if it is possible to meet face to face, then yes. If it is possible, they are always better, but of course, they are much more expensive in money and time. But if I travel to one of those countries, even for another reason, I will try to have face to face meetings. To give you a real life example, I went on holiday to Dubai when I was on vacation, I still took the time out of my vacation to go meet face to face somebody I am working with, because there is nothing that substitutes for face to face contact. So, if you can do it, you should do it. So, it was worth giving a part of my vacation to go and meet this person, have lunch with them. That can motivate, that keeps me motivated and even getting an extra time from work on doing it is worthwhile. So, nothing beats face to face, that is true. ‘‘

Both Sy Holsinger and Javier Jimenez agree with Mark Curcher: nothing can replace face to face.

Javier Jimenez: ‘‘ Face to face communication always helps especially if people do not speak the same language, it is always helpful to see each other’s faces.’’

Sy Holsinger: ‘‘ In case of virtual teams, no matter, how much you can reduce expenses from the perspective of travel and travel costs and time, it will actually never replace face to face. So, even in a large scale we still organize face to face meetings very often. One of the smaller projects I was involved in, we tried to do face to face once per 2 or 3 months.

So, in terms of a large scale project face to face is once per year and I am not sure it is enough, but I have had some smaller virtual teams, like scientific disciplines once and we have never met face to face. I think that still you have to sometimes meet together and have discussions face to face; I do not think it can be replaced, but I think virtual

teams provide a higher return on investment as you can get a lot of good people in a team and answer any type of scientific problems. For my point of view, it depends on a scope and a scale, but I think you need some type of periodic face to face.

All the projects we have, there is always travel budget included in the project. Depending on the scale of the project, European Commission has some rules and regulations about traveling and things like that and typically there is a rule, if your travel budget is more than 15% of your overall partner budget, than it requires a justification.”

Taking into account that virtual projects might be different, for example, workers have to volunteer as a part of their studies. In this situation, project manager has understand and accept the fact that some students might be more motivated and driven and others naturally put less effort. Kieran Beal has an experience of managing this kind of international virtual project.

Kieran Beal: “ I found it is far easier for people to avoid work by just not replying to attempts to communicate with them than they would if working face to face.”

Anna Danes has the most contradictory opinion to the rest of the experts, which perfectly works for her team as she proves it with the following practical argument.

Anna Danes: “ I think face-to-face communication is great, but it is not always needed. When you have to work with somebody virtually and you need a face-to-face communication, it is a real emotion. In normal offices it is not so emotional, so I do not see a need here. We have worked with hundreds of workers and we did not have to see each other, so it is not necessary for a company to have them, not at all. Video conferences are really, really nice, this is something not expensive and works very well. If the company has money to send workers from one side of the world to the other, I think, it is great that they do it. I do not think it is a waste of money, it is a good way to invest the money, but I do not think it is necessary. It is possible to work with people we have never seen, to work with for a very long time. We have workers we have never met for 5, 6 years and we are still working together and we are really attached to each other. I think it is possible to do it without ever seeing the other person face-to-face, but you really have to work on communication. You have to do meetings, you have to do celebrations, you have to get together and put much more effort, just because you do not spend money on airplanes.”

As it was mentioned in theoretical framework, face- to-face communication is a very uncertain question, both experts and survey responders provide diverse opinions, which are obviously depend on human element and personal working experience.

4.7 Professional Advice and Techniques/RECOMMENDATIONS

At the end of an interview most experts were asked to give a personal advice to a beginning virtual project manager. All the replies summarised the main aspects of virtual management and concluded favourite techniques that experts personally found useful and efficient in practice.

- **Be a professional manager**

Jessica Lipnack: “ Good managers are simply that: good. One has to pay very close attention to people on their virtual teams lest they feel they are being ignored or not encouraged to do their very best work. Some writers and researchers have gone to great lengths to prove that virtual team management is different from in-person management. I am not one of them. While there are some peculiar aspects to managing people from afar (being more intentional about contact, for example, since there is no cafeteria for bumping into people), the principles are not all that different from good management in general. Pay attention, be kind, be encouraging, continuously refer to purpose, use multiple forms of communication, reward people for good work, recognize excellent teamwork, lavish people with meaningful praise when they far exceed expectations, continuously examine your own behaviour, freely admit mistakes, learn how to apologize in a genuine way, and continuously educate yourself on cultural differences. “

- **Value virtual workers and let them professionally grow**

Keri Calhoun: “ Check in with virtual employees - informally - daily. Schedule weekly check-ins that are more formal, and keep to that schedule!!! This is the first step in assessing whether or not your employee will or can thrive in a virtual environment. Send virtual employees tangible treats and include them in birthday and life celebrations. Be sure to also let “virtuals” lead projects and meetings so that they have an opportunity to grow and lead. Finally, provide regular opportunities for career enrichment and advancement, and require that these opportunities' key take always be distilled down to the

rest of the team so that everyone benefits and the virtual team member is given yet another outlet to shine and be part of the team.”

- **Be patient and clear**

Kieran Beal: “ Running a virtual project is very different to a face to face project, and should not be treated the same way. Always be available and ready to talk about the project, as people may approach you at any time. Stay patient if people do not understand initially (especially in an international environment). Also be prepared to either work very hard to build strong bonds between the virtual groups, or prepare to deal with issues regarding work output with frank, honest words. There is no point being vague and unclear in virtual project management, as it will only make things slower for everybody.”

- **Stay in contact with each other**

Mark Curcher: “ Communication is very important. I always try to respond to every single message, whether it is an email, telephone call or text message, whatever it is. I always try to reply very quickly, even if it is only to send back a smiley face or thumbs up, because I think it is really important people know that you have heard them, that you received the message. To give an example, even if I am tired and I have not got time to go back to them with a full answer, I still send a message saying: “I got your email, I will reply to you in three days” or “I have got your tweet, I will be back to you in an hour”. This is really important that people do not get silence, so this is my only secret to always try and keep communication flowing like playing tennis. If you want a guy to continue, you have to be able to hit the ball back over the net and keep it going. If you let the ball fall, then the whole thing stops. “

- **Use an individual approach**

Javier Jimenez: “ The problem was that sometimes people remain silent; it is always like that during the meetings. There are always some people, who communicate more or who are eager to give their opinions and participate. In order to make conversations more meaningful, I try to have individual conversations by Skype with those people, and in this way it is easier to understand people’s problems, opinions.

Especially in the end I tried both general meetings and personal conversations with team workers....

Create a good environment, invite people to participate, make people feel comfortable, work hard to make things run. ‘

- **Find your management style**

Nina Tune: ‘Actually project management for me is a point, I know there are official project managers, they get POP certifications and all these rules and guidelines and meetings and structure documentation, they track everything and it might work great in a large corporation. I found it a complete waste of my time, so for me when you are a project manager at SitePen, you do not do everything by the book. There is a general guideline: you need to know the plan, when the things are going to be done and that is really all that matters. If the thing that we usually do is a waste of time, we do not do it and we do an alternative. One of the things that work for us is that we band, we flex, and we change all the time. Some things we tried, they were horrible, nobody liked them, and we come up with an alternative.

So my advice is go with what works and do not be so disappointed about the rules of project management. I will probably never get hired at another company as a project manager because of the way I manage. And it does work: I have not yet had a failure of anything.’

- **Know your team**

Nina Tune: ‘I know my team when I come in, I know their personalities, who they are, what they are like, I know how they work, because everybody works a little differently. We have got a guy, you give him a task and you are not going to hear from him and then he says: ‘next’. We have got a guy, when you give him a task, he stands around looking confusing, worrying about how to put it in a code. So, I analyse everything, I think of when it is going to work best for a team as far as management planning, because there are different projects. We had one project when we had to follow the tasks and stand on top of the timeline, when another project: we just kind of meet once a week and say ‘ok, this is on track, this is on track’ and I give them targets for the next week and I leave them alone.’

- **Recruit well**

Anna Danes: “ To recruit well. If they recruit well, they will have half of work done, after that a very hard work starts: doing things, so employees feel like the part of the company and empowering your workers through providing positive feedback. But recruiting is very important and your goals- are clear, very clear. “

- **Get together if you can**

Alice Hendricks: “ We all get together for a week every year and we rent a very large house, so we have time together to work face-to-face and to have a downtime to play and hang out. I think that this is important. I also try to bring functional team members together, so if there are people working on the same project, we try and meet face-to-face. A lot of virtual organizations do retreats more than once a year and it is very expensive because you not only have to pay for a travel to go to the place you are also missing clients during that time, so it is an expensive prospect. It is a cost thing, but it might end up the same as if you were to pay an office rent... “

- **Manage information**

Sy Holsinger: “ You need a place to host an information, whether it is a Wiki Page or a management tool, you need a mailing list to set up all the people to have one email communication, you need a place to host documentation and scheduling calls can be quite tricky to get everybody at the same page, so there is a very nice online system, which is called Google Doodles. So, we use a Doodle tool for scheduling online meetings if we can meet at a fixed time, once or twice per week.”

Hopefully, these recommendations will be useful to familiarize with for virtual project managers, project management lecturers and students.

5 SUMMARY AND CONCLUSION

The theoretical framework was built with the use of literature written by virtual project management experts. Management concepts, definitions and strategies were sorted from over 30 various resources, such as textbooks, journal articles, web-pages so on. The result of the theoretical review was defined with its main topics: the development of knowledge worker, the definition of virtual team, its benefits and challenges. This particular content was deliberately formed to provide the reader with theoretical knowledge for the practical part of the thesis.

The empirical research came along with the theoretical framework. Moreover, interviewed experts were providing the research with new topics and perspectives of the subject, which allowed to expand the theoretical data and add new detailed information to the practical part. The core material was provided by 14 interviewed experts that have been selecting and interviewing for the period between October 2014 and May 2015.

Based on the outcome of interviews, the structure of thesis was finally formed and developed to its current stage. The data of simultaneously conducted online questionnaire was also used in this paper to support and analyse expert's arguments and opinions.

Thus, the empirical outcome provided the reader with the expanded and supported with arguments model of virtual team concept from the perspective of a team-members and team-managers. Thus, in theoretical framework we got familiar with pros and cons of running virtual teams mostly for virtual workers, companies, virtual organization, sponsors and states, while empirical part of the work was mainly focused on virtual project management's obstacles and privileges as well as the most important assets of this project- virtual project management techniques.

During the research the following extremely important questions were answered:

- What is the historical development of virtual employment?
- What are the crucial aspects of virtual project management?
- Are virtual teams more efficient than traditional ones nowadays?
- What are the main practical benefits of running remote projects?
- How to deal with such productivity killers as social isolation, the lack of virtual motivation, conflicts based on misunderstanding?
- How to manage work-life balance and trust building virtually?

- Is recruitment process important for a future success of a virtual project and trust establishment?
- How to collaborate virtually in the most productive way?
- What communication tools to use managing remotely?
- How to choose right collaboration software?
- How to manage technical difficulties?
- Is face-to-face communication essential for a success of virtual project?
- What are the specific virtual techniques and professional secrets do experts have?

By figuring out how to overcome all the challenges, finding out virtual project management strategies and collecting professional the main research question was answered.

According to the research outcome the main reason why virtual teams exist are the access to a wider pool of talent, space/comfort, and reduced costs. If one project managers are sure that the reduction of costs should not be the core reason for running virtual teams, others point this privilege out as the first cause. Access to a wider pool of talent is traditionally the main reason in such industries as web-development, language translation, and creative writing in different languages. Because of different language proficiency it comes along with reaching various global markets simultaneously. Space and Comfort become crucial points for virtual employment in general, mostly from the perspective of virtual workers. Working from home leads to a family friendliness and better relationships with relatives as there is more time to spend with them. However, this freedom might be hard to manage as it requires the high level of self-discipline and time management skills. This is why recruitment process is so important for a virtual project's success. It is the responsibility of a recruiter to not only select the most talented candidates, but also make sure they enjoy working on their own, self-motivated enough and are able to collaborate virtually in a productive way. Candidates' working language proficiency and computer literacy should be at a high level, as productive collaboration is everything for a success of a virtual team. The environment should be the same, people should communicate to each other if they have a need for help or just to discuss non-work stuff to build trustworthy friendly atmosphere as they would do at the common office. The lack of face-to-face communication should be such as video conferences and interactive meetings. According to the conducted online questionnaire the most com-

mon ways of virtual communication nowadays are sending emails, conducting audio calls, and instant messaging. Younger generations, like students-freelancers, prefer using social networks, e.g. Facebook, while more organized virtual workers communicate through project's websites. Video calling is surprisingly not extremely popular, even though interviewed experts insist that it is a perfect way to substitute face-to face communication. Extranet seems old fashioned and not popular anymore. Face to face communication was the most dispute topic and still an open subject to discuss. Questionnaire responders were divided into two contradictory groups. Ones did not find periodic face-to-face meetings essential for trust building and the future success of a virtual project, others insisted they are necessary. The same happened with interviewed experts' opinions. If one project managers are ready to invest time and money renting cottages for their teams to meet up, others think it is a complete waste of resources. However, they all encourage their workers to get together if there is an opportunity, because nothing replaces face-to-face. It is essential especially in large-scale or/and long lasting projects, because personal meetings massively speed up trust building and interpersonal relationships development.

Obviously, face to face meetings are not always possible due to different time zones and high travel and opportunity costs. In situation like that an intensive online collaboration is the only way out of the situation. Very often large scale project teams cannot manage with only ordinary communication tools. Virtual workers need appropriate collaborative software to host an information, documentation, emails, meetings and calls schedule, individual tasks, milestone calendar, agendas. In this thesis such a collaborative platform that covers all the above project management needs is provided by Aleksi Pulkkanen, the Agendum software developer, who points out that a right software not only helps to manage, but also avoid conflicts based on misunderstandings in emails and unproductive communication.

The most usual problems, virtual teams face, are different time zones, technological difficulties, social isolation and the lack of face-to-face communication. The problem of different time zones is quite standard for dispersed communities. Sometimes it can be solved with recruitment regulations, as it happens in the USA, where recruitment managers hire remote workers from different states within the same country. Another way out of situation is outsourcing, if the talent from abroad is necessary. Interviewed project managers were mostly concerned about relationships between virtual members and their personal state and wellbeing, which affect the productivity. Sometimes family

friendly employment vice versa leads to social isolation, which is hard to manage online. This is the responsibility of both project manager and an extrovert team member to deal with isolation. Even if you do not have an office to collaborate with team folks, there is a large number of co-working spaces, cafes and locations. The productivity of the project should not be harmed with personal problems of the workers, no matter whether they work in a virtual organization or feasible workspace.

The last thing that seems quite challenging is creativeness in a virtual environment. Creative environment implies a brainstorm, getting together, and writing on a white board. Project managers try to substitute all of this with video conferences, which certainly works. Some project leaders even emphasise that creativity is not an issue and their virtual workers have even more chances to be creative from home.

The last question for every interview was always the same: ‘‘ What would you suggest to the beginning virtual project manager?’’

The answers were very diverse, but the main agreement is that a good virtual project management starts with an excellent project management. Professionalism of a leader does matter, including not only organization and planning, but also individual approach to every worker. Project manager has to know his/her virtual workers, their specialities, strengths and weaknesses, personal style of work. Some managers suggest individual calls with employees to make sure he/she is fine both personally and professionally.

Project manager should also be able to manage professional isolation, providing an opportunity to grow and develop by knowledge and information management. The opportunity of promotion helps to make workers feel valued and appreciated.

Organizational questions are very important, clear goals, project objectives and deadlines are essential for a project’s success as well as for employee’s full involvement and motivation.

And, of course, if there is an opportunity to get together, it should be used to make the most out of it.

These are the main outputs of the research of the project. Following these rules massively increases the productivity of virtual project as well as employees’ satisfaction. As, Sy Holsinger mentioned, poor management is the main reason for a virtual team to break down. Thus, let project managers learn and deliver the best results.

In conclusion, the future of this work seems to be very promising as Tampere University of Applied Sciences is working on the new Master’s Programme in Project Manage-

ment fully taught in English and one of researchers of this project has already contacted to get more information about the subject of Virtual Project Management as well as the copy of this thesis. There is a great hope that the material provided in this work will help to establish one more course for this Master's Programme called 'Virtual Project Management'. As an author, I promise to do my best to make this come true.

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APPENDICES

Appendix 1: Biographical Characteristic of Interviewed Experts

№	Expert's Name, Occupation and Country	Professional Characteristics
1	<p>Jessica Lipnack, the CEO and a co-founder of NetAge, Inc.; writer USA</p>	<p>Jessica Lipnack is CEO of NetAge, which she co-founded with Jeff Stamps. NetAge's pioneering initiatives are in use in companies, public sector organizations, non-profits, and religious denominations around the world.</p> <p>With Jeff, Jessica is an author of <i>Virtual Teams</i> (Wiley)—along with five other books, including <i>Networking</i>, <i>The TeamNet Factor</i>, and <i>The Age of the Network</i>—that have been translated around the world. Noted and newest writing includes “The Virtual, Networked Organization,” in <i>The Handbook of High-Performance Virtual Teams</i> (Jossey-Bass, 2008); “The Strange Beauty of Virtual Teams,” <i>Milestone Quarterly Journal</i>; and “The Easier Way to Work: Collaborating in World-class Virtual Teams” (<i>Cutter IT Journal</i>). The landmark article, which Jessica and Jeff wrote with two business school professors, “Can Absence Make a Team Grow Stronger?”, (<i>Harvard Business Review</i>), reported on best-practices in “far-flung” teams (<i>All American Speakers Bureau</i>, 2014).</p>
2	<p>Keri Calhoun, Vice President of Strategy at BatchBlue Software LLC USA</p>	<p>Keri Calhoun serves as Vice President of Strategy at BatchBlue Software LLC Ms. Calhoun is responsible for the planning and execution of all product development and oversees product testing and implementation. She started her tech career with Amazon.com in 1996, where she helped establish, train, and manage Amazon's first telecommuting program for customer service reps. She provided technical and account support for The Cobalt Group and Q/A and operational support for InsureMyTrip.com. She holds a BA in English and Writing from Framingham State College and an MA in Secondary Education from Rhode Island College (<i>Bloomberg L.P.</i>, 2015).</p>

		<p>Batchbook Company team is distributed and Keri Calhoun is a part of it. This company helps small businesses manage and grow customer relationships. And it is happy to let staff work from home, but it has a few rigid requirements: “Must love the Internet, having a flexible schedule, and donut cake.” (Reynolds, 2015).</p>
3	<p>Mark Curcher, Educator, Speaker, E-Learning and Distance Education Expert, Teacher Educator, mentor and coach, Program Director in Tampere University of Applied Sciences, UK, Finland</p>	<p>Mark Curcher has got a massive experience of running international educational projects virtually.</p> <p>Mark Curcher: ‘’ An Educational Émigré and Pedagogical Provocateur, my passion is helping and supporting people as they grow and develop.</p> <p>I am Program Director of the 21st Century Educators Program at Tampere University of Applied Sciences in Finland. I have more than twenty five years’ experience as an international educator, teaching finance and economics courses in a variety of institutions in Europe and the Middle East before becoming involved in teacher education, professional development and the implementation of educational technologies to enhance student learning eight years ago.</p> <p>I have a Master’s Degree in Online and Distance Education and a wealth of experience working online as both a learner and a facilitator.</p> <p>My interests include teacher professional development, authentic e-learning, educational use of social media, learning communities, teachers’ professional identity and the utilization of video to improve formative assessment feedback.</p> <p>I enjoy public speaking, facilitating workshops, coaching and mentoring, helping people to fulfil their full potential.</p> <p>I serve on the Executive Committee of the AACE E-Learn Conference and the Microsoft TEI Higher Education Advisory Board’’ (Curcher).</p>
4	<p>Alice Hendricks, The CEO of Jackson</p>	<p>Alice is an accomplished executive with 14 years of leadership and management experience helping non-profit organizations resolve complex organizational and technological problems.</p>

	<p>River Company</p> <p>USA</p>	<p>Alice provides coaching, technology consulting, process design, change management and staffing strategy to some of the top leaders and pioneers in the non-profit world. Alice is versed in cause marketing, online fundraising, websites, social and mobile strategies, marketing automation, and brand empowerment for non-profits. Alice's work is informed by the latest in supporter and donor engagement strategies and tactics, the ever-changing landscape of technology and tools, and the diverse operational models of different types of non-profits. She has particular expertise with leveraging the emotional intelligence and wisdom within non-profits and takes a holistic approach to organizational change. Alice works with Jackson River clients on management consulting projects, building highly functional teams, choosing effective software, and designing processes for maximum efficiency. Prior to founding Jackson River, Alice was VP of Client Service at GetActive software and a Managing Partner at Kintera (both now Blackbaud) (Jackson River).</p> <p>All the projects of in Jackson River are virtual; team-members always work away from the client.</p> <p>Alice Hendricks: " We do not have an actual office, I mean, we have an office with four people, but our team is 30 people and everybody works virtually from home. "</p>
5	<p>Mikko I.,</p> <p>Entrepreneur and co-founder at Ambr***** Inc,</p> <p>Finland</p>	<p>At the desire of an expert, his personal data will not be discovered in this work.</p> <p>Mikko was interviewed because he is an expert in keynote presentation on the use of Virtual Assistant (VA) utilization, future of work, crowdfunding and quantified self.</p>
6	<p>Aleksi Pulkkanen,</p> <p>Entrepreneur, Co-owner at Agendum</p>	<p>Aleksi Pulkkanen: " I am a web start up entrepreneur. I want to build simple software that makes it easy for people to collaborate online. Software that normal people get and love to use. I am also passionate about web marketing. The endless possi-</p>

	<p>Ltd, Finland</p>	<p>bilities and the tough challenges of standing out from the pack fascinate me. I am also an advocate for freemium pricing and have researched the specialities of business models with freemium.</p> <p>I have always been inspired by doing things internationally. International business, collaboration and people – they are such cool things. I love striving to help international students in Finland and of course making an international success story of our current start up - Agendum.</p> <p>Agendum Ltd helps organizations be better by giving ideas and providing the tools for improved online collaboration.</p> <p>We are different in our flexible approach. We let each team customize Agendum to create the perfect online workspace for them. Admin can select the needed collaboration tools, come up with the right terms and tune the visual look to feel right. When you combine this with our dedication for simplicity, great customer experiences and enterprise-level data security – that is a software people actually want to use.</p> <p>Agendum's current collaboration tools include group communication tool, meeting arrangement and documentation tool, file sharing tool and a project status map tool. We are continuously coming up with new ones.</p> <p>As the COO and Co-Owner of a growing start up, my role includes just about anything - from sales and marketing to R&D planning and others'' (Pulkkanen, 2014).</p> <p>Agendum Platform was used as an example of good collaboration software for virtual teams.</p>
7	<p>Anna Danes, The CEO of Ricaris Have a Nice Day SL. Spain</p>	<p>Anna Danes: “ I worked with several Internet start-ups before founding Ricaris in 2009, a successful Internet services company.</p> <p>Having worked and studied in different European countries, Asia, and the USA, I have a multicultural take on business.</p>

		With my experience managing distributed teams and my firm beliefs that enterprises are responsible for creating a better world and work environment, I have recently co-founded Managing Virtual Teams, a new company offering bite-sized courses, virtual team activities, and consulting packages for companies dealing with remote staff” (Danes, 2013).
8	Cathy Smith, LMS administrator at InSync Training LLC, USA	Cathy Smith is a part of InSync Training team, which exists for last 15 years; Cathy joined the company 3, 5 years ago. Due to an industry the company operates in, employees make a lot of virtual connection and collaborate virtually with clients and each other. InSync Training LLC provides a large number of educating services on how to work and manage online, such as the mobile, global virtual classroom workshops, highly effective virtual teams workshop, learn how to learn online workshop, survival school for the modern virtual classroom, and so on (InSync Training LLC, 2015).
9	John-Paris Pantouvakis, Professor of Construction Management at National Technical University of Athens Greece	Dr Pantouvakis has got an experience of having both local and international teams, participating in virtual meetings. He provides an interesting opinion on different topics of this thesis as an expert who found out the difference between virtual and traditional teams, their pros and cons.
10	Nina Tune, Project Manager in SitePen Inc. USA	“ SitePen is a rather unique company. For those of you who do not already know, everyone in our company works from home. We are all spread across the United States. Despite that, the magic of our culture is that we feel closer to our co-workers at SitePen than at our previous office-based jobs. How is that even possible?!? We have grown together (think Katamari Damacy) through phone and online conversations and the virtual office we share is a very real thing for us. However, as a result, most of us have not seen each other’s faces before. Unplugged was a

		<p>treat for everyone as it gave us a week to indulge in the opposite end of the social spectrum. No electronic devices, only face to face interactions and (gasp! frightening, I know) eye contact! Hey seriously, stop looking at the floor... I'm up here!" (Heasley, 2014).</p> <p>In this unique way SitePen team works for last 14, 5 years already. Team members have reached the highest level of understanding and become a family by this time. Nina Tune greatly contributed to this work with her project management techniques and secrets, which allowed this virtual organization to become so successful.</p>
11	<p>Tomáš Rygl, Project Manager at the International Sports Retail Branding Project Czech Republic</p>	<p>Tomáš and Kieran have been managing the same International Sports Retail Branding Project.</p> <p>The project involved building an international sports retail brand (with accompanying Market Research), and was spread across 4 universities in 3 different countries, two in the Netherlands, one in Czech Republic and one in Tampere, Finland. Around 50 students in total were involved. Thus, Kieran Beal was a project manager from the Finnish University and Tomáš managed the Check teams. Both students have to co-operate</p>
12	<p>Kieran Beal Project Manager at the International Sports Retail Branding Project UK, Finland</p>	<p>with each other virtually as well as managing the work of each other's teams, Dutch colleagues and one more team from another Finnish Polytechnic remotely. It was a great virtual management experience for both of them and they were happy to share it in this thesis.</p>
13	<p>Sy Holsinger, Senior Strategy & Policy Officer; Business and Project Consultant; Certified</p>	<p>Sy Holsinger: " I work in European Commission Funded Research and Development Projects. The European Commission submits calls and proposals for very specific projects, which have a very specific budget with very specific topics and you put together what the Commission is looking for, so what the commission likes sometimes is to have a European coverage, so</p>

	<p>ITSM Trainer at EGI.eu and European Commission Funded Research and Development Projects Italy/USA</p>	<p>typically you have to have a number of different countries that are part of your project. This immediately suggests the distributed environment, so that was one of a very large scale project and I worked in several dozens of these projects over a course of 10 years now. ...</p> <p>My company co-ordinates this on European level.</p> <p>One of the services we provide, this kind of virtual teams, that we have a wide range of expertise around the communities that are working in the variety of different scientific disciplines, whether it is biology, chemistry, astrophysics, so on. Whenever people come in, they sometimes need help with their scientific problems and the lack of skills available. So, what we do is putting together the team, contacting all the experts, either in technological field or a scientific discipline and we build a team in a short-term project, where we get people together, identify the problem, and then provide the service. So, there are 2 different levels: project management on European scale and short-term virtual teams that solve very specific problems.”</p> <p>Sy Holsinger has a great experience of running remotely. The largest project of 40 members was spread across 54 countries and smaller projects were conducted across 6-8 countries.</p>
14	<p>Javier Jimenez, Business Development Expert, Virtual Team Leader at EGI.eu Spain</p>	<p>Javier has a degree in Biology with major in Genetics, but as many of his peers has developed his professional career over the last 15 years as an international business consultant, with focus on market entries and channel development (EGI.eu, 2014).</p> <p>On the basis of EGI.eu he has been managing a large distributed project called VT Business Engagement in 2014; he has got an experience of managing virtual workers of different nationalities from over 12 countries.</p> <p>In overall, he was a project manager of 12 large dispersed projects.</p>

Appendix 2: Interview with Jessica Lipnack

Name: **Jessica Lipnack**

Company: NetAge, Inc.

Occupation: CEO, writer

Industry: consultancy, education, software, and IP licensing

Country: West Newton, Massachusetts, USA

Establishment: 1998

Interview: 18 February 2015

You are one of the first people, who recognized the tendency of virtual team management. Couldn't you tell more how and when it happened? Was there any particular reason why you decided to write a 'Virtual Teams' work on this issue?

Virtual Teams was the fifth book I'd written (with the late Jeffrey Stamps) on distributed, boundary-crossing organizations but the first written after the Web had begun to take hold as Internet penetration had reached most countries in the world. For the first time in history, people had the infrastructure needed to work seamlessly regardless of their physical location.

What can you say about 'now' and 'then'? What aspects have massively changed in virtual teams industry over the time?

Work has changed dramatically in the past two decades. Whereas once "knowledge workers" could do very little if they weren't in the office, now they often wonder why they have to go to the office at all. It's hard to picture what it was like: the "important" people spent most of their days in offices around the rim of buildings, while the people who reported to them were in vast barns in the middle. By the 1970s, these rows of desks started to be separated into cubicles. People worked in their "stovepipes," communicating principally with those in their "departments." Then, with the rise of the Internet, it became obvious that greater communication, more collaboration, and cross-organizational cooperation could radically improve innovation, creativity, productivity, and implementation. Very quickly, the walls literally started to come down and with them cross-boundary work became the norm. Once that began, geography became less

the definer of co-workers than purpose, which brought disparate people together regardless of who they were working for.

Was it hard for traditional workers to switch to distant work and accept it?

As with any innovation, some people took quickly to the new way; others resisted. The common wisdom is that about 20% of people will always cling to the old way, while 80% rapidly adapt. With a new generation coming along that never knew life without the global mesh, the percentage of resisters will shrink ever more rapidly and eventually become a negligible number.

How does the management of virtual teams differ from traditional ones?

Good managers are simply that: good. One has to pay very close attention to people on their virtual teams lest they feel they're being ignored or not encouraged to do their very best work. Some writers and researchers have gone to great lengths to prove that virtual team management is different from in-person management. I'm not one of them. While there are some peculiar aspects to managing people from afar (being more intentional about contact, for example, since there is no cafeteria for bumping into people), the principles are not all that different from good management in general. Pay attention, be kind, be encouraging, continuously refer to purpose, use multiple forms of communication, reward people for good work, recognize excellent teamwork, lavish people with meaningful praise when they far exceed expectations, continuously examine your own behaviour, freely admit mistakes, learn how to apologize in a genuine way, and continuously educate yourself on cultural differences.

What are the main difficulties and challenges of running virtual projects nowadays? How does NetAge help to manage them?

The biggest difficulties and challenges are the same that they've always been: lack of clear purpose; inadequate methods—or attention to—maintaining good communication; lack of familiarity and camaraderie among team members; and insensitivity to cultural differences. We have more than enough technology and still lack a good deal of humanity. NetAge developed methods and tools for applying these simple ideas.

Do virtual team principles ‘people, purpose, links’ still remain the same nowadays or, in your opinion, we can add something more to this concept?

Nope. It’s the same model and we have the same problems. Each aspect of the model has great depth and the more we understand what it means to recognize and honour people in their fullness, the greater the connections among the people. The more we appreciate the purpose and explore its implications, the greater the work people do. The more we expand and nurture our links, the fuller the web of creativity and ingenuity becomes.

According to my survey results, virtual managers do not use intranets anymore. How the communication sources (‘links’) are changed in general?

The technology has changed completely. Some companies and organizations still do have internal webs of communication but the elegance of the expansion of the Internet, the development of cloud computing, and the move to mobile have all radically impacted the openness of connectivity. This has brought about a paradox: a greater emphasis on security and a loosening of fear that people will “go online” while at work. Who hasn’t? It used to be that companies—and many still do—ban going onto social networks via the corporate network. Then people just moved to using their phones. It can’t be controlled—mainly for the better but we also have too many grisly examples of the new global connectivity being used for the-so-much-horribly-worse.

What are the main ways of virtual trust and motivation establishment?

We wrote extensively about this in our books. Trust is established by deepening social capital, which results from personal ties, dependability, and generosity. Motivation comes from recognition and challenge, i.e. set high goals for people and then reward them in ways that are meaningful to them, both publically and privately.

May I use this document in my dissertation?

Yes, of course. Please send me a copy and best of luck! In return, may I use this as a blog post? If so, please send a short bio so that I can credit you with the questions. Where are you situated and at which university are you studying?

Appendix 3: Interview with Keri Calhoun

Name: **Keri Calhoun**

Company: BatchBlue Software, LLC

Occupation: VP of Strategy

Industry: Software

Country: Providence, USA

Establishment: 2007

Interview: 15 November 2014

When was BatchBlue Software, LLC established?

We were founded in 2007

Why do you think that Virtual teams are more efficient than traditional ones nowadays?

Virtual teams - at least ours - are able to work where and when they need to. Being able to optimize your workspace and time in a way that suits individual lifestyles and needs is a great privilege that we take seriously and work very hard to maintain. A virtual team only works if there's great communication, dedication, trust, autonomy and respect from everyone. A team able to work under these gratifying and challenging conditions is far more productive and ingenious than a fully localized team, because working virtually requires intense and focused collaboration and output, which is more possible without the distractions inherently present in an office.

Video conferences are strongly recognized as substitution of face-to-face communication, which leads to a trust establishment. However, Batchbook team rarely uses video conferences as a communication tool. What is your way of trust development between team-members?

We've yet to find a video tool that doesn't compromise call quality, so in order to keep disconnections low & call quality high we generally turn off video. We do have a rule, though, that callers should keep mute OFF unless totally necessary, which allows for

candid reactions & even background noise that can oftentimes offer a window into someone's daily life.

How do you establish trust virtually?

We try to establish trust between team members via frequent instant messaging & VOIP calls mostly for work purposes, but sometimes just to say hi or talk about mutual, non-work interests, too. We've also established off-topic chat rooms so that folks can participate in group conversations not about work.

Do you often conduct personal meetings and face-to-face conferences within the team?

We have bi-monthly all-team meetings, and each manager touches base with her/his full team at least weekly, oftentimes more. Additional personal meetings are held when needed for work purposes - this is generally multiple times a week & not as efficient as I'd like...

Do your team members often face conflicts due to a lack of trust or misunderstanding? How do you manage these situations?

Yes, we all do. It seems to me like frustrations are either vented to a co-worker someone trusts or brought to management, the latter is typically responsive to concerns. Honestly, this is something we struggle with. There are some interesting apps & companies out there trying to address this...knowyourcompany.com is a good one...and we've looked into using a service like this to help better gauge the general pulse of the team & to address issues before they become disruptive.

The product you are working on requires some sort of creativity. Is it hard for your team members to be distantly creative?

No, not really, though I think we'd all benefit from more regular, scheduled professional development

How do you conduct your project schedules? And how much does the communication matter? For example, do you simply set up separate tasks for everybody due to a deadline and share information only at that day? Or is this a collective thinking and group work, which requires constant communication?

It's a collective thing that requires constant communication & process tweaking. I'm not convinced that's the best approach, but it's the one we're using...

It's hard to keep motivation high all the time working distantly. Which techniques do you use to inspire employees if you ever faced this problem?

We send regular care packages through the post, we celebrate birthdays with fun emails and electronic gift certificates, and we try to recognize good work & ingenuity when it's outstanding.

Can you give any advice to virtual start-up companies, how to succeed in this field?

Check in with virtual employees - informally - daily. Schedule weekly check-ins that are more formal, and keep to that schedule!!! This is the first step in assessing whether or not your employee will or can thrive in a virtual environment. Send virtual employees tangible treats and include them in birthday & life celebrations. Be sure to also let virtuals lead projects & meetings so that they have an opportunity to grow and lead. Finally, provide regular opportunities for career enrichment & advancement, and require that these opportunities' key take always be distilled down to the rest of the team so that everyone benefits and the virtual team member is given yet another outlet to shine & be part of the team.

Do you give a permission to use your company as an example of successful virtual team management and include your answers in my dissertation?

Sure.

Appendix 4: Interview with Alice Hendricks

Name: **Alice Hendricks**

Company: Jackson River

Occupation: CEO

Industry: Non-profit

Country: San-Francisco, USA

Established: 2008

Interview: 5 November 2014

Probably you often have to work virtually with your clients. How difficult do you find distant communication?

I don't find client communication difficult at all, I find that most of the time telephone calls, video chat and email or Skype chat is fine, even if I have clients in the same city, I have clients that are walking distance to my office, that I see only a few times a year and when we see each other it is socially for lunch or drinks, so most work communication is often through those things, also we are a technology company and we build websites and a lot of the time the process around the web-site building is using a ticketing tool where you are discussing the work and support ticket format and that is an online product, where the client goes into and find the ticket. There is a transparency around the work that is done and the record of the work that is done, so I don't find it difficult at all.

Do you conduct lots of virtual projects in your company?

All of them are virtual, yeah; we always work away from the client.

What about trust issues? Do you have any problems with that?

No, I think, that trust is the most important thing and you have to build a relationship in order to have it. You do have to spend time building trust, but it takes the same amount of effort to build it over digital communication channels as in person. It might take a bit more time, but it is a doable situation.

Could you tell me more about your virtual team?

We don't have an actual office, I mean, we have an office with four people, but our team is 30 people and everybody works virtually from home.

What communication source is most efficient when working virtually?

The same as we use with clients - Skype, Skype groups and chats, project manager can create a topic on chat and other people contribute to work getting done, Skype also allows screen sharing, that is very helpful and, of course, video, so we can see each other face to face and we need to.

What are the crucial aspects of virtual management, in your opinion?

It is a frequency of touching based communication within individuals, so I am a CEO and I am trying to make a point to talk to individuals one on one in non-work conversation as often as I can just to make sure, they are doing ok personally as well as professionally, so you have to build that relationship and you also have to allow time with the virtual communication to sort of make that to the fact that ... for example, when you are walking from your desk to the kitchen to make a cup of coffee you may pass one or two co-workers and stop and have a chat with them informally. When you run a virtual team you have to create an environment that is similar to that, that is easy for folks to chat with each other informally about non-work things, so that they can develop personal relationship with each other. We are fortunate in it, our staff communications and Internet, we are developers, and we build websites, so everyone in our team is very comfortable using online tools for communication, so it is not a learning curve to get them to communicate through chats software, forum or ticketing software or anything like that. The technical competency is already there, I can imagine if I was trying to build a virtual team in a non-technical company, I would have to work harder and train them for getting used to that. Also, new staff that never worked virtually before, we also spend more time with them in the beginning, I am checking in with them often, usually on morning phone call, but they are not alone working, they are constantly involved in meetings, conference calls, skype chats all day long, so it is very active and very vibrant and very busy.

Is it difficult to keep people motivated virtually?

I don't think so; I have never experienced anyone saying that they are not motivated; everyone is very involved and participatory and gets their work done on time.

Have you heard them feeling lonely and socially isolated?

I do find that some our staff do feel lonely. We have several folks in the area of the country of the United States, cities that are next to each other. They go to a co-working space once a week and they work together even if they are not working at the same project, they are together and they go out for a beer after work. Other individuals go to co-working places in their cities, so I have a staff person in Northampton, Massachusetts and one in Los Angeles and they go to co-working spaces. I also have a lot of staff members who are family, they have very big families and one of them is a dad with three kids and he is just very busy outside of work, so he has enough going on in his personal life, so he is not feeling lonely. I have had several people have trouble with getting up and getting showered and going to sit at your desk, otherwise the day feels too long. I also had problems with people saying they can't stop work at the end of the day.

So do you think that periodic face-to-face meetings between virtual team members are essential?

I think it is not essential, but it is encouraged. If there is a possibility they can get together, we encourage it, so we pay for the co-working space, for example.

You are a technology company, building websites, it requires creativity. Is it hard for your workers and designers to be creative virtually? Do they have a lack of inspiration?

Yes, I think, it is not the easiest. It is easy to multitask and harder to stay focused and brainstorming is more fun and more productive, when it is focused on one thing. So I encourage folks to do video chats and use brainstorming when everyone can collaborate and see the same document, so Google Docs is great, because everyone can see what is going on there and share and interact directly, and pretend that it is a white

board. We can have video, pictures of each other and have a meeting that way. so it feels more interactive.

Do you have any other issues working virtually?

I think that sometimes the time zone issue is a problem. We don't tend to work with people from too distant time zones, so we pretty much keep focusing on US and not globally, so there is overlap. I have and a situation like that: a part-time person on east coast of US, eastern time zone, working with a client and the programmer in a pacific time zone and she would get off work as a programmer and client were coming to work because of a time and it was very hard. So, stuffing a product can be a challenge for sure and I think it can be something that is difficult for our staff, because they want to fill that they can serve the client as well as they can, but they have different hours that can be difficult.

Do you find virtual teams more efficient nowadays than traditional ones?

My people say that they are more efficient, I actually don't think they are. I think that's the same level of efficiency you create the situation when people can chat with each other about non work things during the day and that's important for developing a culture. I think efficiency is at the same level, if you can work.

Do you have any special techniques, professional secrets of virtual management?

We all get together for a week every year and we rent a very large house, so we have time together to work face-to-face and to have a downtime to play and hang out. I think that this is important. I also try to bring functional team members together, so if there are people working on the same project we try and face-to-face and a lot of virtual organizations do retreats more than once a year and it is very expensive because you not only have to pay for a travel to go to the place you also filling clients during that time, so it is an expensive prospect, it is a cost thing, but it might end up the same as if you were to pay an office rent. The highest value of a virtual team is that you can hire for skill and cultural fit and not just location, so the pool of people you can have, that are working for you is greater.

How many employees currently work in your virtual organization?

27.

Do you allow me to use this material in my dissertation?

Absolutely.

Appendix 5: Interview with Mikko I.

Name: **Mikko I.**

Company: Ambro****

Occupation: Entrepreneur - Co-founder

Industry: Food

Country: the USA

Interview: 22 April 2015

Have you ever been a part of a virtual project or managed one of them? Please, tell more about your experience.

I'm working virtually many months every year as I'm travelling and my team is in Finland.

How many virtual projects you have been a part of?

Many

Is working virtually more productive, in your opinion, rather than traditional common office style of work?

Depends what you're doing. Brainstorming and ideation is difficult over Skype / virtually. Working on a common document over Google Doc might be even easier virtually than in the same physical place.

Have you got a positive experience of virtual outsourcing connected with the use of Virtual Assistant (VA) utilization? How does VA work for you?

Yes I have.

I instruct all of my assistants over email, and I use Elance.com service to take care of the payments.

Is it hard to establish trust with remote workers? How do you manage your relationship?

Trust builds if the remote worker delivers. I don't manage the relationship, but I do know what to expect if I want to work with the same assistant again in the future.

- What is your recruitment process for virtual assistants, how do you know that the employee is trustworthy and professional?

Try [Elance.com](https://www.elance.com) yourself and you'll see the rating system and how they do offers

Do you find virtual workers more efficient nowadays than traditional ones? Why?

Depends

How do your relationships with remote assistants work in general? Do you keep it formal or try to make friends?

It's for business, not for making friends. But that doesn't mean that the communication should always be formal

Which communication sources are most efficient when working virtually?

Email

Do you personally prefer communicating through emails or video conferences, why?

Email is more convenient.

What are the crucial aspects of virtual management in your opinion?

Accountability and trust

What advice can you give to virtual start-up companies and virtual workers?

Virtual assistant is the way work is conducted when the resources are limited and you need the job accomplished quickly

May I use this information in my grad work as well as your name?

You can use the answers, but please don't use my full name. You can for e.g. mention "Mikko I."

Appendix 6: Interview with Aleksi Pulkkanen

Name: **Aleks Pulkkanen**

Company: Agendum

Occupation: Co-owner, COO

Industry: Software

Country: Finland

Establishment: 2013

Interview: 24 April 2015

Could you tell more about Agendum?

We have founded a company at 2013, so it has been up for a couple of years now and maybe the first year was a pure product development and now we have been selling the product for 12 months. The idea is that 12 collaborate online to offer this simple and customizable workspaces that everyone can create for the own team, so the customers can be internal teams in the company, like project teams or sales teams, or they can be cross-organizational teams like company boards or some committees or non-profit. Or they can be consulting groups, for example, groups with a couple of persons from the company and a couple of people from the customer company so to help in this kind of groups where people don't normally don't work with each other every day, we have tried to offer online tools that are also secure to help them to do stuff online, so that was the main idea, when we founded the company and it is the same still. We actually started from creating a workspace for a company board, cause my business partner has been very active on numerous company boards, and originally the boards were a target segment, but now we have broadened that and now there is just a one case of working online.

But this is where we have started from, we have seen that people have been working online a lot by sending emails, attaching stuff to the emails ending up with long email spreads, where multiple versions of different files are going around and it creates this kind of problems, so we provide easy tools that you can set up to help you do stuff online with your team.

How does your software benefit building collaboration physically? How does it differ?

I usually say that Agendum is a collaborative platform. If you have a team you can invite them to the platform and you can pick collaboration tools that you need in your teamwork. Some teams are about arranging face-to-face meetings, we have a tool for that, but other teams might just have non official meetings and focus mostly on project management. We have different tools for a project management part, which is this kind of visual board to see things that are waiting in line next, priorities, what is not done and what is in progress and this can be divided into tasks and shared within the team. So there are 2 kinds of help our software provides: project management and meetings arrangement. Then we have tools for file sharing to make online communication a bit smarter than just emails. So, you can pick a right set for a project and use it the way you want to satisfy your own problems, like not effective meetings, file sharing, misunderstanding.

Is it customized?

Everything can be customized that is why we call it a platform. You can choose tools and their quantity as well as a visual look of your virtual workspace, so it shows your company's logo when you invite people there. Customization is what differs our product from all other project management software. You can customize the visual look, tools and the content of each tool, but the idea is that there is usually only one admin in the group, who has to do all the customization and the others just arrive at the workspace when admin invites them, they just take advantage of the features. It is customizable, but easy to use.

Thank you, it was a very good question; cause it what differs us from other products.

Our approach is that you know best what you need, and we just make sure that the tools we offer solve your problems in a simple way, cause we don't want to make anything complicated, we are keeping it simple and productive.

The other thing that makes us different is a pricing policy, you only pay for things that you need, you pick a tool and you are only charged for those, not for the amount of members you have for your team.

Is the demand for your product growing year by year?

Yeah, we are still so young, we have been selling for 10 months, but it is growing quite stably now. We are following the number of visits we have, logged in visits each day, that grows to the fact that our current users use it effectively and they grow their usage to other groups they are a part of. Plus the overall amount of users we have is growing nicely. Yes, demand for this kind of thing is growing as well as product awareness.

Did you start with the Finnish market only?

Yes, we kind of first started with the Finnish market, firstly, trying to understand whether the problems you are trying to solve are kind of real, we had lots of customer meetings to tell them what we had, which kind of things we would like to solve, and see if they are agree that these problems are real. This work was done in Finland as it is easier for us to meet. And through personal connections we got many customers, and now our product works in 5 foreign languages, so quite quickly we started emerging foreign markets.

Do you have purely virtual teams among your customers?

Yes, those are the situations when this kind of software is the most usable, for example, European Development Council of JCI Network is very international network as it includes one person by country.

Have you personally been a part of a virtual team?

Let's see, may be not, in a way our current start up is virtual because we don't have an office that we would go each day. We have an office 15 km from Tampere, where we meet once a week, but we are much on a move, meeting customers. However, we are looking for an office. And I have never worked in a team which is totally virtual.

Is your tool helpful only for trust building or is it only for sharing information?

I think that trust building is a challenge for a virtual team, so, I think, our tool is very much useful on this perspective. Of course, you can say that it is mostly about information sharing, but it goes deeper like working as a team, not just sharing information, but discussing, getting to know other person by doing stuff together, working tight on a

certain topic and distributing tasks among people. I think when you can build an atmosphere of working together quite closely, even though it is a virtual team, I think, you can build trust in the team. It makes it a lot more personal when you have this kind of workspace where it is visible there how team workers look like and it is a personal space just for a team, not just sending emails, which is totally faceless. Thus, your personal virtual workspace becomes a trust building approach.

Does it help to avoid misunderstanding and conflicts, cause, I suppose, if you source information properly, it helps to avoid these problems that are very common in virtual teams?

It is a very good question, every question has been very relevant and good, but especially this is a nice thing to ask. I think, it is always trickier communicating in a written form, especially in virtual teams people are very diverse and they have a different background to interpret emotions on the background of messages. It is trickier rather than speaking directly, but when information is nicely stored and displayed so that it is easy to go through all the comments, it is much more probable that you will be successful on his kind of communication. When email threads get very long, the informational level of new replies usually decreases. When threads are long all the energy of people spend on trying to find what has been discussed earlier and what should be the answer, and the answers are very short. Thus, there is also more room for mistakes or some people can be dropped out from the discussion and it is totally a big point for conflicts and misunderstanding as people don't have this information available, that they should have. So, comparing to emails, this collaboration is stored nicely, displayed nicely and if our system is easy for you to select people to be involved into a discussion when you start one, then our system makes sure, that every one of them gets notifications of new messages, so nobody is dropped out.

How do you assess the progress of your platform and what are the ways of innovation?

very good question, once again, I think the answer to both is a very close connection to users of a platform, so we innovate by listening our users and trying to find new collaboration needs we are trying to solve by coming up with a simple new tool.

Our biggest customers are KBMG, they are a very big international financial consulting company, and they are using our product very much in Finland. They are using the basic tools: meeting, project management and information sharing, and we are constantly are trying to create new ones based on customer feedback and understanding of ways to come up with the best ideas. For example, with KBMG we are working on making auditing documents easier. It is a long process, for example, trying to come up with online security. So we involve our customers a lot in innovation process.

May I use this material for my Thesis?

Yes, of course, and if I can help you any other way, please, let me know.

Appendix 7: Interview with Anna Danes

Name: **Anna Danes**

Company: Ricaris Have a Nice Day SL.

Occupation: Director

Industry: Consultancy, Education,

Country: Spain

Establishment: 2008

Interview: 17 December 2014

Couldn't you tell more about your company and industry it operates in?

Our history goes back 6 years now when you created the company called Ricaris and we were offering services to web pages so we were offering content, uploading translations, customer service in many languages that's how we start having a distributed team, an online team. Everybody was in Barcelona and the rest of the team was around the world, because we were offering services in different languages so we needed the talent, wherever they were. If we needed something in Polish, they were in Poland. If we needed something in Dutch, they were in another place. So that's how it started and also some clients had small budgets. We needed to find somebody that spoke German but our client couldn't pay for a German rate, so we needed to find somebody from Germany in Argentina, for example. So the rate would be lower.

We still have that concept called Ricaris and with that knowledge we decided that we should provide all the knowledge we had acquired during the years for other companies. Then we created managing virtual teams with the managers that had acquired all the experience through the years and a psychologist that was very knowledgeable of these topics. She had us make courses and preparations. So we could do better consulting for companies.

Please, tell about your usual clients, what are the problems they face, working virtually?

There are many problems we call them challenges. On our web page we created the guides, so people can go there to find solutions to solve their problems. Here there is a little bit of information that you can find quickly but I think some of the main problems

that there is a problem that company faces, there is a problem that manager faces and there is a problem that worker faces. I think that or the worker being alone at home or in the office that he or she is renting is very exhausting.

In the beginning they think it is a lot of fun because you can do more or less the schedule that you want because you are far from the time zone of a company where your boss is. So, you can do the schedule that you want. You feel very free, but after some months the worker starts feeling down. They start to feel lonely and not connected to the team and they start to feel like there is a low communication and so we work a lot with fighting all this. We always advise to get together, to celebrate as many things as you can with your team members, because otherwise if the manager does not work on the motivational aspect, so the person just doubts, you know. The person starts to feel much unconnected to the work, so it is important that the manager works a lot with that.

How is it possible to fight those problems from the project manager's point of view?

Project managers can fight other kind of problems: make sure goals are met, team-members are connected, and they are following the instructions. For me, the key solution to that is to have motivated people, I mean, it is also important to have very clear procedures to have very clear expectations, to have ground rules with your team to know and tell them exactly what you expect from them, they should expect from you. And once it is sorted, there are more things project manager needs to do: first, to create goals and clear objectives and clear ways to report those objectives with the team; and, second, the goals should be set together. Not managers should say 'I want this' or 'I want that', everybody should agree on goals that should be very clear. That was the one thing and the second thing what the manager should do is to always work on the motivation of the team, make sure that team-members understand, how important they are and that the manager is available for them all the time and the manager does things to promote this motivation: creates small projects for them to complete, that there is a possibility to have more responsibilities, team leader empowers them and that they have an open communication. So, I think these are the main things that the project manager needs to work on.

What was the biggest project you were working with (how many employees)?

With Ricardis, which is a mother company for managing teams, the one biggest project we had included 70 people.

You are disagreeing that it takes time to establish trust; do you have any particular techniques to speed this process up?

Yes, of course, trust is important. For me, trust needs to be established from day 1 and it needs to be established from the recruiter. The person recruiting has to be trusted, understands the job, and has skills and other abilities, so for me it starts with the recruiter, not from the manager. I think if the recruiter does the job well, then the manager has it easier. Of course, trust establishment is harder in a distributed team rather than in face-to-face communication, when we can see the reaction of people, what they are doing all day long and manager can just walk into the office of somebody and chat with them. It is easier with a face to face team and with virtual teams trust is an issue. The manager of a distributed team always has to put an extra effort, always has to repeat things more often, has to check whether work is done well, has to do extra training, put extra effort into communication, has to be more nice they would be in normal office. The work of a manager is doubled or tripled, just because they are in a distributed team and trust is just one of the issues. For us trust from our experience is the very first thing, if you do not trust the person in your team, it is really hard to continue your work with that. So for me, it is very basic, you need to achieve trust.

How does one-to-one consulting work?

We meet our clients by skype, online platforms, and video-conferences. What we offer doing this consulting is solving the problems manager tells us about, and we provide them with solutions that specifically match their problems. So, we have the courses that offer general information and we have some parts that we can change a little bit, but there are courses that are already written and the program is already established. Consulting, we are helping their problems that are unique; we find solutions that are specific, like software tools. We help them to do team activities, certain ideas. For example, if there is no identity in the team, we can do a couple of three activities with the team to reinforce the identity. So, we are working with the people, finding specific solutions to their challenges.

You also provide courses on Work-Life Balance? How is it connected with social problems virtual workers face?

The work-life balance is a really big issue. People work from home or they have a little office or they have a co-working space, but when u are talking with people who work in distributed teams, they have so much freedom, that sometimes this freedom is hard to manage. For the first month people end up wearing pyjamas and they don't realize that it is not correct and they need to take a shower and get dressed to go to the next room, where your office is, so in the work-life balance we have made all the mistakes possible, we teach you how to be a better online worker and how to separate your life, your free time and your work time. All the studies say that people working in online teams are more productive, I also see that we are more productive because of many reasons, because you feel like this is your project, you feel the pressure in a different way, and there are many things. But I think, one of the things, which is a negative thing is that distributed workers check their email all the time. If they get an email at midnight, they might reply, that is not positive, because at the end, in the long run, this worker will have a burnout and is going to be tired of his job. We teach that the worker separate his free time and the work time and they are not afraid to say: "No, I am not going to reply, even though I just saw it, I am going to wait until tomorrow when I wake up." Thus, we teach these things, that seem very basic, but because it is a new way of working.

How is it possible for a manager to lead successful online meetings, conferences, virtual events? And what is a successful online activity?

It is simple, a successful online activity reaches its objectives, for example, team is not very committed with the purpose of the company, than we organize a team activity that can be facilitated by us, or a person inside the company that will attack the problem that company has. Successful team activities are then everybody gets to talk and participate and at the end without really knowing, because it is not theoretical, it is all practical, the people achieve the objectives that we have, so it is a fun way to realize something. For example, there is a team that is not really good at working together, so we are running an activity, where each person is going to explain their skills, abilities and with that we are going to build a method of teamwork. So everyone is going to bring their superpowers: may be, one is good at communication, the other one is good at excel, the other person is very good at meeting deadlines, so the person will bring that and together we are

building a team. So, this is a team activity, where people get to know each other, feel good about each other, which they are and what their strengths are. If in the future I have a problem in excel, I don't know how the formula works, then I know that in my team there is a person who is very good at that. So, it is just the way to get to know the team, to establish trust and grow together and we do it in a fun way. We have a white board and we draw things that represent the skill and in the end we entertain, so it is not boring.

Do you suggest arranging face-to-face meetings to break isolation or this is just a waste of resources?

I think face-to-face communication is great, but it is not always needed. When you have to work with somebody virtually and you need a face-to-face communication, it is a real emotion, you know, in normal offices it is not so emotional, so I do not seem a need here. We have worked with hundreds of workers and we did not have to see each other, so it is not necessary for a company to have them, not at all. Video conferences are really, really nice, this is something not expensive and works very well. If the company has money to send workers from one side of the world to the other, I think, it is great that they do it, I don't think it's a waste of money, I think, it is a good way to invest the money, but I don't think it is necessary. It is possible to work with people we have never seen, to work with for a very long time: we have workers we have never met for 5, 6 years and we are still working together and we are really attached to each other. I think, it is possible to do it without ever seeing the other person face-to-face, but you really have to work on communication. You have to do meetings, you have to do celebrations, you have to get together and put much more effort, just because you don't spend money on airplanes.

Can you give any advice to virtual start-up companies, how to succeed in this field?

To recruit well. If they recruit well, they will have half of work done, after that a very hard work starts: doing things, so employees feel like the part of the company and empowering your workers through providing positive feedback. But recruiting is very important and your goals- are clear, very clear.

Appendix 8: Interview with Cathy Smith

Name: **Cathy Smith**

Company: InSync Training LLC

Occupation: LMS administrator

Industry: Education, Software

Country: USA

Establishment: 1999

Interview: 29 October 2014

When did you join InSync team?

I started about 3, 5 years ago and it goes very well for me.

InSync Training LLC exists for last 15 years.

Did your team catch the demand for virtual recruitment based on globalisation and global markets development?**Is this demand still growing as well as the industry?**

I believe so, because this industry is growing.

Couldn't you tell more about your company's activity and recent virtual projects?

I manage the learning management system for one of our clients, so I am in contact with people around the world. We generally use email to communicate, we occasionally have conference calls, but most of my work can be done through emails and it is very effective especially since we are all in different time zones.

Do you face conflicts based on misunderstanding while communicating through emails?

I would say rarely, most of the people I work with speak English, they write emails in English to respond. So it is never a problem, of course, in email and skype message you can't get the feeling of the person's tone, so it takes a while to interpret what they mean,

that's why sometimes we pick up the phone and call, skype call, because you don't want to be misrepresented what you were coming.

What are the main problems your clients ask you to fix in the field of virtual management?

I can't really think of any to note, I do not do facilitating and I hardly ever host sessions, so I don't get the feedback of training in that respect.

One of your colleagues provided the following information on the question about special virtual management techniques used in InSync: "mentors, sharing kudos, virtual "water cooler," virtual birthdays/showers, training sessions, practice rooms"

They have an fb page, where they sometimes write kudos like somebody did something good, although I haven't seen any for a long, long time.

I think if you are somebody who uses fb, it probably helps, and I don't use Facebook, so I need somebody to tell me about it.

Do your team members often face conflicts due to a lack of trust working internationally? How do you manage these situations?

It definitely takes a longer period of time to trust people and sometimes you even have to have a conference call to talk to that person to get a better feel of their affects and how they carry themselves. It helps more when you have a video-conference call, so you can understand and see the person's body language. When once trust is established, you are in a good shape, so I think it takes much, much longer to trust somebody because you can't look at them and know what they mean, you know. If somebody wants us speak, we share this, because I manage the learning management system and someone says can we share the power points with the associates, I say 'Noooy', because we can't do that, and I get a message back 'Oh, how do I say it in a nice way?', then I just need to emphasise the point, cause even if I wrote it in small letters and I am being kind of playful about it, she took it as a "NO." and that was somebody I had worked with for at least four months and had a lot of contact with. So, just be careful of how you respond, sometimes response seems short when you are trying to be professional, be-

cause we get so many emails, and some people don't read emails fully, so this is one of those things you have to be careful about, because people are reading into your emails and even though you think you presenting your opinion or statement one way, people can take it another way.

I got that in the beginning of projects you have lots of video conferences to get to know each other, is that right?

Let me see, right now we have 7 new people who work on this project with us and they all started at the end of July and I think some of them you quickly develop a rapport with, and with others you just don't, so I think it is on individual basis and I think if we all sat in one room together, learning about each other would go much quicker.

Are there any more difficulties apart from misunderstanding that you face sometimes?

I have not really had that problem, because I work with my core people for 3 years and they trust me as well as the manager. However, twice a year we get new associates, that generally went out of college and they tend to be a little bit more relaxed and they in some ways you get to know them easier.

Appendix 9: Interview with John-Paris Pantouvakis

Name: **John-Paris Pantouvakis, Ph.D.**

Company: National Technical University of Athens

Occupation: Professor of Construction Management

Industry: Education

Country: Greece

Interview: 26 February 2015

Could you tell more about your experience of virtual management? Did you like virtual projects or prefer traditional office style management? Why?

I do not really have a preference towards virtual or traditional management. There are pros & cons to both. I must admit though that I find there are distinct benefits to virtual meetings (cost, time & effort savings)

You have mentioned that faced conflicts based on misunderstanding? Could you provide an example from our experience, please?

The above is particularly valid when you have people from different countries, with different English language capabilities, trying to communicate in a virtual meeting. Add to that technical difficulty, e.g. trying to communicate over a mobile network.

I do remember a meeting with multiple participants and a guy from Italy who could not follow the conversation due to bad English and poor connection. He was hearing half of what it was said and comprehended even less. The meeting almost ended in a disaster...

Lots of managers find virtual teams more efficient and economical rather than traditional ones partly because of lower transportation cost and workers' inability to simulate productivity.

Why do you vote for the traditional teams, working in the office? Are traditional teams easier to manage?

I have experience of both local (from one country) and international teams. For the latter I still prefer face 2 face meetings or at least a combination of virtual and F2F meetings. I would recommend 3 virtual meetings to 1 face to face meeting.

For the former (common language and cultural setting), virtual meetings to face 2 face meetings can be 5 (or more) to one.

In general, I prefer F2F initial and closing meetings with virtual meetings in between. Also, complex arguments are more difficult to communicate over a virtual meeting.

You have mentioned your experience in running teams spread among more than 6 countries to get a wide pool of talent.

Eventually was it worth it or do you think you could find the same high quality labour within Greece?

No – because I was referring to IPMA meetings which by definition have participants from different countries

You think it is not possible to establish trust in a team without face-to-face meetings, however, a large number of workers never see their colleagues and show perfect results. How do you think it is possible?

Well, if you cannot afford F2F meetings, virtual meetings have to do. But it helps to know people in person unless what you are dealing with is trivial or procedural. Have you noticed that virtual scientific conferences are not as widespread as traditional single location conferences?

On the other hand, in some industries virtual meetings are the majority. I guess it depends on what works and what does not. Mind you there are different and of different sophistication technologies that affect the whole process.

To make my point more clear – do you think there are meetings which can be replaced by telephone calls? (Even telephone conferences?).

Well, in some cases they may do, but in the majority you need to share documents, possibly work on a single document etc. In such cases a computer based system is preferable.

Do you always run face-to-face meetings even working virtually? How many face-to-face meetings are enough for a good performance?

I do not know if there is a best practice. What I know is that one should be vigilant to understand whether a meeting has delivered its goals and act accordingly.

Mind you, it is much easier to “hide” (i.e. make your computer present and yourself dealing with other matters in a virtual meeting).

Would you substitute face-to-face communication with video-conferences? Or is it still ‘not the same’?

Today’s sophisticated systems make it quite similar to hold a virtual meeting to a F2F meeting. But you cannot capture easily body language, grimaces etc. in a virtual meeting. It much depends on what is discussed and how difficult the subject is. For day to day operational issues, virtual meetings are perfect!

Appendix 10: Interview with Mark Curcher

Name: Mark Curcher

Organization: Tampere University of Applied Sciences

Occupation: Senior Lecturer

Industry: Education

Country: Finland

Interview: 10 November 2014

What are the benefits you personally got from distant work?

I guess the main benefit is that you have people with different viewpoints, different ways of seeing the world. I think the problem is when you are in a group where everybody has the same background and everybody has a similar set of experiences, and then you end up with people who think the same way. You don't have anybody who comes up with the solution to a problem the others once, if you see what I mean. So, people who come from different backgrounds, have different educational experiences, who see the world in a different way are sometimes very good in saying why don't we try this or why don't you do this and that makes you really think about what you are doing and why you are doing it. So, if you have to put it in one word, it would be "diversity".

The great thing about international projects is you have diversity experiences.

You have got a wider pool of talent and people who do not think the same. There is nothing worse than a group of people who actually are agree with each other. Because there is no creativity, there is nth to bound off of.

But there are many cultural difficulties working with people of other nationalities? Have you faced any?

Yes, indeed, and I think the cultural differences are some of the things that can make it interesting. For example, any of the people I have worked with from the Middle East, the Muslims, and their view of the world is very different from my view of the world and your view of the world. In the same way, between you and me, we have different experiences. So, sometimes I think it is good to be forced out of your comfort zone and look at the world through somebody else's eyes. It is not always comfortable, but if you

want to really get new ideas, you sometimes need to be in the situation where you feel uncomfortable, not easy.

And how did you manage these situations?

The only way I know how to manage it is that you are genuinely open to different viewpoints. I don't know where it comes: from my experience or just the fact that I have lived around the world. I left my country 20 years ago and I have lived with people from around the world. So, that's also a factor, because in order to survive in different countries, you have to be open minded. When you went to the UK, it is not the same as Russia or it is not the same as Finland, and you have to be open minded to the way they are doing things.

It is something about mind-set, you say: "Ok, this is different, interesting", rather than: "oh, this is wrong, this is not how I do it, and this is not how we do it." You have to think: "let's see what happens if we do this."

I guess it is about being able to tolerate risk, to try things. I guess, if you are going to the UK, you take a risk and if it didn't work out, at least, you gave it a go, you gave it a try. And I think an international project management is the same thing: you have to try different things, be open minded.

If virtual teams are more efficient nowadays, how did it affect you as a manager?

Is it easier to manage a distant team?

I would say yes, it is easier. There are so many ways to communicate; you can get in touch with people through different ways: FB, email and everything else. I can't imagine this kind of thing before we had these technologies. If we go back to when I was your age, long, long, long time ago, if we tried to do stuff like this by letter or phone calls, it would be impossible. It is so easy now to get hold of people, anywhere in the world, anytime. So, you can go back, you can check something, you can clarify something. For example, I wanted to check something this afternoon with the guy from Australia or somebody in America, you can do that, when in the past it would take time, when now I can post a message on FB or I can get so many ways and very quickly I can get a reply, you know.

You said it's not more difficult to establish trust in virtual environment? Not many managers admit it, what is your experience?

I think one of the things about trust in the virtual environment is very easy now to check out what people tell you about them. If you were to tell me you were an expert in something, I wouldn't have to take very far to find out whether this is true and whether you have really done the things you claimed to be done. At the same time, if someone is working with me, they can really quickly google my CV, the things I pointed I have done and so on. And they can contact even other people, who worked with me, when before those things were so much harder to get.

Trust still does take time to develop and it comes with time. I mean there is no instant trust with somebody; it comes from the results and contribution. There are 2 things: one that I have already mentioned, that you can check out the things, the other thing comes from the network. We now have much more intensive networks, than we previously had. Let's say a new person, whom I don't know, whom I am going to call person A. I have never worked with that, but I do know person B or C, with whom I have worked before and I trust. I know if this person is good enough to work with B and C, they would be good enough to work with A. First of all, you have to see what people have done from the virtual footprints on the web, what they have actually done, and their real work. And the second thing is who they have worked with; do I trust people they have worked with?

It's hard to keep motivation high all the time working distantly. Which techniques do you use to inspire employees if you ever faced this problem?

Yeah, motivation is a problem. Again this is when network is important for me. Also everybody is different, you have to be in a network, so people can keep you encouraged and also the same for people in your network. This is one of the advantages of modern communication technology, it is so much easier to send someone an online message to try to encourage them, motivate them and keep their interest. If I see just a little FB update or you are going to email or tweet or something: "How are you getting on this project?" or "Have you done this yet?" so on. These are the things that keep motivated. For me, the thing that demotivates is isolation. I need to be working with people and

doing things with people, if they stay in contact with me, I stay motivated. If I am isolated, I lose interest.

Have you conducted face-to-face meetings between your team-members? How efficient do you find it in your case?

There is nothing that replaces face to face, so if it is possible to meet face to face, then yes. If it is possible, they are always better, but of course, they are much more expensive in money and time. But if I travel to one of those countries, even for another reason, I will try to have face to face meetings. To give you a real life example, I went on holiday to Dubai when I was on vacation, I still took the time out of my vacation to go meet face to face somebody I'm working with, because there is nothing that substitutes for face to face contact. So, if you can do it, you should do it. So, it was worth giving a part of my vacation to go and meet this person, have lunch with them. That can motivate, that keeps me motivated and even getting an extra time from work on doing it is worthwhile. So, nothing beats face to face, that is true.

Have you had some kind of special techniques you use working virtually?

Communication is very important. I always try to respond to every single message, whether it is an email, telephone call or text message, whatever it is. I always try to reply very quickly, even if it is only to send back a smiley face or thumbs up, because I think it is really important people know that you have heard them, that you receive the message. To give an example, even if I am tired and I haven't got time to go back to them with a full answer, I still send a message saying: "I got your email, I will reply to you in three days" or "I've got your tweet, I'll be back to you in an hour" This is really important that people don't get silence, so this is my only secret to always try and keep communication flowing like playing tennis. If you want a guy to continue, you have to be able to hit the ball back over the net and keep it going. If you let the ball fall, then the whole thing stops.

Appendix 11: Interview with Nina Tune

Name: **Nina Tune**

Occupation: Project Manager

Company: SitePen

Industry: Software

Country: North America

Headquarter: Palo Alto, Silicon Valley, USA

Establishment: 2000

Interview: 24 October 2014

Your company is named as one of the most successful virtual companies over last decade. You have been working virtually for 14 years already. How have you achieved it as a project manager?

Yes, the people that have been there the longest are C-levels, Daren, who owns the company, the one who started it, Kerry Rise and Cory Rise also started the company with him and they have been here consistently the longest. I would say the second longest employee will be Chris and he is here for 7-8 years, we don't have many developers hanging around from the very, very old days, most everyone has joined within last 5 or 6 years.

It is a long time for a virtual company anyway, I wonder, how you actually achieved it.

You know, I think, it is a lot of things, I think, company is successful in general, because we have a very carefully structured contracts and when people come to us for help, there are two ways to get it: we call for them and we give them support, if they ask us any technical questions, we give them an answer. The company is successful because we have almost all the most professional virtual experts working in Site Pen, so they know everything about the code that anybody could possibly know. They are contributors to the open source project; they are creators of a new open source projects related to it. The second thing, I think, that helps us is we meet our contracts, cause sometimes, you know, people do contracts with the company and they say: 'ok, I will take 6 months to do it' and like 12 months later work is still not done. We do very small bite

size chunks of work, so, you know, we keep our contracts relatively short, we don't like them to go longer like 4-5 months and there is more work there, we will just do a separate contract. Sometimes we parallelize the work, so the multiple things are developed simultaneously. I think, what really helps us as a company overall, because we do have a reputation of if you need something done or you need an answer, you will come to us and we will give it to you without any farce, so I am sure there is a lot of things, that help our company growing and become what it is today, but the simple fact that our entire life centres around getting things done, getting things out the door efficiently and expediently and not being like all the other consulting company, that just drug your fee, collect money along away.

You appreciate a wide pool of talent you can access virtually, but you still employ designers and engineers only within one country. What is it connected with?

I can explain it to you very simply: a tax and employment law, probably the biggest blocker is that one. So, I know that they have in the past been a couple of employees from Europe, Canada. There is just the problem is that their particular laws, the work environment, how things are set up, things like that, that is one big thing as we are a small company, we are very lean and very efficient, we don't have armies of lawyers to do all that paperwork for us. So, if there was some superstar D developer we absolutely had to have, we would make that work, but that is entirely case by case and not something that I advertise. If we want to hire somebody from overseas, we will find them and we will decide if we can make it work and then we will do it.

There is another reason, time zones, one of the things that help us to work as a company is that we have e-zone of hours. If everyone is required to be online for 6 of those hours, it is like a 10 hours vent and you must be online for 6 of those hours, which is basically a work day and we are dealing with people overseas that means sometimes we are working in the middle of the night, which they might not like doing. So, yeah, it is a couple of different things, you know, I wouldn't say that we would never do that and we would never do it again, this is just a lot of hindrance to get through. Everything in the US based is simple enough; the only thing we have to deal with is tax laws between states, which hurt, difficult enough.

Do you have customers from abroad?

Yes, that's also a thing that really did to the hiring too, we do have customers that are overseas and we have couple in Switzerland, there are Canadian companies we are working with, we are working with one particular company which is global. We had different contracts with them and their offices are everywhere in the US, Hong Kong, England, so yeah, that's the thing, the problem is that sometimes all we did is master agreements that we know all the legal purposes of us working with them. Sometimes they actually say it has to be developed in the US, so even if we did have overseas people, we might not be able to work on projects, because those companies specifically say that work has to be done in the US.

The product you develop obviously requires creativity. At the same time lots of virtual team members notice that social isolation kills their creativeness. Do your employees have problems with being creative virtually? If not, how have you achieved this?

I don't even think it is a blocker, we have communication lines, they are all open right now, I am looking at my chat tabs- everybody is having a conversation about something right now. As far as talking to them, we do voice communication, hangouts, skype. The other thing that we do is what really helps our creativity is a very certain particular scheduling system, we kind of look at how much a developer do in a week, so we allocate I'd say about 75% of the time is what you are working on and the other 20% is a little internal project we are doing and this is a time for them to go and develop and sometimes there are standard projects, and some time there is just an idea that somebody comes up with and they are working on it to make it a reality. And 5% of the time we just spend on emails, talking to people. I actually think that they have more chance to be creative here because if you are sitting at the office and I used to be a developer, so I knew this, and you have a brainstorm and everything is great and you are getting interrupted every five minutes by the guy sitting next to you that needs help with something or by a project manager that checks with you 6 times per day to see what is done. It actually squashed more my creativity and my ideas, working in that environment, when I am here, I can just set my standards to doing something that is on fire and ignore my chat tubs and focus on what I want to do and make those things happen and I know a lot of developers who work this way. So, I don't think it harms creativity and in fact, I think it helps it; there is so much breathing room to just do what you need to do.

How do you conduct your project schedules? And how much does the communication matter?

Communication is everything, we just hired another developer and I am in charge of an orientation process and one of the first things I told him is that he is working from home and we are not there to see what he is doing, we are not able to look at his screen and make sure he is actually doing his work, so communication is everything, in fact, I would say we overshare. it is not like ‘ ‘ I’m doing this right now, I’m doing that right now, it is more like being verbal, talking, getting on skype when you need to, just a way of sharing other information.

It's hard to keep motivation high all the time working distantly. Do you think your employees are more motivated working virtually?

I think they are more motivated in general. We know the product plan, we set up the expectations- these are the things that need to be done, and we structure their priorities so they know what needs to be done. Quite frankly, if they are not motivated and they are not doing their work, they are not going to be employed here. It is like that with any other company: they know what needs to be done, they want to do it, even if that’s a project they don’t like, we are such a small group, they know it helps us overall, so we will suffer the most difficult customers and projects as we know the angle and this is business and it puts all of us all together.

You wrote that there are many project management techniques you use working with your team. Couldn’t you share some of them?

Actually project management for me is a point, I know there are official project managers, they get POP certifications and all these rules and guidelines and meetings and structure documentation, they truck everything and it might work great in a large corporation, I found it a complete waste of my time, so for me when u are a project manager at SitePen, you don't do everything by the book. There is a general guideline: you need to know the plan, know when the things are going to be done and that is really all that matters. If the thing that we usually do is a waste of time, we don't do it and we do an alternative. One of the things that work for us is that we band, we flex, and we change

all the time. Some things we tried, they were horrible, nobody liked them, and we come up with an alternative.

So my advice is go with what works and don't be so disappointed about the rules of project management. I will probably never get hired at another company as a project manager because of the way I manage. And it does work; I have not yet had a failure of anything. I kind of get to know my team when I come in, I know their personalities, who they are, what they are like, I know how they work, because everybody works a little differently.

We have got a guy, you give him a task and you are not going to hear from him and then he says: 'next', we have got a guy when u give him a task, he stands around looking confusing, worrying about how to put it in a code. So, I analyse everything, I think of when it is going to work best for a team as far as management planning, because there are different projects. We had one project when we had to follow the tasks and stand on top of the timeline, when another project: we just kind of meet once a week and say 'ok, this is on track, this is on track' and I give them targets for the next week and I leave them alone.

Do you have some current difficulties or have you had any? How do you manage them?

I'll be honest when u first starting and you are getting used to everyone and you are starting to learn the personalities and you are still pretty much blank slates to you, yes there is a lot of that. What happens for the first time is that you actually meet people in person, we haven't met in person, but we speak to them, we get to know them on skype, you have side chats with them that have nothing to do with work and eventually you get used to how they communicate and you can read words and understand what people are trying to say without intonations. For example, I have got a developer, who is always angry, he is always upset with something, world is not perfect and he goes off and it is a constant stream of text in my chat window and it is fine, because I've learned over this young fellow over time that about 85% of it is just him venting, but I also know enough to read between the lines so I know that something is critical. Yes, if you are just communicating with someone like customers as an example, I only know them for a very brief periods of time, I speak to them on the phone, by email and then is when I'm really careful to read and understand my tone, cause that person does not know me, they

don't know I'm joking, they don't know if I'm upset, happy, they don't know, if I don't care.

At first you just kind of get used to your teammates, get to know their personalities and after that- the end. We had a difficulty similar to this yesterday, when I was not going after a developer, cause what occurred was his fault and I was telling it to another project manager that I'm his boss and I'm saying you are doing this thing wrong and the developer got upset as he got it as attacking him and I actually had to get on skype with him and say: 'it is ok, u are doing its right, just keep doing your work, I'm here to help you, I am not blaming you for any of this and it took me a 10 min conversation to get him back to work. So if there is miscommunication with our team, we immediately get on skype and talk about it. That's just the thing, because the voice is much better than texting.

Appendix 12: Interview with Tomáš Rygl

Name: **Tomáš Rygl**

Project: International Sports Retail Branding Project

Occupation: Project Manager

Industry: Sports Retail

Industry: Marketing

Country: Czech Republic

Interview: 16 February 2014

Couldn't you tell more about a project you have been running last year?

We were cooperating with Finnish and Dutch teams, we were creating new brand for Chinese Investor. It was necessary to create marketing strategy for the market.

How many people did you have in your project?

There were a lot of people. In Czech Republic we had a group of 10 people, 3 teams: 3, 3 and 4 people in each team.

What were your responsibilities?

I was cooperating all three Czech teams and I was running the team of 4 people, cooperating with Finnish and Dutch people: one team from each country.

Was it your first international project?

I was cooperating in some Switz project; it was my Bachelor thesis, so I think, this was the second.

How was it different from traditional projects you have run?

It is a bit more difficult, because you cannot see people face to face, only via conferences, skype. I think it is slightly harder than running normal teams.

Have you faced any difficulties managing people distantly? How did you manage them?

The main difficulty I had was the different methodology used in Czech Republic rather than international teams had. Finnish people are teaching different things differently, so I say it is mostly an educational background.

How do you think, was it worth it, or you could do exactly the same job in Czech Republic?

I think it was quite cool and I liked it. It is something different and you can speak English and can see what the problem is between cooperation with international teams. It's quite nice; you can gain interpersonal connections and contacts.

Have you met face-to-face with teams from other countries?

Never. There was no problem with the trust.

Have you had any motivation issues?

We had no problems with motivation.

Appendix 13: Interview with Kieran Beal

Name: **Kieran Beal**

Project: International Sports Retail Branding Project

Occupation: Project Manager

Industry: Sports Retail

Country: Finland

Establishment: 2014

Interview 6 May 2015

Mr Beal, could you tell more about the project you were managing? Goals, the number of people involved, across how many countries it was dispread.

The project involved building an international sports retail brand (with accompanying Market Research), and was spread across 4 universities in 3 different countries, two in the Netherlands, one in Czech Republic and one in Tampere, Finland. Around 50 students in total were involved.

Was it your first experience of running virtual international project?

Yes

What benefits of virtual projects have you found managing your dispread team?

We were able to get a large scope of information from different countries in the research phase of the project. We could have gained some knowledge from a desk research, but by actually working with students in their respective countries it gave us far more insight.

Was your communication with other international teams successful? Have you faced any problems, collaborating with workers from abroad?

There were issues, yes. I found it is far easier for people to avoid work by just not replying to attempts to communicate with them than they would if working face to face.

Was virtual collaboration important for you?

Our project required a lot of collaboration, as each group from each university relied on others doing work parallel to ours, and if this was not completed, we were unable to continue working as we required information from all countries to be analysed before we moved forward. This became an issue when we suddenly stopped receiving any updates or communication from one of the groups, work ground to a halt for a precious few days and actually required my team to spend an entire weekend at university to catch up the work to keep us on schedule. Making sure all parties involved in a virtual project are collaborating together and sharing information (even if it's negative information e.g. "I'm unable to meet the deadline because...") is very important to the success of the project.

How did you manage cultural diversity? Did you get any conflicts based on cultural differences?

Initially I would have said that there was very little issues regarding cultural diversity between our groups. However I actually went on an exchange to one of the universities in the Netherlands that we worked with on our virtual project. An issue that was faced by the Dutch students was that they struggled to meet deadlines; they blamed an 'exam week' for this issue. At the time we did not really understand (we all have exams, of course), and didn't think it was a very good excuse for missing deadlines. However when I went to Holland I found out that they have very intense exam weeks at the end of each period, very different to the culture in Czech Republic and Finland, this difference in educational style provided a diverse issue that, in retrospect, our project groups did not manage very well as we were did not understand clearly the issue we faced.

Did the lack of face-to-face communication impact the productivity of the project, in your opinion?

Yes, because it is easier to avoid work when there are no face to face meetings. One piece of feedback provided by all project groups in all countries was that we should all meet at least once at the beginning of the project.

Was it hard to maintain the motivation distantly?

Yes, as pressures from outside the project started to affect the students, motivation fell.

Was trust building essential for the success of your project? How did you make it work?

There was little trust building done between the groups, except some opportunity to get to know each other and to share info about ourselves at the very beginning. So it's hard to say if more trust building exercises would have increased the success of the project. It may have made people feel guiltier and like they have let team mates down, if they did not feel like total strangers.

What communication tools did you use to collaborate distantly and which of them were the most helpful? Why?

We used Skype, Facebook and Dropbox, as well as Microsoft group video chat software. This was the most helpful as it enabled all four classrooms to engage virtually so we could have web 'conferences'. As we were designing our approach to the project, these were crucial.

What is your advice for a virtual project manager?

Running a virtual project is very different to a face to face project, and should not be treated the same way. Always be available and ready to talk about the project, as people may approach you at any time. Stay patient if people don't understand initially (especially in an international environment). Also be prepared to either work very hard to build strong bonds between the virtual groups, or prepare to deal with issues regarding work output with frank, honest words. There is no point being vague and unclear in VPM, as it will only make things slower for everybody.

May I use this material for my Final Project?

Of course, yes.

Appendix 14: Interview with Sy Holsinger

Name: **Sy Holsinger**

Occupation: Senior Strategy & Policy Officer

Company: EGI.eu

Country: Italy

Establishment: 2013

Interview: 28 November 2014

How many Virtual Projects have you participated in?

I work in European Commission Funded Research and Development Projects. The European Commission submits calls and proposals for very specific projects, which have a very specific budget with very specific topics and you put together what the Commission is looking for, so what the commission likes sometimes is to have a European coverage, so typically you have to have a number of different countries that are part of your project. This immediately suggests the distributed environment, so that was one of a very large scale project and I worked in several dozens of these projects over a course of 10 years now. One means on working on this kind of world scale European wide project which comes with a very specific project management framework and schemes you adapt and repeat across the different projects. Then, inside the EGI.eu, which is my company, we provide distributing computing and Cloud computing, resources and storage facilities in order to support research science. On national basis, in Italy and France they have started university level, when they share computing facilities between research institutes and universities across the nation, what basically creates the infrastructure of computers. My company co-ordinates this on European level.

One of the services we provide, this kind of virtual teams, that we have a wide range of expertise around the communities that are working in the variety of different scientific disciplines, whether it is biology, chemistry, astrophysics, so on. Whenever people come in, they sometimes need help with their scientific problems and the lack of skills available. So, what we do is putting together the team, contacting all the experts, either in technological field or a scientific discipline and we build a team in a short-term project, where we get people together, identify the problem, and then provide the service.

So, there are 2 different levels: project management on European scale and short-term virtual teams that solve very specific problems.

So may we identify the reason for your virtual activities as a wide pool of talent?

Yes, absolutely, that is the main driving principle, because it is just impossible to solve some problems in a single organization. Because sometimes it is easier to keep remote working and save the knowledge and expertise.

Across how many countries is your team spread?

The main project across Europe has 54 countries. I was also involved into smaller projects, with 6 or 8 countries involved.

Number of team members in your Project?

One of the virtual teams that I am managing right now has 40 members and I run a smaller one, which is about 11 members in that one. ... If I look at my individual company, we have a couple of different departments that do technology, operations, etc., we have communication team, strategy and policy team, about 5 different teams, that have 4 people per team. My team is actually unphysically based in Pisa, my immediate line manager is in Amsterdam and we have a person working in the UK. So, as a small individual company team, we are distributed.

You have mentioned some management techniques, what did you mean by that?

There is a couple online management tools you use, BaseCamp App, WikiMedia Pages, which provide you with an online web-page where you can get different people access to the project, and where you can keep documentation, scheduling, to-do lists, and this is a way to manage projects online. For some of our large projects we use this kind of tools, that are easy to manage, for a smaller, virtual tool sometimes you can just create a Wiki Page, where you host an information. For collaborative document production, it is quite easy to use Google Docs, and Google Spreadsheets that you can share with people.

You need a place to host an information, whether it is a Wiki Page or a management tool, you need a mailing list to set up all the people to have one email communication, you need a place to host documentation and scheduling calls can be quite tricky to get everybody at the same page, so there is a very nice online system, which is called Google Doodles. So, we use a Doodle tool for scheduling online meetings if we can meet at a fixed time, once or twice per week.

It is more difficult to establish trust and friendly working environment in virtual team in comparison with traditional team?

For a management point of view, it does take a lot of time. We tried to have somebody internally who was tracking all of the virtual teams to make sure they all were on schedule and the main issue when virtual teams break down in terms of an original time planning is poor management. In case of virtual teams it is not everybody's job full time, so you need a lot of pushing from the manager, activities need to be clear, everything needs to be documented and people really take for granted the really simple things like setting up a doodle, having an online agenda somewhere. So, creating agendas, articulating action points that have an actual number on an individual person with the timeline, and then to follow up that, next the first thing that we do is to go back to the action list to make sure everybody did what they were supposed to do. So, people can take for granted what can be considered as management one on one, but it is not as obvious.

One time at the conference we had a session where virtual teams we were running inside EGI and one of the chairs of the session asked me: "Your virtual team run very well, could you add one slide to say how you do it?" I said: "ok, I'll put some slides" which are basically what I just told you. I thought it was silly and I almost went through the slides quite quickly as I felt quite embarrassed as all I considered was basic management and at the end of my talk when I asked whether there are any questions, one guy asked me to come back to the slide number 3. I went back to that management slide and that guy said: "that is probably one of the most important slides you can have because people take this for granted." And that made me realise that people who do those things they think it is the minimum effort, but actually you realize this is not that insignificant as you would think. And that is the reason why most virtual teams fail, because it does take planning and organization and people need to be told what to do so they are not lost in their own daily work.

Do you travel a lot in order to run face-to-face meetings with your partners? Does it help rather than working virtually?

In case of virtual teams, no matter, how much you can reduce expenses from the perspective of travel and travel costs and time, it will actually never replace face to face. So, even in a large scale we still organize face to face meetings very often. One of the smaller projects I was involved in, we tried to do face to face once per 2 or 3 months.

So, in terms of a large scale project face to face is once per year and I am not sure it is enough, but I have had some smaller virtual teams, like scientific disciplines once and we have never met face to face. I think that still you have to sometimes meet together and have discussions face to face; I don't think it can be replaced, but I think virtual teams provide a higher return on investment as you can get a lot of good people in a team and answer any type of scientific problems. For my point of view, it depends on a scope and a scale, but I think you need some type of periodic face to face.

All the projects we have, there is always travel budget included in the project. Depending on the scale of the project, European Commission has some rules and regulations about traveling and things like that and typically there is a rule, if your travel budget is more than 15% of your overall partner budget, than it requires a justification.

Do you find virtual teams more efficient nowadays in comparison with traditional ones?

I kind of see it as an apples and oranges comparison. I think if you can allow people to work together in your office, yeah, probably face to face meetings once a week are quite efficient. The reason for virtual teams I do not be the cut of budget.

I would not say it would be more efficient but I am not sure we would compare apples to apples.

Appendix 15: Interview with Javier Jimenez

Name: **Javier Jimenez**

Company: EGI.eu

Occupation: Business Development Expert, Virtual Team Leader

Industry: consultancy, education,

Project: VT Business Engagement

Country: Spain

Establishment: 2014

Interview: 24 December 2014

Couldn't you tell more about VT Business Engagement project?

EGI works with SMEs on knowledge transfer of the research, universities, and other research centres were generally concerned that it is transferred to the society, which creates an economic growth, job positions, and innovations.

It has been a long time in Asia, where business has been observed and the framework for different organizations was created. That helped EGI to relate with business organizations, mainly SMEs.

Across how many countries was it spread?

EGI is dispersed among more than 50 different countries; my project involved 30 people between 12 or 15 countries, different nationalities.

How did you work together? Have you ever met your workers face-to-face during the project?

Some of them, yes, some of them I met in different conferences, events and others I have never met.

Was it easy for you to manage virtually?

Well, virtual project is not an easy task, in this case, this is something that I have done before, but with people, we had more in common. I mean, working in the same institu-

tion, in the same company. In a virtual case it was a bit more difficult, because people are from different organizations with different frameworks. It was not more difficult because it was a virtual team; it was difficult because the nature of the project and the environment itself was already difficult.

What was the hardest issue leading virtually?

Achieving the objectives. People were very busy with other business and that was only a part of one work for them.

Did you have any special techniques managing distantly?

Putting a lot of personal effort as a leader of virtual team, I had more time for making virtual things easier for team-members.

Could you give practical examples?

In practice, all the objectives of the work were prepared with the help of business engagement program for EGI. I started preparing a draft, in which the other people could contribute, so it was easier for people to contribute with something or give comments on something. So I collected the feedback, made a revision and they continued with the work. Another example was sharing information by emails and trying to keep in contact, keeping communication alive by sending notification to the mailing list of the team.

What communication tools have you used within the team?

The problem was that sometimes people remain silent; it is always like that during the meetings. There are always some people, who communicate more or who are eager to give their opinions and participate. In order to make conversations more meaningful, I try to have individual conversations by skype with those people, and in this way it is easier to understand people's problems, opinions.

Especially in the end I tried both general meetings and personal conversations with team workers.

Have you got any other project management techniques?

Not really, just trying to keep communication alive. Sometimes it is useful to have a general call to all the people, but I noticed that for some reasons when you are talking on individual basis, people feel more confident, they are not constraint with what the other people have said and thought. So, it is easier to be creative and get more ideas, which you can have on the paper and present at the general assembly.

Another technique which helps to achieve the objectives is writing down all the creative ideas and tasks after the meetings and coming back to this list on next meeting.

How did you conduct your project schedules?

We spend a lot of time in the beginning of the project to familiarise with our goals and milestones.

During the first call we have people introducing themselves, even though most of the people already know each other, this is something you cannot take for granted, that is an opportunity for everyone to get used to the partner's voice and the manner to speak.

How did you manage to set up trust between members?

By inviting them to communicate, fulfilling the promises. If we agreed that something has to be done by the next call, making sure that task has been addressed, may be not always complete because it was not always possible, but at least, not forgotten.

I tried to create the environment where everyone was interested and welcome.

In overall how can you describe your experience in virtual management?

It is not very different from physical co-ordination and management, some things are easier to do in virtual way, and for other things it is more difficult. Face to face communication always helps especially if people do not speak the same language, it always helpful to see each other's faces.

How many projects have you managed other virtual projects?

All in all, 12, I guess.

What is the main wisdom in virtual team management, in your opinion?

Create a good environment, invite people to participate, make people feel comfortable, work hard to make things run.

May I use this interview in my dissertation?

Yes, you can use it.

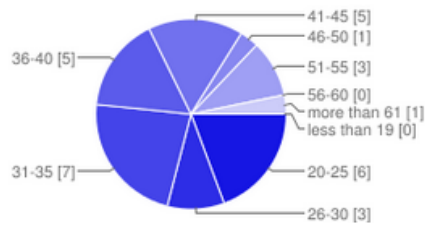
Appendix 16: Summary of Virtual Team Management Questionnaire Responses

Personal Information

Full Name:

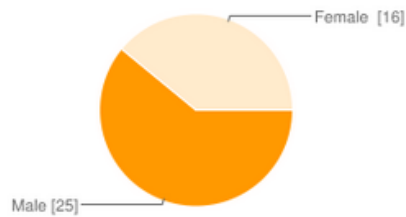
Owen Appleton
Brigit Michael
Dana DeLaurentis
SDavis
Dean Flanders
Dean Landolt
Sy Holsinger

Age:



less than 19	0	0%
20-25	6	14.6%
26-30	3	7.3%
31-35	7	17.1%
36-40	5	12.2%
41-45	5	12.2%
46-50	1	2.4%
51-55	3	7.3%
56-60	0	0%
more than 61	1	2.4%

Sex:



Male	25	61%
Female	16	39%

Country of Residence:

Donetsk Peoples's Republic
Greece
Italy
Spain
Vietnam
Finland
Lithuania

Nationality:

AMERICAN
Greek
Vietnam
Czech
Finland
US Citizen
hobbit

Organization:

www.fmi.ch
InSync Training
SitePen, Inc.
University of Technology Brno
SitePen
Nokia
SoftwareMill

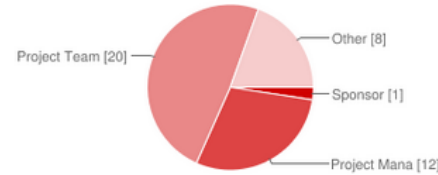
Position:

vp strategy
Senior Java Developer
Executive Director
senior research fellow
Head of Informatics
Information Technology
Synchronous Learning Expert

How many Virtual Projects have you participated in?

30
Over 100+
5
20+
Many
15
100's
20

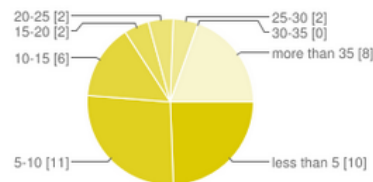
What is your role in a work of the projects?



Sponsor	1	2.4%
Project Manager	12	29.3%
Project Team Member	20	48.8%
Other	8	19.5%

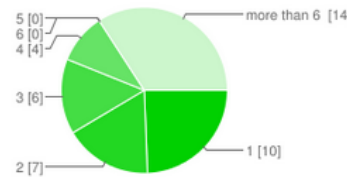
Virtual Team

Number of team members in your Project



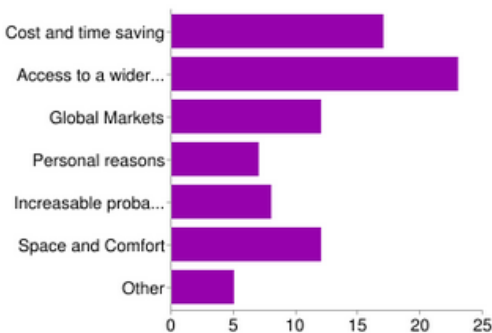
less than 5	10	24.4%
5-10	11	26.8%
10-15	6	14.6%
15-20	2	4.9%
20-25	2	4.9%
25-30	2	4.9%
30-35	0	0%
more than 35	8	19.5%

Across how many countries is your team spread?



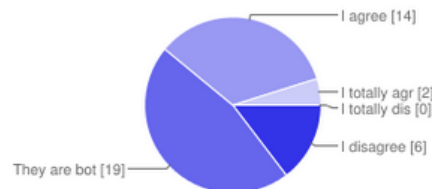
1	10	24.4%
2	7	17.1%
3	6	14.6%
4	4	9.8%
5	0	0%
6	0	0%
more than 6	14	34.1%

What is the main reason for the team to be dispersed?



Cost and time saving	17	41.5%
Access to a wider pool of talent	23	56.1%
Global Markets	12	29.3%
Personal reasons	7	17.1%
Inceasable probability of discovering the new innovations	8	19.5%
Space and Comfort	12	29.3%
Other	5	12.2%

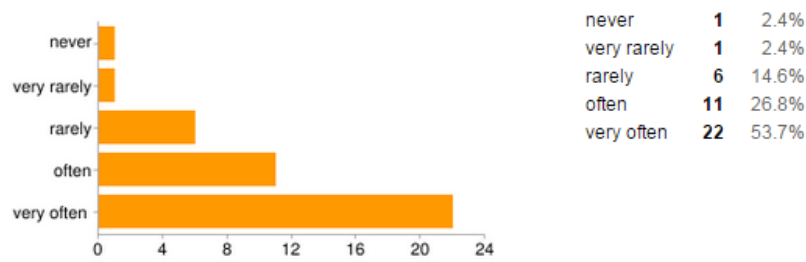
Virtual Teams are more efficient than Traditional Teams nowadays



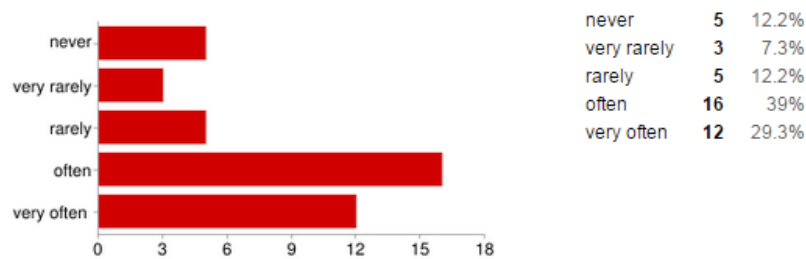
I totally disagree	0	0%
I disagree	6	14.6%
They are both equally efficient	19	46.3%
I agree	14	34.1%
I totally agree	2	4.9%

Communication

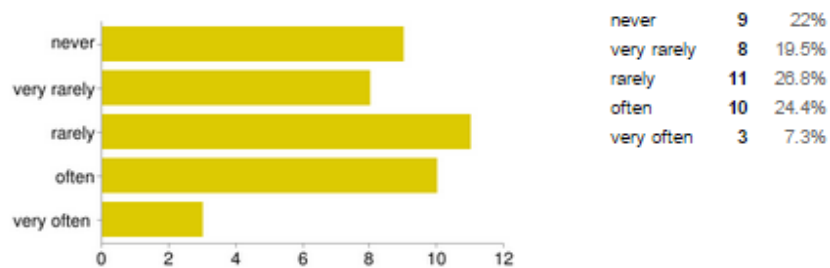
E-mails [Your cooperation with a remote team member is carried out via:]



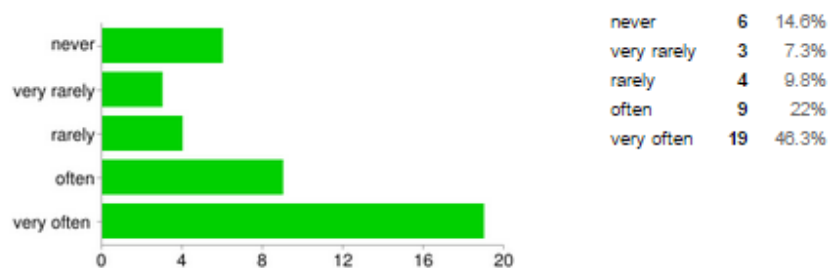
Audio Conferences [Your cooperation with a remote team member is carried out via:]



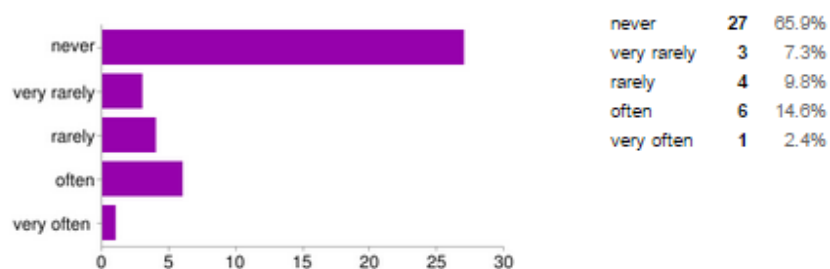
Video Conferences [Your cooperation with a remote team member is carried out via:]



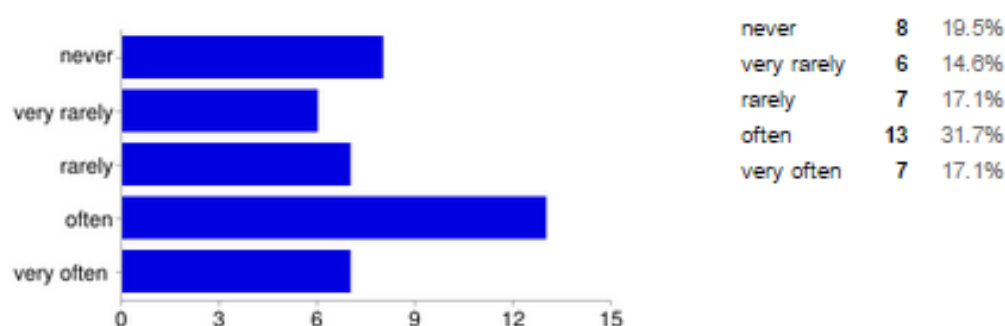
Instant Messaging [Your cooperation with a remote team member is carried out via:]



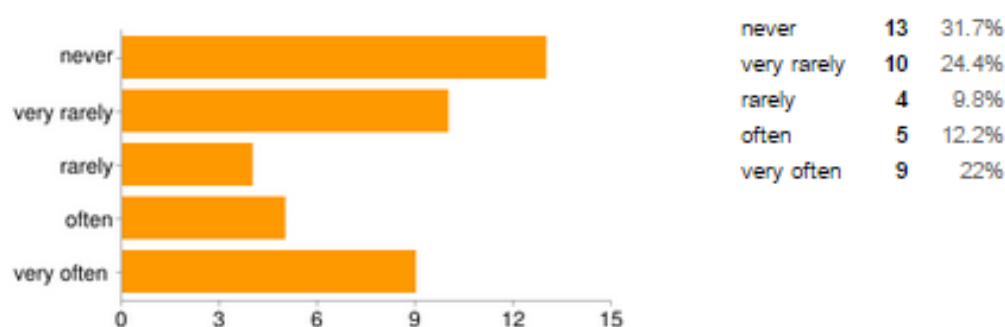
Extranet [Your cooperation with a remote team member is carried out via:]



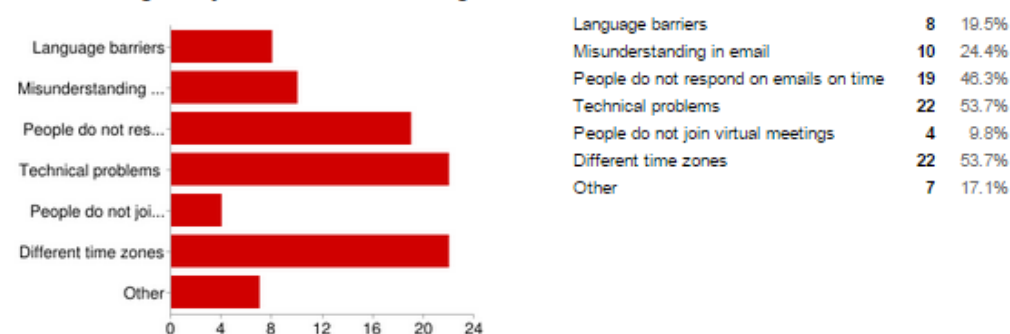
Project's web site [Your cooperation with a remote team member is carried out via:]



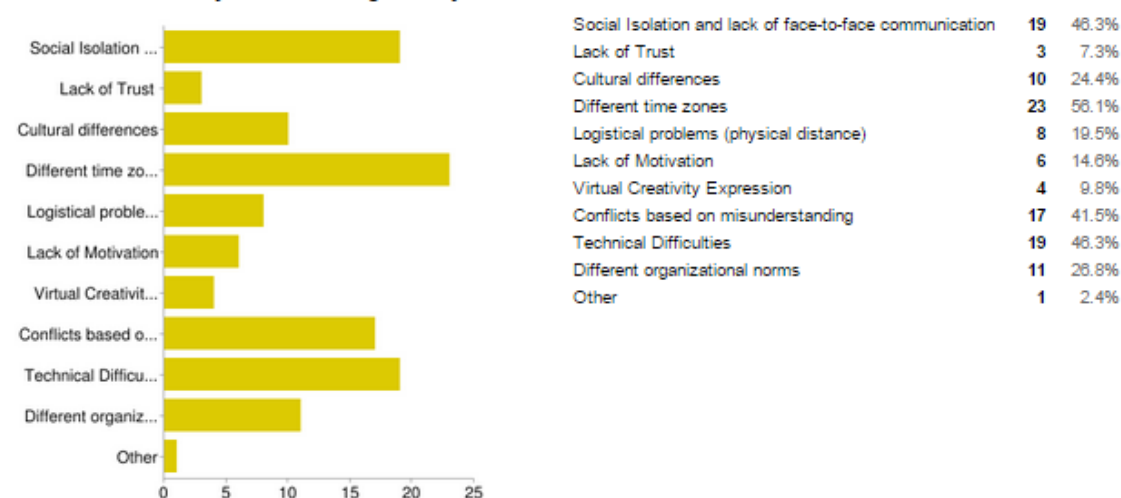
Social Networks [Your cooperation with a remote team member is carried out via:]



What challenges do you encounter when using IT tools for communication?



What difficulties did you face working virtually?

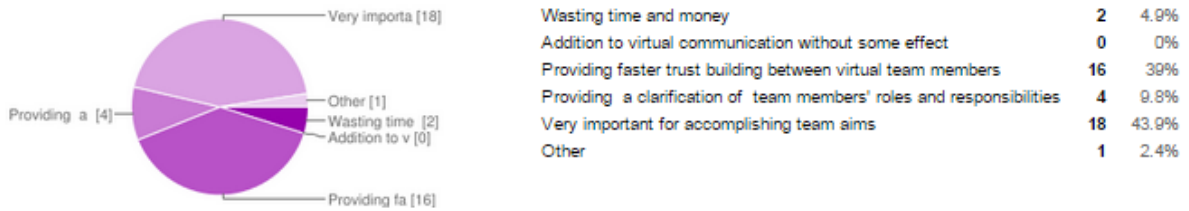


Trust

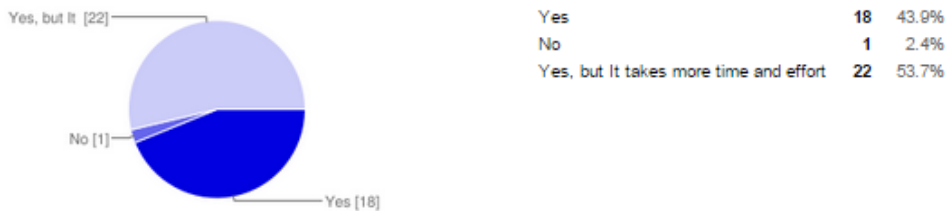
It is more difficult to establish trust and friendly working environment in virtual team in comparison with traditional team



What is your opinion about periodic face-to-face meetings between virtual team members on the same place?



Is it possible to build trust between team members only via information mediated by electronic means, without previous face to face introduction between team members?



Is there any specific Management techniques your project manager used working within your project?

- mentors, sharing kudos, virtual "water cooler," virtual birthdays/showers, training sessions, practice rooms
- clear task divided and deadlines stated, constantly update short-term goals, meeting agenda should be prepared and aims at some points trello
- Must have the ability to not just make decisions, but to accurately summarise group discussions coherently and clearly.
- Got salary for nothing, I simply jealously admire her!
- Empathy?
- constant and consistent communication, project management tools like basecamp or activecollab, regular follow-up and check-ins

Number of daily responses

