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Remote Work
DEMYSTIFIED

A Practical Guide by
Experts for Leaders

Abstract

The idea behind this master thesis was to create a field guide for leaders with best practices on how to deal with the challenges presented by remote work today. Additionally, the intention is to provide all necessary information regarding the basics of remote work so that any reader can get a broad overview and gain valuable insights, no matter how deeply they were previously exposed to the topic.

Interviews with experts on remote work—managers who have successfully worked in various remote work settings for multiple years—highlight the most important aspects that managers need to get right in order for remote work to be effective. These best practices are presented in three categories.

1. Leadership: How do you create and uphold a company culture when your team or your whole company is working remotely?

2. Collaboration: How do you ensure that your employees work together effectively? What guidelines and tools are needed?

3. Recruiting: How do you hire remote workers? Are there differences to hiring for a co-located role? Do you need to meet in person?

Keywords: Remote Work, Telecommuting, Work from Home, Work from Anywhere, Home Office, Leadership, Management, Fully Distributed Company

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List of abbreviations

CCO   Chief Content Officer

CEO   Chief Executive Officer

CV   Curriculum Vitae

ICT   Information and Communications Technology

KPI   Key Performance Indicator

MBA   Master of Business Administration

OKR   Objectives and Key Results

TEA   Telework Enhancement Act

WFA   Work from Anywhere

WFH   Work from Home

1 Introduction

1.1 Background

Throughout human history, advances in information and communications technology (ICT) have always had a tremendous impact on how business is conducted (cf. Neufeld, Wan, & Fang, 2008, p. 228). Nowadays, innovation is driven by companies that utilize the possibilities of an ever connected world thanks to the internet. Not only has this changed the way these innovative and successful companies interact with their business partners and customers, it has also had a profound impact on how modern companies operate. For example, agile methods—once only found in software development processes—can be increasingly found in a variety of industries today (cf. Beaumont, Thuriaux-Alemán, Prasad, & Hatton, 2017, p. 19). While the resulting flexibility for both employer and employee used to be exclusively in demand in the software development industry, today it is an effective means of ensuring profitability and competitive ability of companies in rapidly changing markets (cf. Denning, 2017, pp. 12-14).

In addition, flexibility with regard to workplace arrangements are nowadays also demanded by employees, who increasingly pay attention to the compatibility of family and career—or their work-life balance in general—as it has become an important criterion for assessing the attractiveness of a potential employer (cf. Kossek, Thompson, & Lautsch, 2015, p. 16). Remote work is already being widely used as a method to align these two goals and is becoming more and more popular (cf. Allen, Golden, & Shockley, 2015, pp. 40-41).

If one considers the advantages of remote work for both companies and employees, it quickly becomes clear why:

From an economic point of view, companies can benefit from remote work because it offers the opportunity to reduce fixed costs and operate in a more agile manner. If some or all of the employees work remotely, costs can be reduced in several key areas; for example, less office space has to be rented and maintained. This is an enormous cost center, especially in areas of high population density. If the hiring processes are also designed accordingly, candidates can be assessed and hired much more quickly; after all, the interviews and assessment tasks no longer have to take place on site. In this case, there is no lack of office space or expensive

relocation packages for employees that might pose a problem—even country borders no longer represent an obstacle in case a company grows rapidly within a short amount of time; it also effectively enhances a company's search for talent, giving access to a global pool of highly qualified individuals.

Additionally, employees also benefit from the flexibility that remote work offers. A partial list of potential advantages:

- Long commutes are eliminated, which can save both time and money.
- The job search no longer needs to be restricted to a certain area or linked to a move; more job options are viable for job seekers.
- Partners who are both career driven enjoy more flexibility, as their employers no longer need to be located within reasonable range.

Remote work can therefore be a solution to strengthen a company economically, and at the same time it is offering employees the kind of work-life balance that they seek and deem attractive (cf. Lautsch & Kossek, 2011, p. 10). Additionally, this also improves a company's ability to attract and retain talent, further reinforcing the point of remote work being beneficial to a company's economic potential.

However, critics note that particular challenges arising from this way of working need to also be considered and addressed. Some of these critics even categorically reject remote work for reasons like reduced creativity, innovation and lack of teamwork because people no longer share the same space—although these problems can be alleviated with experienced remote work leadership (cf. Emerald Group Publishing, 2013). Therefore, executives in particular are faced with distinct challenges: How do you manage employees who are physically separated from each other? How is it ensured that every employee still shares the same vision and that cooperation and productivity is not negatively impacted?

1.2 **Objectives and research questions**

Within the framework of this master thesis, research will be carried out into how managers and leaders should deal with the challenges arising in particular from remote work and which

specific recommendations can be derived from both the current state of research and current best practices. Due to the fact that leadership methods and employee expectations change rapidly in today's workplaces, an emphasis is placed on the approaches and methods currently found within companies that successfully make use of remote work.

Therefore, the main objective is to explore the current best practices and recommendations regarding the following research questions:

- What particular challenges related to managing remote workers do managers face today?
- Which leadership practices help overcome these challenges?
- Which tools can be used to enable and support modern communication and collaboration channels?

Since the three questions are intertwined, they all receive the same attention; meaning that the main research topic of this paper is the sum of these three questions. Splitting the research topic was not only necessary in order to allow for the holistic approach to remote work of this paper, but it also helps to structure the empiric study accordingly.

Overall, the goal is not only to show managers the specific skills that are required to lead remote workers effectively, but also to identify best practices that have been established over the past years. Therefore, the target audience of this paper is anyone who is currently in a leadership position within an organization in which remote work is practiced and wants to broaden their perspective, as well as leaders who want to prepare themselves for future positions in which they might be responsible for remote workers—or in which they themselves may want to introduce remote work as an additional way of collaboration.

For any reader seeking additional knowledge on remote work, it might also be helpful to clearly define what this paper does not intend to provide: Neither does this paper seek to give a comprehensive overview of the history of remote work, nor does it discuss in great detail the viability of remote work within certain industries and its overall effectiveness; these topics are beyond the scope of this paper and will merely be touched upon lightly. In addition, a very important aspect of remote work is completely excluded: The legal challenges that businesses in general need to be aware of. Navigating the legal landscape surrounding remote work on an

international scale is such an intricate and complicated matter—doing it any form of justice within the scope of this thesis would have been impossible. Compliance is of utmost importance for every company and therefore a high-priority task to keep an eye on for managers; seeking legal advice is strongly recommended.

1.3 **Research approach and methodology**

This paper is written with an explorative approach supported by qualitative research in order to gain new insights regarding remote work that have so far not been documented in this manner. For this purpose, literature review is forming the basis; it is supposed to give a comprehensive theoretical background on remote work as well as identifiy current best practices that are already established. The empirical part that follows consists of nine semi-structured expert interviews with experienced leaders who have been exposed to remote work for several years. The qualitative research methodology was chosen because this format allows to gain further insights into a manager's thought process. Since leadership methods depend on a wide variety of aspects, ranging from broad cultural to intricate personal factors that need to be taken into consideration, insights into the decision making process are vital in order to truly understand the reasoning behind a manager's actions.

1.4 **Structure**

This master thesis consists of six main chapters and follows a funnel structure: First, a broad overview of remote work is given as a basis in chapter 1, the current chapter, providing background information and an outline why it was chosen as a research topic and what aspects are particularly of interest in the context of a Master of Business Administration (MBA) course. Chapter 2 defines some of the key concepts and terminology of remote work as they are being used today. These definitions and the introductory information from the previous chapters are then being expanded upon in chapter 3, in which the current state of research regarding the challenges leaders need to deal with in various remote work settings are addressed. Additionally, practical examples are given in the form of three companies that managed to thrive while being built around the concept of remote work. The intention is to provide all necessary information regarding remote work so that any reader can get a broad overview and gain valuable insights, no matter how deeply—or not—they were previously exposed to the

topic. Chapter 4 offers insights on the research methodology that was applied in chapter 5, the empirical chapter of this paper, in which the results of the expert interviews are laid out and discussed. In chapter 6, the final chapter, a conclusion and an outlook are presented to the reader as well as thoughts on shortcomings within the scope of this paper and recommendations for further research in order to address said shortcomings.

Finally, a brief note on the conventions used regarding the academic citations in this paper: When the overall content of an entire publication is to be considered, the author and year of publication are given. Page numbers are added when specific thoughts from within a publication are taken. Definitions without citation are by the author of this paper. A special emphasis has to be placed on this point due to the fact that the field of fully distributed remote work companies is currently developing and either none or only a very limited number of scientific papers could be found on some topics that are essential to be discussed. For example, no research paper or technical literature could be found that defines distributed satellite teams. Common knowledge as well as common knowledge within the field of remote work will not be cited (cf. Stickel-Wolf & Wolf, 2019, p. 233).

2 Remote work: Definition, key terminology and setups

2.1 Remote work: Key terminology

Remote work isn't an entirely new idea: Worldwide, millions of workers already have—or currently are—working remotely. Companies are embracing the benefits of remote work at a steady pace (73 percent increase in the US from 2005 to 2011), thanks to modern communication technologies and tools that enable an effective means of collaboration, no matter the distance between the individual workers. (cf. Fried & Heinemeier Hansson, 2013, pp. 7-9)

However, the terminology surrounding remote work has shifted multiple times over the past decades. When remote work first started to gain traction towards the end of the 20th century, telecommuting was the dominant term (cf. Avery & Zabel, 2001, p. 6). There are numerous other terms: flexible workplace, home office, mobile work, telework, virtual teams, work from home, work from anywhere—yet all of them essentially communicate the same idea: An employee not working at a central location of their employer's choosing, but someplace else. Each term, however, may come with a certain additional meaning or condition attached to it. For example, telecommuting is sometimes used to imply that a worker is still provided with a traditional workplace, but can chose to work from home every now and then. In this scenario, companies usually grant their employees a set amount of days per week that can be used to work remotely.

In general, the technical literature and most companies predominantly use the terms remote work and telecommuting today; sometimes the two term are used interchangeably within academic papers and sometimes with a distinct additional meaning attached to them, further complicating the matter (cf. Allen, Golden, & Shockley, 2015, pp. 42-43). When a distinction between the two terms is being made, telecommuting is, as described above, more likely to be used to describe a setup in which an employee is still located physically close to the office and telecommutes only some of the times. Remote work more commonly describes a setup where an employee is not in close proximity to their employer's office and works remotely most or all of time.

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However, a case is to be made that both terms by themselves not adequately describe either scenario. Whether telecommuting and remote work are offered as an option for an employee, the frequency with which it can be used and if it is required for the employee to be located in close proximity to the company are all additional dimensions that need to be defined in each case (cf. Asgari & Jin, 2015, p. 8). Therefore, these terms will be regarded as interchangeable in this paper with no dimension automatically attached to either—meaning that without additional specifications mentioned, they always represent a spectrum. With consideration to the usage of remote work as the seemingly most common expression encountered in the workplace, this paper will predominantly use the term as well.

Term used	Definition	Publication
Distributed work	Employees work over geographical boundaries and to some extent work with computer-mediated communication in order to achieve a common goal	Bosch-Sijtsema, P. M., & Sivunen, A. (2013)
Flexible work arrangements	Alternative work options that allow work to be accomplished outside of the traditional temporal and/or spatial boundaries of a standard workday	Shockley, K. M., & Allen, T. D. (2007)
Remote work	A work arrangement in which the employee resides and works at a location beyond the local commuting area of the employing organization's worksite; generally includes full-time telework and may result in a change in duty location to the alternative worksite	U.S. Office of Personnel Management. (2013)
Telecommuting	The use of telecommunications technology to partially or completely replace the commute to and from work	Mokhtarian, P. L. (1991a)
	Working some portion of time away from the conventional workplace, often from home, and communicating by way of computer-based technology	Golden, T. D. (2006b)
	Work conducted from home that is often supported by telecommunications technology	Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006)
	Work arrangement in which employees perform their regular work at a site other than the ordinary workplace, supported by technological connections	Pinsonneault, A., & Boisvert, M. (2001)
	The use of information and communication technologies to replace or substitute for work environments that require individuals to commute to a traditional office	Bélanger, F., Watson-Manheim, M. B., & Swan, B. R. (2013)
	Systems that enable employees to perform regular, officially assigned duties at home or at alternative work sites geographically convenient to their residences	Pearce, J. (2009)
Telework	Work performed by (a) those whose remote work is from the home or a satellite office, (b) those whose telework is primarily in the field, and (c) those whose work is "networked" in such a way that they regularly work in a combination of home, work, and field contexts	Morganson, V. J., Major, D. A., Oborn, K. L., Verive, J. M., & Heelan, M. P. (2010)
	A form of work organization in which the work is partially or completely done outside the conventional company workplace with the aid of information and telecommunication services	Konradt, U., Schmook, R., & Malecke, M. (2000)
	Work that relies on technology-mediated communication and sophisticated information-processing capabilities instead of colocation for the production and delivery of work outputs	Garrett, R. K., & Danziger, J. N. (2007)
	A work arrangement in which employees perform their regular work at a site other than the ordinary workplace, supported by technological connections	Fonner, K. L., & Roloff, M. E. (2010)
Virtual teams	Spatially or geographically dispersed work arrangements that are generally characterized by a relatively short life span, technology-enhanced communications, and a dearth of face-to-face interaction	Tworoger, L. C., Ruppel, C. P., Gong, B., & Pohlman, R. A. (2013)

Table 1. Overview of term definitions (Source: Allen, Golden, & Shockley, 2015, p. 43)

2.2 **Remote work: Setups**

Having defined the terms that describe remote work, now an overview of the multiple remote work setups can be given. Various setups, meaning different ways of incorporating remote work within a company, are plausible. These setups can be grouped into four main categories:

- Remote work not allowed: All employees work in the same office.
- Partial remote work: Some employees work remotely some or all of the time.
- Remote work teams: Satellite teams (teams in different locations) or fully distributed teams (teams consisting exclusively of remote workers).
- Fully distributed companies: Everybody works remotely.

Each of these setups comes with its own set of benefits and drawbacks and requires a different leadership approach from managers. If, for example, only one employee within a team is working remotely, you still need to establish communication tools and processes in order to promote and enable effective collaboration with all team members. However, the team might feel that this additional overhead is a burden and be reluctant to adhere to the processes—why invest in so much overhead for just one remote worker? This outlook changes drastically once the majority or even the whole team is working remotely: Every team member has to rely on the continuous use of digital communication channels in order to work effectively—making the benefits of these processes inherently clear to the whole team.

Since neither current technical literature nor peer reviewed journals could be identified that provide descriptions of the various forms of remote setups that exist in practice, it was necessary to focus on a description of what is currently experienced by companies. Getting an overview of these various forms of remote work is necessary in order to understand the complex leadership challenges.

It is important to note that even though the descriptions include all forms of remote work, the qualitative research of this paper will focus on fully distributed teams and companies. The following definitions will be the basis for discussion:

2.2.1 **Co-located work**
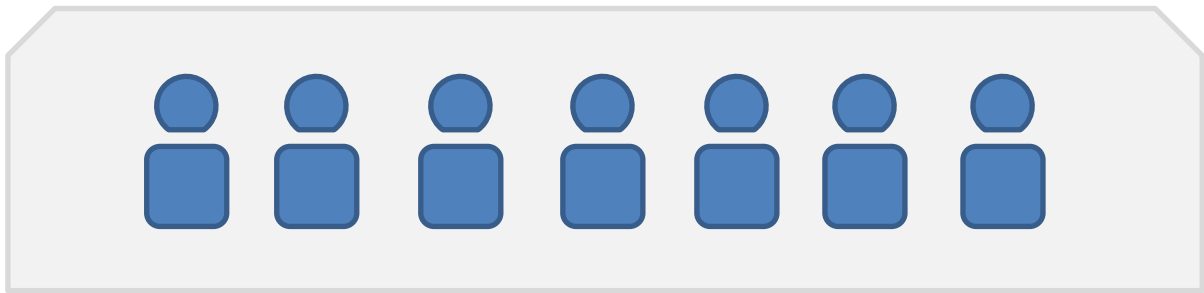
Figure 1. Visualization: Co-located work (Source: Own figure)

This is the traditional office setting in which all employees work in the same office building on a daily basis. It also implies that there is only one headquarter building and no other offices anywhere else, since this would require teams to collaborate remotely, effectively turning this into a satellite team scenario. Remote work of any kind is not allowed in this setup, all employees are required to do any and all work in the office.

2.2.2 **Optional remote work**
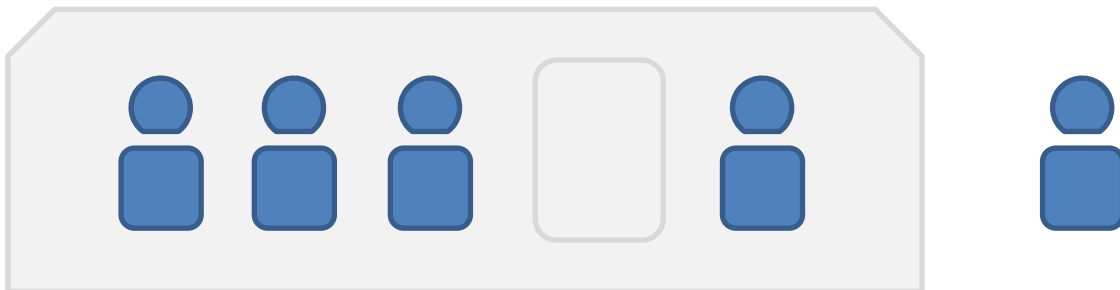
Figure 2. Visualization: Optional remote work (Source: Own figure)

Some employees work outside the regular office some of the time. Usually, companies allow their employees to work a limited number of days per week or per month remotely. In this setup, it is common for companies to provide a portable computing device, like a notebook, with a safe remote connection into the company's office network. This gives employees access to files and applications that they need in order to be productive. Since all employees will still see each other regularly in person and most likely also work during the same hours, even when working remotely, this setup might still work without substantial changes to a company's processes.

2.2.3 **Partially distributed: Some full-time remote workers**
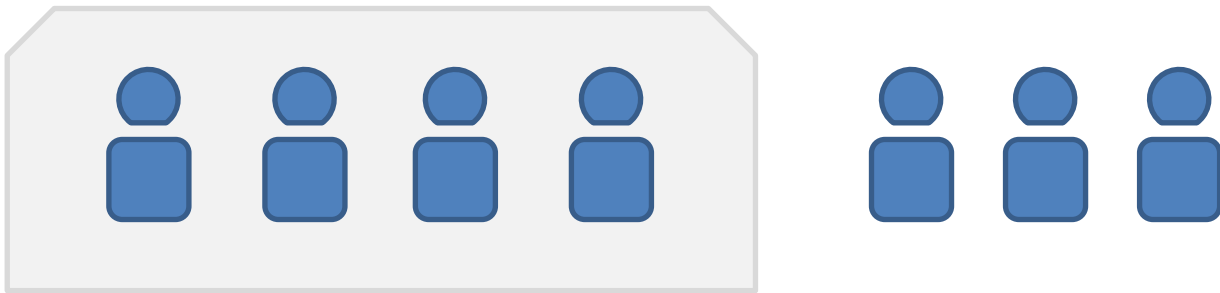
Figure 3. Visualization: Some full-time remote workers (Source: Own figure)

In this setting, most of the employees work in a co-located space while one or more team members, as well as freelancers, work completely off-site—meaning either at home, a co-working space or just anywhere else outside the company's office. This is also where remote work starts to need special attention from managers regarding collaboration processes: Do the remote workers share the same working hours? What if there are time zone differences? Are the remote workers provided with the same equipment as the people who work in the office or are they allowed to use their own equipment? All of this needs to be defined; processes and communication guidelines need to be revised and adapted to the remote workers.

2.2.4 **Satellite teams**
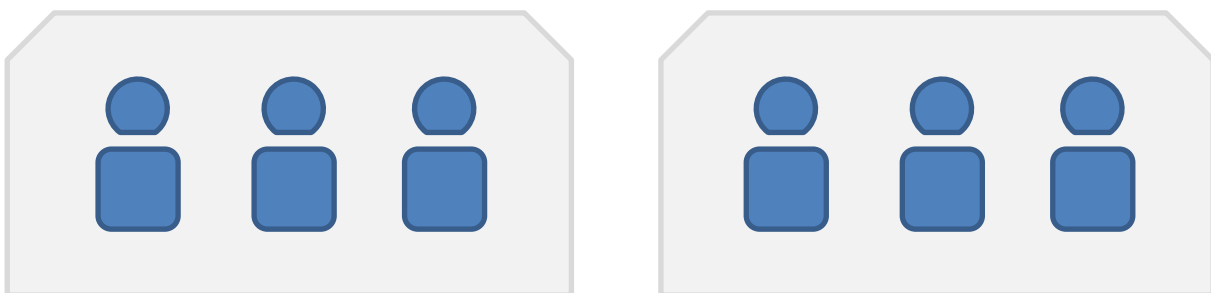
Figure 4. Visualization: Satellite teams (Source: Own figure)

In a satellite team setup, at least two teams that are geographically separated work on interdependent tasks. Oftentimes, this can be a department located in another city or country, e.g. a development, marketing or sales team. Complexity of managing such teams depends largely on how intertwined the tasks of these teams are and how close they are with regard to their time zones: The further they are apart, and the more intertwined, the more complex it gets.

2.2.5 Fully distributed teams and remote first companies
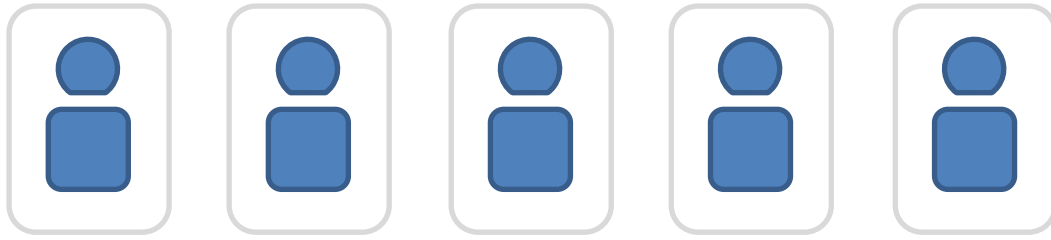
Figure 5. Visualization: Fully distributed teams and remote first companies (Source: Own figure)

A fully distributed team or remote first company is built from the ground up with remote work as the foundation of how work is to be conducted. This means that there are no company headquarters—except, for example, for the legal necessity to have an address to receive mail—and all the company's employees are all located in different places and work from wherever they prefer their personal office to be.

2.2.6 A mixture of the above
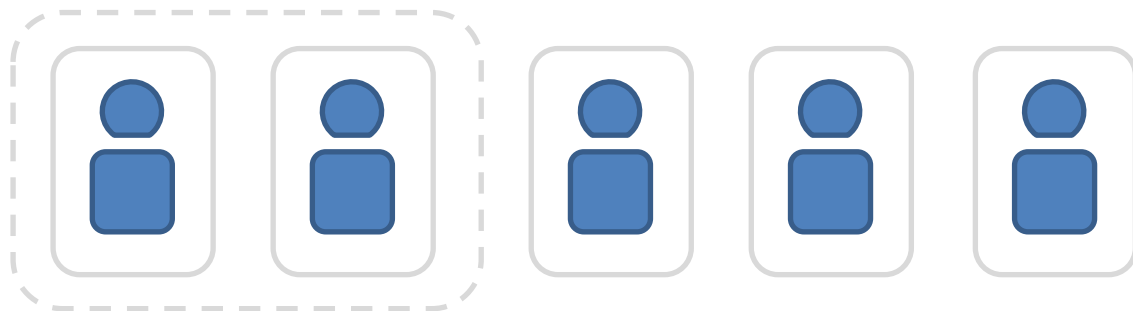
Figure 6. Visualization: Fully distributed teams with partial co-working (Source: Own figure)

Additionally to the previous setups, a multitude of mixtures is possible: For example, two team members of a fully distributed team could live in the same city and might choose to work together in a co-working space from time to time. The same situation is possible for a partially distributed company. Therefore, even though it is helpful to distinguish different forms of remote work setups, it is important to keep in mind that the distinctions are fluid rather than fixed. However, the distinctions are still helpful because each setup comes with its unique challenges and benefits from a manager's point of view. In general, as soon as one employee isn't located in the same space as the rest of the team, n-1, it's a remote setup—which setup exactly is then determined by the additional aspects mentioned on the previous pages.

3 Remote work and leadership: The current state of research and real world examples

In general, there is a large number of scientific papers and specialist literature on the subject of remote work. While this often involves the general effects and implementations of remote work (Allen, Golden, & Shockley, 2015), the impact on the productivity of employees (Neirotti, Paolucci, & Raguseo, 2012) or the overall employee satisfaction (Suh & Lee, 2017), scientific papers which specifically discuss the leadership challenges from a practical point of view and offer recommendations on what actions can or should be taken to overcome said challenges are few and far between.

As things stand at present, this can be regarded as a research gap, which this master thesis is intended to build on. Especially considering leadership best practices and what an ever changing work force expects from leaders is changing at a rapid pace, continuous research should be conducted to re-validate previously conducted studies and findings from research papers.

However, even in the unlikely event that research in this specific are has already been conducted, it might still prove to be valuable to update said perspective with the current state of the industry. As Generation Y and Z are entering the workforce, they bring with them a new set of values and behavior patterns that managers have to adapt their leadership methods to in order to stay effective.

All in all, the fact that a broad range of literature and research surrounding remote work and leadership practices in general is readily available will have a positive impact on creating the context for this paper's research questions. In a best case scenario, this would allow to compare the current state of remote work with the past and to identify patterns that potentially provide insights into the future of remote work.

3.1 Historical overview

In the United States, the term telecommuting first started gaining traction in the 1970s and was coined by Jack Nilles, the so called "father of the telecommuting movement" (Avery & Zabel, 2001, p. 6). The reason why the concept of employees working from a place of their own

choosing and being productive outside the established office environment suddenly had gained public interest was related to the oil crisis: Telecommuting could alleviate the issue of limited resources, reducing energy consumption if workers no longer needed to commute daily by car to their employer's offices. In Europe, on the other hand, telecommuting—at the time more commonly referred to as teleworking—only started to gain traction in the mid-1980s to early 1990s. (cf. Avery & Zabel, 2001, p. 6)

The aspects related to the oil crisis raised the interest of the United States federal and state government in remote work and led to research funding that was supposed to validate the effectiveness and feasibility of telecommuting (cf. Allen, Golden, & Shockley, 2015, p. 41). The state funded research was favorable towards remote work. As the environmental impact of doing business became increasingly clear and into focus, governments worldwide started to adopt policies to limit this impact.

Subsequently, the 1990 Federal Clean Air Act in combination with new government standards for air-quality have motivated companies in the United States to introduce and offer some form of remote work option to their workers (cf. Avery & Zabel, 2001, p. 1). This ultimately led to 10.000 government employees to be working remotely in some form—both in home office and work from anywhere settings—by the late 1990s, as reported by Vice President Gore (cf. Avery & Zabel, 2001, p. 85).

Today, discussions about climate change and the environmental impacts of our economy are no longer a relatively isolated area of interest for researchers and the government but have reached the mainstream media and garner much attention. The conclusion that remote work can have an overall positive impact continues to be supported. Remote work can be identified as a way to reduce CO_2 emissions because less people need to drive to offices with their cars, reducing the number of vehicles on the road—including negative secondary effects like congestion (cf. Hofer, Jäger, & Füllsack, 2018, p. 9). Complementary:

> *Work from Home* implies mainstreaming flexible and remote work, thereby halving current commutes and reducing carbon and toxicity by 13% and 7%. If *Work from Home* becomes widespread, there is a risk of increased use of fuel and electricity at home. We estimate such possibility in *Work from Home ER* at mitigation potentials of only 9% carbon and 6% toxicity. Such rebound could be counteracted by energy efficient

housing or decentralized working spaces that workers can reach without motorized transport. (Vita, et al., 2019, p. 10)

Of course, modern electronic vehicles can also lessen the environmental impact of daily commutes (cf. Hofer, Jäger, & Füllsack, 2018, p. 9). Still, these vehicles need to be manufactured which requires large quantities of minerals and energy. Thus, even though the environmental impact is reduced by the usage of electronic vehicles or public transportation, eliminating the need for daily commutes entirely is still to be preferred from an ecological point of view, therefore favoring the concept of remote work.

In the 2000s, the number of employees working in some form of remote work setup outside the traditional office setting continued to rise rapidly. The Gartner Group had published a report analyzing the number of remote workers, stating that as of 2008, the number of corporate employees who work outside their company's office at least one day a week reached 41 million worldwide. When including employees who work remotely at least once a month, the number increases to 100 million. As was the case when remote work first gained popularity in the 1970s, most of the remote workers in 2008 were employees in the United States. This was reported in statistics by the United States Census Bureau which lists that as many as 15 percent of employees are taking advantage of remote work options at least once per week. (cf. Lautsch & Kossek, 2011, p. 10)

The U.S. federal government continued to be a driving force behind remote work. The 2010 Telework Enhancement Act (TEA), signed by President Obama on December 9, 2010, has led federal government agencies to utilize remote work as a tool to attract and retain a new generation of skilled employees and to motivate existing workers—and has resulted in a significant increase of remote workers within government agencies (cf. Kwon & Jeon, 2020, pp. 1-2).

The drastic boost of remote workers took place because the 2010 TEA has changed the status quo: It created a framework which defined how federal agencies should implement remote work. This framework was then used government-wide rather than having each agency define their own approach. It outlines a clear process how employees become remote workers—from seeking approval by their agency to getting a manager to evaluate the various support and performance factors necessary for a remote worker to be productive (cf. Kwon & Jeon, 2020,

p. 3). The prominent role of the United States federal government in the advancement of remote work also explains the many articles that focus on remote worker effectiveness and happiness in federal agencies that were studied during the creation of this master thesis.

By the 2010s, remote work has become a mainstream practice in countries like Germany, the United Kingdom and the United States, in which the share of managers who are working from, or at least allowed to work from home, is between 40% and 50%. Even in developing countries, the share of remote working managers reaches up to 20%, an unexpectedly high percentage. As previously outlined, one of the factors contributing to the share of remote work in developing countries is the inconvenience of traffic congestion in combination with advances in ICT. (cf. Bloom, Liang, Roberts, & Ying, 2015, p. 166)
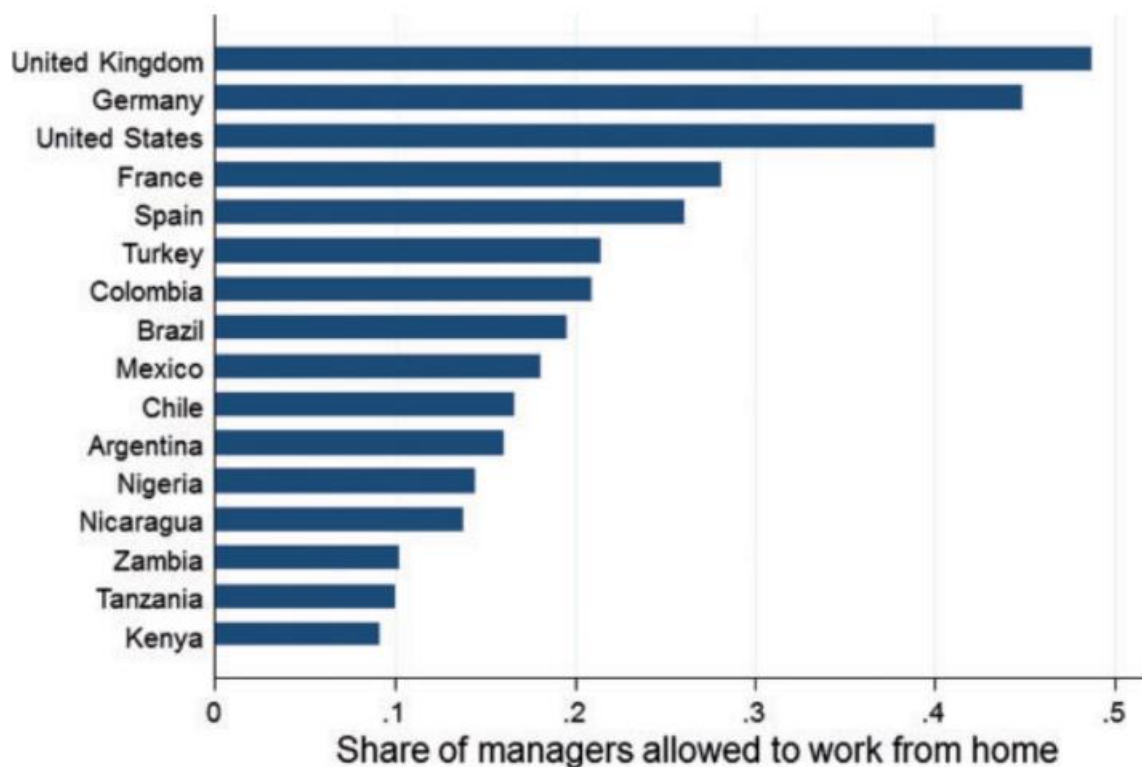
Figure 7. Share of managers allowed to work from home, by country in percent (Source: Bloom, Liang, Roberts, & Ying, 2015, p. 168)

> Data from telephone surveys of 3,210 firms randomly picked from the population of manufacturing firms with 50 to 5,000 employees (public and privately held firm) following the approach outlined in Bloom and van Reenen (2007) and Bloom et al. (2014). Plant managers were asked "Are managers allowed to work from home during normal working hours?" Country choice driven by research funding and firm population dataset availability. For more details see www.worldmanagementsurvey.com (Bloom, Liang, Roberts, & Ying, 2015, p. 168)

The percentage of managers who have the option to work from home is impressive, yet raises the question whether remote work might be limited to leadership positions with high pay—assuming that people in such senior roles are able to also work effectively on their own without supervision. However, a look at additional data from the United States shows that remote work nowadays can be found in a variety of paygrades and "span a wide spectrum of jobs, ranging from sales assistants and realtors to managers and software engineers" (Bloom, Liang, Roberts, & Ying, 2015, p. 166). Immediately striking about the data is the relative emphasis on the highest and lowest wage deciles—however, the curve resembles overall employment trends (cf. Bloom, Liang, Roberts, & Ying, 2015, pp. 166-167). Therefore, it is not a situation limited to remote work, but just matching the overall trend.
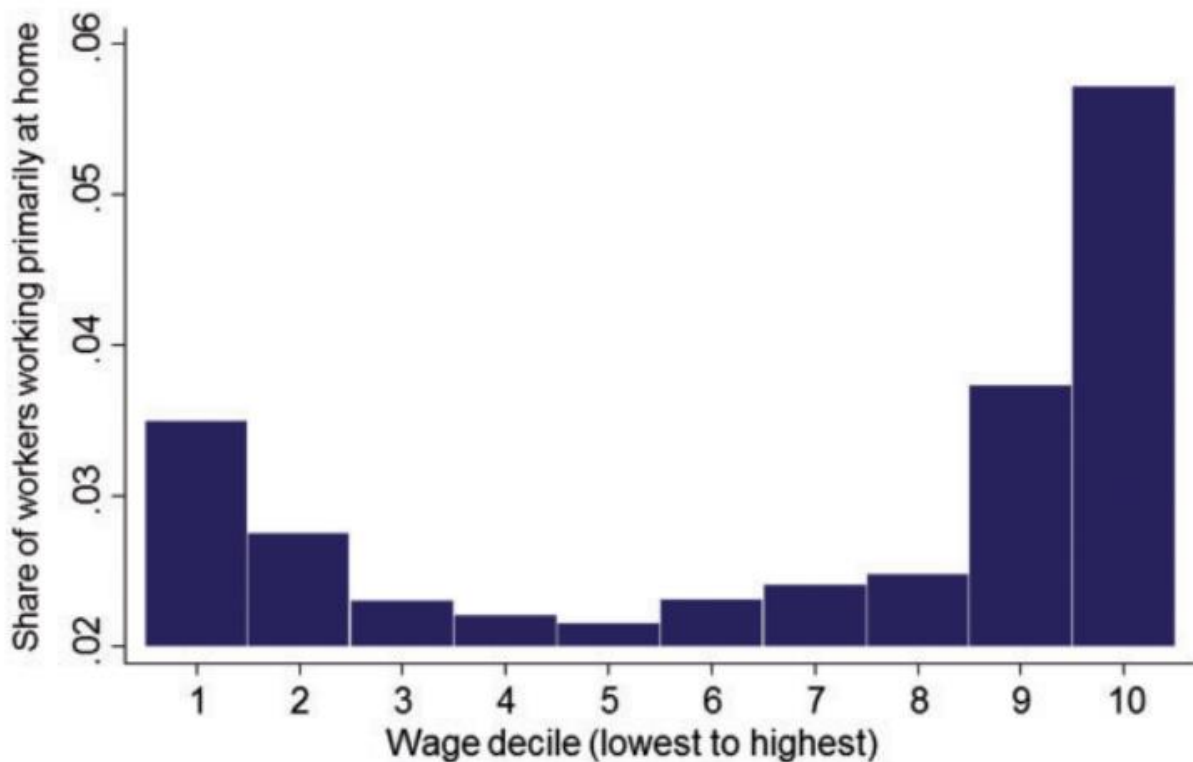
Figure 8. Share of workers working primarily from home, overview by wage decile (Source: Bloom, Liang, Roberts, & Ying, 2015, p. 167)

> The figure includes all workers of all ages with positive earnings and more than 20 hours of work per week on average during the last 12 months. Self-employed workers are excluded. We classify workers as working primarily from home if they answer "work from home" to the census question "How did you get to work last week?" Employees are divided into 10 deciles by annual wage. Share of workers working at home is calculated within each wage decile. (Taken from the 2010 American Community Survey sample from IPUMS.) (Bloom, Liang, Roberts, & Ying, 2015, p. 167)

3.2 The effectiveness of remote work

Management practices are supposed to have a positive impact on a business. Be it increased revenue streams, improved work force productivity or lowering the costs of running a business. The same is, naturally, true for remote work. The implied advantages include all of the above: Since employees can escape the daily struggle of long commutes, their work-life-balance supposedly improves; access to a global pool of talent is expected to increase overall productivity within a company, since specialized experts can be hired. However, whether or not remote work actually manages to provide all of these benefits is yet to be proven, as no systematic evidence and consensus could be found. (cf. Bloom, Liang, Roberts, & Ying, 2015, p. 166).

In order to finally get some real-world data that grants insights into the effectiveness of remote work—or a potential lack thereof—, the aforementioned study approved by the Stanford University was conducted and published in 2015 by Bloom, Liang, Roberts, & Ying. For the paper, the researchers collaborated for nine months with a NASDAQ-listed travel agency based in China that employs over 16.000 people. And the findings were remarkable:

> Home working led to a 13% performance increase, of which 9% was from working more minutes per shift (fewer breaks and sick days) and 4% from more calls per minute (attributed to a quieter and more convenient working environment). (Bloom, Liang, Roberts, & Ying, 2015, p. 165)

Not only was there a significant performance increase, but the employees who worked from home were also more satisfied with their work and, consequently, their attrition rate declined by 50%. During the nine months of the study, call center employees were chosen, randomly, to work from home. However, after the study was concluded and has shown a drastic increase in performance, the travel agency started to roll out a companywide option for its employees to work from home—no longer randomly assigning employees to work from home or in the office, but giving them the choice to select what they prefer. The employees took up the offer: 50% chose to switch. Ultimately, this resulted in an overall performance increase of 22%—an additional 9% compared to when employees were randomly assigned. Interestingly, it was also reported that even though their performances were adequate, remote workers were less likely to get a promotion. (cf. Bloom, Liang, Roberts, & Ying, 2015, p. 165)

This study gives a promising glimpse into the potential of remote work. However, even though the results seem to be clear and the sample size of the employees that were included in the study was amply dimensioned, it would be premature to conclude that remote work is generally viable and effective. For example, what happens in more creative industries, in which workers need to collaborate more closely with one another? After all, call center employees, on which the study was focused on, may have processes that are overly compatible with remote work. On the other hand, what really stands out is the reported improvement regarding work satisfaction. After all, a 50% attrition rate is remarkable—and if it is any indication regarding the general positive impact remote work can have on company staff, it could be considered game changing.

However, even though the positive effect on productivity levels was clear, the fact that remote workers were less likely to be promoted is worrisome. A myriad of reasons might be behind this: The reduced contact between an employee and their manager might be to blame, meaning that the interpersonal bond potentially plays a role in promotions; perhaps this is also a general prejudice against remote work—after all, the public stigma that remote workers aren't productive is still prevalent in many social circles.

This challenge of interpreting studies conducted on remote work effectiveness was also encountered regarding the extent and frequency with which remote workers are allowed to work from outside the office (cf. Allen, Golden, & Shockley, 2015, p. 45). Specifically, the researchers in this paper were also looking at the impact remote work has on job satisfaction. It was identified that job satisfaction depends not only on the frequency, but also on the personality traits of the employees: If one has a strong need for autonomy and tends to prefer ordered systems, the positive effect remote work has on job satisfaction is greater than for people who reported that they don't consider order and autonomy to be very important (cf. Allen, Golden, & Shockley, 2015, pp. 47-48).

Allen, Golden & Shockley (cf. 2015, pp. 49-50) also interpreted the findings from multiple studies conducted on remote work regarding individual performance and firm-level performance. When it comes to individual performance, conflicting results are mentioned: When measuring remote work job performance objectively or asking supervisors to rate their remote workers, a higher rating compared to co-located workers can be found—yet this is not the case when remote workers rate their own performance. Which is a rather peculiar finding, since self-reports are, in general, more positive than other-reports. Research results showed

more consistency for firm level metrics: Even though they didn't receive as much empirical attention, the evidence points in general to a positive effect on innovation, financial and relational performance of a company—yet these findings were reported by the respective CEOs. Furthermore, it is emphasized "that most telecommuting research has used non-experimental study designs, precluding inferences of causality" (Allen, Golden, & Shockley, 2015, p. 50). On the same page it is also noted that, to the knowledge of the authors of said paper, no more than two studies could be identified to have been conducted with a true experimental methodology—both of which were still unpublished at the time of the writing and one of them being the previously mentioned study by Bloom, Liang, Roberts, & Ying (2015), which was published in the meantime.

Four years later, at the time of writing this master thesis, this still seems to be the state of research. No additional peer reviewed papers or technical literature could be identified that examined remote work effectiveness in the field with an experimental methodology. In conclusion, the existing research has given a first indication that remote work could potentially have a positive impact on job performance and therefore be deemed effective—provided that a few aspects are tailored to it, such as the sector a company operates in, as well as a suitable personality profile of the employees and their respective area of responsibility. Further research needs to be conducted in order to define with certainty whether or not remote work has a positive impact overall and in which scenarios.

3.3 Leadership challenges in a remote work context

Since remote work is a new approach to collaboration, it not only comes with advantages but also with disadvantages and new, distinct challenges for leadership personnel. The impact of these unique challenges on leadership performance raises several questions. For example, what kind of impact does the physical distance between remote workers have on communication effectiveness (cf. Neufeld, Wan, & Fang, 2008, p. 229)?

Remote leaders might find it more difficult to communicate effectively with their team because of the need to rely on technology in order to do so, taking away many of the interpersonal nuances that managers of co-located teams have grown accustomed to (cf. Neufeld, Wan, & Fang, 2008, p. 232). Therefore, while email, instant messaging, shared online documents and

video call tools are a means to replace communication in person, these tools cannot replicate the experience fully. In order to explore the impact this has on perceived leadership effectiveness, research was conducted with 44 executive MBA alumni who attended a business school in Canada and with their 181 combined employees (cf. Neufeld, Wan, & Fang, 2008, p. 233).

The researchers were surprised to find that physical distance did not negatively impact either leader performance or communication effectiveness. It was concluded that both managers and employees might adapt to the challenges that the distance entails by communicating in high frequency, both in real-time and asynchronously. Over time, the whole team will develop a sense of familiarity with managerial norms and the company's culture, which helps them to adjust their behavior in order to deliver the same results. However, it was speculated that a common relational familiarity might have had an impact on the results. Still, this is a first indication that remote work, although it provides additional challenges, might not negatively impact communication and leadership effectiveness. (cf. Neufeld, Wan, & Fang, 2008, pp. 240-241)

3.4 **Practical examples of fully distributed companies**

Most people in today's workforce are aware of remote work in a setting in which it is optional to work from home. Such setups are a first step towards adding remote work to a traditional co-located setup. In these scenarios, many companies offer a limited amount of remote work days on a weekly basis for their employees—making this a common way of approaching work (cf. Caillier, 2016, pp. 395-396).

However, companies that are built from the ground up around the concept of remote work and employ a fully distributed workforce on a global scale are still quite uncommon and many leaders are even unaware that they exist and, thus, that the concept works. Additionally, some of these fully distributed companies have seen rapid growth in both revenue and the numbers of employees over the past years. Invision, a company that develops digital product design tools, is one of such examples: Founded in 2011, it has grown to $1.9 billion evaluation within eight years and generates an estimated yearly revenue in excess of $100 million (cf. Crook,

2018). The rapid growth and success of these fully distributed remote companies is a further indicator regarding the effectiveness of remote work.

In order to highlight not only the theoretical aspects of remote work in this chapter but also its viability in the workplace today, three companies that managed to build thriving businesses with remote work as their foundation were chosen as proof of concept. After all, one of the most prevalent clichés with regard to remote work is the assumption that employees only want to work from home because they would then have to deliver less output—since no manager can check on them and see whether they are currently working or just surfing on the internet. However, quite the opposite seems to be the case: When employees who are interested in working from home are given the option to do so, their performance increases (Bloom, Liang, Roberts, & Ying, 2015). The three selected companies reinforce this statement:

1. Automattic
2. Basecamp
3. Invision

A note regarding the figures on the following pages: The companies presented on the next three pages have been through various fundraising stages but are all still privately held. This means that no reliable public records with detailed financial and operational details could be obtained. The data presented is therefore based on estimates retrieved from publicly available sources, e.g. interviews with the CEOs, articles on the company's website, books published by their founders, and job advertisements. However, the purpose of these numbers is not to give a painstakingly accurate picture of the companies' financial situation, but rather to give an idea of the scale at which remote first companies are able to operate. For this purpose, approximations are fully sufficient.

3.4.1 **Automattic**

Founded	**2005** (cf. *https://www.owler.com* 2020)
Number of employees	**1165** (cf. *https://automattic.com* 2020)
Revenue	**>$100M** (cf. *https://www.owler.com* 2020)
Valuation	**>$3B** (cf. Sawers, 2019)
Headquarters	**San Francisco** (cf. *https://www.owler.com* 2020)
Type of product	**WordPress, publishing platforms**

Table 2. Automattic company overview, estimates (Source: Own figure)

Automattic is best known for its online publishing and blogging platform WordPress with the goal to democratize publishing, allowing anyone to share their thoughts publicly. Automattic is a distributed company with an emphasis on diversity and inclusion, employing 1,165 remote workers in 74 countries worldwide. Considering the challenges oftentimes associated with cultural diversity and language barriers, the fact that Automattic's workers speak a total of 93 languages is astonishing. (cf. *https://automattic.com* 2020)

Comparing the monthly unique users of properties from Automattic to the leading technology companies located in Silicon Valley, an impressive difference between them can be found: With less employees, Automattic manages to have comparably high user numbers, which are an important indicator for success for online businesses. Could this be a pointer towards the effectiveness of remote work?

Table 3. Visitors to employees ratio (Source: *https://automattic.com* 2020)

3.4.2 **Basecamp**

Founded	**1999** (cf. *https://www.owler.com* 2020b)
Number of employees	**63** (cf. *https://www.owler.com* 2020b)
Revenue	**~$25M** (cf. *https://www.owler.com* 2020b)
Valuation	**Undisclosed** (cf. Fried, 2015)
Headquarters	**Chicago** (cf. *https://www.owler.com* 2020b)
Type of product	**Project management tools**

Table 4. Basecamp company overview, estimates (Source: Own figure)

Figure 9. Book cover, Remote: Office Not Required
(Source: *https://basecamp.com* 2020)

The co-founders of Basecamp, Jason Fried and David Heinemeier Hansson, are strong and public proponents of remote work and fully distributed companies, who have published numerous articles and books on their approach to managing a distributed workforce (cf. Fried & Heinemeier Hansson, 2013). When hiring a Director of Operations in late 2019, Basecamp received 441 applications, despite setting a very high bar in the job posting (cf. Kent & Nicholson, 2019). This could be an indicator regarding the attractiveness of remote work jobs, showing the high demand for such positions. In a war for talent, remote work might prove to be a valuable asset.

3.4.3 Invision

Founded	**2011** (cf. *https://www.owler.com* 2020c)
Number of employees	**>1000** (cf. *https://www.owler.com* 2020c)
Revenue	**~$100M** (cf. Crook, 2018)
Valuation	**~$1.9B** (cf. Crook, 2018)
Headquarters	**New York** (cf. *https://www.owler.com* 2020c)
Type of product	**Digital product design platform**

Table 5. Invision company overview, estimates (Source: Own figure)

As a fully distributed company, Invision employs people all over the world. Focusing on a culture based around diversity and inclusion is one of its core priorities—and currently people in more than 20 countries are working for Invision. The company offers a digital product design platform and has seen dramatic growth since it was founded in 2011: Its product is used by over 5 million people and by 100% of the Fortune 100 companies. (cf. *https://invisionapp.com* 2020)

Invision's continuous growth is one of the most striking aspects about the company. Their most recent fundraising round was Series F, which Invision had closed at $115 million—at a $1.9 billion evaluation. This means that Invision managed to nearly double its valuation in the span of just one year; in 2017 the company raised $100 million in its Series E round. (cf. Crook, 2018)

In order for a company to grow at such a rate, it needs to hire new talent rapidly. This can be very challenging, especially for companies that are dependent on hiring local talent—or that need to convince people to commute or to move. Being fully distributed has most likely enabled Invision to access a worldwide pool of highly skilled workers, streamlining this process. Additionally, bottlenecks such as limited office space were also not a factor. This supports the hypothesis that remote work could be a facilitator for rapid growth.

3.5 **Current best practices: The missing link**

While there is at least a limited number of peer reviewed papers as well as technical literature available that discusses the effectiveness of remote work, this appears to not be the case for leadership methods. Neither in local or online libraries, nor in a vast database by DeepDyve with over 18 million articles from more than 15,000 peer reviewed journals was it possible to identify research papers that looked into the practical implementation of remote work. This represents a substantial research gap.

It is interesting to note that if the current research has not yet looked at implementation best practices and leadership challenges, its assessment of the effectiveness of remote work should also be questioned. Since working remotely requires a fundamentally different approach to collaboration, how can research be conducted without also addressing whether the managers have implemented the appropriate processes?

Consequently, the research questions of this paper will be mostly answered based on the insights gained by the expert interviews in chapter 5.

4 Research approach and methodology

The basis for writing this paper is the study of existing scientific and technical literature on the subject of remote work as well as a comprehensive analysis of its impact with regard to effective leadership methods. This comprehensive review of the current state of research and the current situation regarding the implementation and challenges of remote work in everyday corporate life in the previous chapters served not only to gain a thematic overview, but also to further identify a clear research gap and to narrow down the research questions.

The methodological orientation of the subsequent research is qualitative and is based on the study of multiple books on the matter (Flick, Kardorff, & Steinke, 2004; Meyen, Löblich, Pfaff-Rüdiger, & Riesmeyer, 2019; Yin, 2016). With managers who already have extensive experience with the topic, the conclusions from theoretical research are examined and compared to the current state of practice. The scope of this paper didn't allow for an additional quantitative survey to supplement the results of the expert interviews with the views of affected employees.

The research questions are then answered on the basis of the qualitative research in the form of semi-structure expert interviews and its resulting findings in combination with the literature work previously carried out. Subsequently, the results are placed in a broader context—e.g. social and cultural aspects or impacts of remote work—and an outlook on the future is given.

Since remote work is particularly attractive in the context of globalization, an effort was being made to open up an international perspective.

4.1 The choice of qualitative research

When it comes to leadership methods and people management, more often than not there are no universally applicable answers. As a leader, one has to be aware of a wide range of factors that all influence what action is appropriate—or ideally the best one—in a certain situation: Be it the employee's personality, socio-economic circumstances, team dynamics, local laws or company guidelines; the list is seemingly endless. In order for a leader to succeed, they need to have a nuanced understanding of all of these factor and need to adapt their leadership methods accordingly. Therefore, a quantitative research method was discarded as the main basis for this

paper: It would be very difficult, if not impossible, to gain valuable insights into the complex thought process of leaders this way.

Ultimately, this reasoning has led to the conclusion that qualitative research with expert interviews is an approach that best fits the intent of this paper. In order to answer the research questions, a detailed review of the reasons why a leader has chosen to act in a certain way is necessary. The review has to provide insight into the thought process that led to the leadership method of choice and the result of its implementation. This can be accomplished in expert interviews.

4.2 **Identifying the right interview partners**

Since the expert interviews are the basis on which the research questions will be answered, the quality and expertise of the interview partners is of utmost importance. These experts need to be experienced leaders with a track record of successfully managing remote workers. Ideally, the experts have many years of experience not only in managing remote workers, but also in setting up and growing teams, departments and even companies.

Due to the different implementations of remote work, the selection of the interview partners will directly impact the focus of this paper. However, even though a focus on fully distributed teams and companies was considered to be favorable, all areas of remote work offer a great potential for research. Therefore, if more qualified experts were to be found that specialize in partially distributed companies, the focus would have shifted accordingly.

4.3 **Overview of interview partners**

Interviewee	Current position	Remote work experience
Dr. Tobias Georgi	CCO, Lecturio	• More than 10 years • Multiple leadership positions • All remote work setups

Stefan Wiezorek	Product Director, Stepstone	• More than 10 years • Multiple leadership positions • All remote work setups
Sebastian Kuhnert	CEO, chess24	• More than 10 years • Multiple leadership positions • All remote work setups
Jennifer Frey	Senior Manager, Efficio	• More than 10 years • Multiple leadership positions • Satellite teams, partially distributed
Andreas Klinger	Head of Remote, AngelList VP of Engineering, Coinlist Investor, Remote First Capital	• More than 10 years • Multiple leadership positions • All remote work setups
Quisqueya Berenguer	Senior Account Manager, Artefact	• More than 10 years • Multiple leadership positions • All remote work setups
Philipp Güth	Divisional Chief of Staff, Deloitte	• More than 5 years • Multiple leadership positions • Satellite teams, partially distributed
Caspar Götz von Olenhusen	Head of Marketing & eCommerce, Lizza	• More than 2 years • Multiple leadership positions • Satellite teams, partially distributed

| Andrea Seeger | Senior Group Manager Global MarCom, CryoLife | • More than 1 year
• First leadership position
• Satellite teams |

Table 6. Overview of interview partners (Source: Own figure)

4.4 Conducting the interviews and analyzing the results

Before each interview took place, all interviewees were informed of the context and the purpose of the interviews. The option to anonymize the interviews was given, yet all experts agreed to be listed and cited by name in this paper. All interviews were conducted on a voluntary basis and no payment was agreed upon or made. The interviews were conducted on a one-on-one basis with online video conferencing software in a non-formal, conversational setting and recorded after getting consent from every interview partner. The interviews were conducted either in the English or German language. In case of the latter, the citations in this paper were translated from German to English by the author.

The interviews were then transcribed and analyzed by categorizing the answers. Sorted by category, these answers were then compared with one another, putting every answer given by an expert into context with the correlating answers from all other experts. The interpretation of this analysis forms the actionable advice and answers to the research questions of this paper.

4.5 Hypotheses in qualitative research: A matter of dispute

When it comes to qualitative research, the technical literature provides two particularly conflicting interpretations on hypotheses that are formed in advance of the research. While it is an undisputedly sound approach to form a hypothesis at the beginning of quantitative research—which then has to be either confirmed or rejected—the case is not clear for qualitative research. On the one hand, it is argued that hypotheses in advance need to be avoided by all means. Meaning both the researcher and the interviewees should not let their personal experiences influence their research. It goes so far as stating "that researchers free themselves voluntarily of all prior knowledge and even dispense with prior reading of theoretical and empirical studies in their subject area" (Flick, Kardorff, & Steinke, 2004, p. 154).

On the other hand, arguments are made that this approach leads not only to worse results, but that it is a flawed premise to begin with. Supposedly, no knowledge can exist or be created without context—resulting in the reasoning that even for empirical studies, it is a prerequisite to have contextual knowledge in order to create methods and measuring devices that support the researcher's intent (cf. Meyen, Löblich, Pfaff-Rüdiger, & Riesmeyer, 2019, pp. 26-27).

In general, the second approach was chosen for this paper, albeit with some restrictions that still adhered to the recommendations of Flick, Kardorff, & Steinke (2004). The field of fully distributed remote work currently still is rather small and some concepts still in stages where they could not yet be completely explored by all leaders. Therefore, this knowledge was partially shared by the researcher in some interview situations in order to probe for further thoughts and experiences. However, care has been taken in order to ensure that the interview participants were not influenced by positive or negative statements.

4.6 **Work packages**

In order to complete the master thesis on time and in accordance with all requirements, the workload was divided into self-contained work packages that build on each other. These work packages were developed and completed according to guidelines provided by the FHWien der WKW. A quality check at the end of each package in cooperation with the supervisor of the master thesis ensured continuously that the specified criteria of the FHWien der WKW were adhered to and that the overall quality of the master thesis was assured. The following table serves as a structured overview of the work packages.

Work package	Main content of the work package
Preparatory work and exposé	- Researching scientific approach - Reviewing FHWien der WKW master thesis guidelines - Literature review - Topic identification - Writing the exposé & submitting it

Literature work, and disposition	• Narrowing down the technical literature • Revising the research question(s) • Scope definition (e.g. restriction to certain industry sectors) • Writing the disposition & submitting it
Preparing and conducting empiric research	• Creation of interview forms on the basis of previous theoretical work • Conducting expert interviews • Evaluation of additional quantitative survey(s) • Beginning to analyze and to interpret the expert interviews
Evaluating interview findings and answering research question(s)	• Evaluating interviews/survey(s) • Comparison with literature work • Answering the research questions • Outlook & big picture context
Finishing touches and final submission	• Proofreading • Editing • Finalizing the formatting & layout • Submitting the paper

Table 7. Master thesis work packages overview (Source: Own figure)

5 Interview results: Learnings and recommendations

In order to answer the research questions, the challenges that managers of remote teams face today were split into three dimensions, each of which was then further examined and split into subgroups. Since the semi-structured expert interviews were based on a guideline that was written in advance, most of these subgroups were already predefined; however, an open mind was kept in order to allow for new topics to emerge out of the conversation with the experts that were being interviewed. The three main dimensions that defined the scope of this master thesis:

- Leadership
- Collaboration
- Recruiting

These dimensions were chosen because they offer a structured yet still holistic perspective on the challenges that leaders of remote work teams have to deal with on a daily basis. Depending on the interview partner, the focus was shifted to best suit their respective area of expertise and in order to allow for new subgroups to emerge out of the conversation. This explorative approach was chosen since leadership experiences can vary depending on the remote work setup that was predominantly experienced; working with satellite teams shifts the focus to different areas than working with a fully distributed team, as well as working exclusively with full-time employees or freelancers—or a mixture of both.

5.1 **Leadership**

Great leadership ability is a highly sought-after attribute and a topic that has been the focus of research for many decades—it's a complex skill that changes not only with the times but also varies depending on cultural backgrounds (cf. Beugelsdijk & Welzel, 2018). Employees from Asian countries might in general prefer a very clear hierarchical structure, while their European counterparts prefer a flatter hierarchy. Therefore, leading a co-located team is already a challenge in and of itself. This raises the question: How does one lead a remote team when leading a co-located one is already very demanding?

Following up to this question, the first important learning from the expert interviews was that the leadership role in a remote work setup is, by most interviewees, considered as even more important than in a co-located setting, meaning that the impact a leader has on their team's productivity—positive and negative—is also increased (cf. Klinger, 2019, 03:12). This already emphasizes the need for leaders of remote teams to be aware of the common obstacles of remote work and how to navigate them effectively.

However, an insightful observation was presented by Kuhnert (cf. 2019, 25:45), who mentions that remote work can also mask the seemingly more irrational evolutionary behavior traits within human beings—like marking one's territory and establishing hierarchical orders—that can be quite difficult for managers to deal with appropriately. This can therefore be identified as an area that poses an additional challenge in a co-located setup; it can be particularly demanding for inexperienced managers and does not have to be performed in this form by managers of a fully distributed remote team—although it is relevant for a remote setup with co-located satellite teams.

At the same time, there are also challenges that are unique to a manager of remote workers. Wiezorek (cf. 2019, 02:01), Frey (cf. 2019, 19:49) and Seeger (cf. 2019, 06:35) remark that in order to lead a team effectively, managers need both the ability to assert themselves and to gain the trust of their employees. Without being in the same office space and seeing each other on a daily basis, this can be far more challenging to achieve—especially for inexperienced leaders who are new to that role and still insecure, often leading to a need for external acknowledgement of their management abilities. These two aspects, trust and respect, usually go hand in hand and one requires the other.

Trust and respect also are vital components of what is considered great leadership in general: Today, a manager is no longer expected to be an authoritarian figure that rules by fear and micromanages every process within a company. Rather, a good manager needs to enable their team to work at peak performance and to help the individual to become successful. (cf. Wiezorek, 2019, 09:06)

This was also supported by Kuhnert (cf. 2019, 09:37) who mentioned the shift from micromanaging towards a more holistic approach and settings goals on a weekly rather than a daily basis.

Keeping these pointers in mind, it already becomes clear that a lot is asked of a leader of remote teams: They need to create the right context for success by inspiring their employees, by enabling teams to collaborate together effectively and by building strong personal relationships based on trust and transparency—and all of this with the additional challenge of being separated by potentially thousands of miles, different cultures and language barriers. Therefore, the results from discussing the leadership dimensions in more detail with the interviewees are the first to be presented.

5.1.1 Creating and upholding a company's culture

Even in a traditional co-located setup, creating a great company culture is already a challenge. When employees no longer share the same office space but are physically isolated from one another and possibly live in a variety of countries with distinct cultural differences, the challenge intensifies. According to Georgi (cf. 2019, 07:30), a common mistake is to underestimate how difficult it is for employees, especially new ones, to begin to identify with a company. He considers it crucial for managers to invest a considerable amount of time in personal one-on-one video calls in order to develop a personal bond. All interview partners agreed on the value of these one-on-one video calls (cf. Frey, 2019, 22:45; Güth, 2019, 28:26). This also entails the need for managers to think of themselves as service providers—it is important to be on hand quickly to answer initial questions from new employees and to proactively communicate the correct processes from the very beginning. This also includes actively monitoring the communication channels and, if necessary, to intervene swiftly. Managers should not underestimate how much time is needed to follow this advice.

After all, the employees of a company and specifically the way they behave on a daily basis define the culture of the organization. For example, if an employee makes a mistake, are they publicly blamed?—or do their managers step up and try and find out what the root cause for the error was, so that they can ensure that, moving forward, the chance for anyone else making the same mistake is lowered substantially? These situations define the company culture—and it depends largely on the managers to lead by example, since their behavior will encourage their staff to act in similar ways.

In order to discuss these topics, a common approach is to have regular all-hands video conferences (cf. Georgi, 2019, 19:04; Kuhnert, 2019, 12:35; Olenhusen, 2019, 33:14). These

meetings are helpful to establish a sense of unity. For example, new hires can be introduced to the existing staff which can be very helpful to make them feel welcome and like they are truly part of the team. Additionally, the management team gets the opportunity to address topics that are relevant for the entire company—presenting objectives and key results (OKRs), discussing the financial situation or introducing new investors—and they can ensure that all employees are up to date with internal structures and processes.

Olenhusen (cf. 2019, 32:47) and Georgi (cf. 2019, 21:36) both mentioned the importance of creating a positive team spirit and brand values that people can identify themselves with. These values need to be communicated in all official company channels: all-hands meetings, one-on-one calls, performance reviews and already during recruiting and onboarding processes. Additionally, they can be promoted in a creative way by sending individual packages to staff members—like t-shirts or posters displaying the company's core brand values. Thinking outside the box, especially in a remote setup, can help to engage employees in a unique way. These combined measures help to align the company's employees with its goals and vision.

Another point brought forward by several respondents was to engage remote workers in the real world, outside virtual communication and project management tools. Meeting each other in person is a powerful tool for managers of remote teams and therefore touched upon in the following chapter.

5.1.2 **Meeting in person**

While messaging tools, calls and video conferencing software are able to emulate in-person meetings between coworkers, they can't fully replace the interpersonal interactions that take place when people meet face-to-face in the same location.

All respondents explicitly emphasized the tremendous value of meeting with employees in person (cf. Frey, 2019, 11:20; Wiezorek, 2019, 43:37). While modern technology in the form of one-on-one videos and video conferencing can be used as an alternative to meetings in person, they cannot fully replace the experience. Not only can technology malfunctions like a bad internet connection or inferior hardware like low quality microphones and cameras negatively impact the overall experience, but the visual cues and subtleties that leaders are

accustomed to interpreting when having a conversation tend to get lost as well (cf. Berenguer, 2019, 32:00).

This was especially important for the interview partners with regard to hiring processes. While only two interview partners considered a meeting in person as a necessity, at least in their current work environment (cf. Frey, 2019, 42:43; Güth, 2019, 71:33), all agreed that meeting in person during the hiring process—at least before signing the contracts—should be considered beneficial (cf. Klinger, 2020, 28:42; Seeger, 2019, 02:08). Not only does this enable you to get a better understanding of the personality of your future employee, but it also helps to form an interpersonal bond that attaches the new hire more intricately to their new job. It's also a factor when candid discussions related to bad performances need to be addressed. These conversations are a balancing act for leaders, because they need to communicate clearly that expectations were not met, yet at the same time not demotivate their employees. Every additional information that helps to interpret the person you are talking to helps in these kinds of situations—meaning a meeting in person is preferable to a video call.

Additionally, meeting in person can be considered invaluable when it comes to teambuilding. All respondents agreed that meeting in person creates an interpersonal bond that is very hard or even impossible to establish by means of remote communication (cf. Güth, 2019, 04:42; Seeger, 2019, 06:00). When asked about how leaders can inspire remote teams to innovate and communicate a company's vision and mission, a common answer was that regular meetings in person are the best setting for it—even fully distributed remote teams should try and meet in person in regular intervals. For example, Frey (cf. 2019, 24:25) tries to schedule regular team events, if possible on a monthly basis. Klinger (cf. 2020, 28:17) also supports the notion that regular meetups in person are beneficial, suggesting that fully distributed remote teams try and meet at least once per quarter at first and then try and figure out what interval is needed to maintain a healthy culture and the feeling of being a team.

5.1.3 Setting rules

In a co-located setup, many rules are already implied by the work environment itself—and sometimes even dictated by law. For example, depending on the country, there are workplace safety regulations in place that define and shape the minimum requirements of an office environment. Once people start working from home, these rules might no longer apply—or,

depending on local regulations, a new set of laws regarding employee safety at home might have to be considered. However, the office environment not only defines the actual, physical space that people work in, but also dictates collaboration processes.

If a team works co-located, there are multiple rules, written and unwritten, that are taken for granted and apply in most companies. These include:

- Office hours: From when to when is it required to be in the office?
- Team locations: Where can each department be found?
- Equipment: What are the tools that everyone works with?

When working remotely, these rules are no longer naturally implied. Suddenly, working from nine to five might mean different things for different employees—because they don't share the same time zone. Additionally, if not standardized and issued by the company, your employees might be using different software and run into compatibility issues, which negatively impact their ability to collaborate. All of these aspects need to be taken into consideration when working remotely, and there seems to be only one way to compensate: Clearly defined rules.

All interview partners stated the increased necessity to define rules and create guidelines when working remotely (cf. Güth, 2019, 02:22; Wiezorek, 2019, 15:01). While most of these rules are directly related to collaboration—and therefore can be found in chapter 5.2 in great detail—it is also sensible to think about rules in general from a leadership point of view. Specifically, how to create these rules and communicate them to the team in order for your employees to not only accept and follow them, but also to understand the necessity of these rules and their benefits. This shifts the perspective from an extrinsic to an intrinsic motivation: Employees should ideally want to follow those rules because of the positive impact they have on their work and the company culture.

In order to ensure said intrinsic motivation, Seeger presented the idea that rules should not only be thought of as a construct defined and declared by a manager, but as a living framework that is defined jointly by the whole team:

When she took over responsibility for remote workers in the form of a satellite team in the United States, she communicated with all team members that in order to boost collaboration efficiency and to bridge the gap between German and American cultures, that everyone should

pitch in ideas on how to establish new collaboration rules and guidelines. And it worked: The team members contributed to the process and submitted suggestions with regard to what rules they deemed necessary. In a joint meeting it was then decided together which rules everyone considered to be essential, and these were then determined as binding for all team members. By involving the whole team, she has not only enabled her team members to actively participate in the creation of the rules, but also given them motivation to abide by them—after all, the team members themselves were the ones who defined and suggested the rules in the first place. (cf. Seeger, 2019, 19:37)

It is important to note: The rules laid down are not to be understood as a static document. Instead, staff members are encouraged to question the rules and share their insights openly with the team if they think that some of them are no longer effective or necessary—or that new, additional rules are needed. (cf. Seeger, 2019, 20:21)
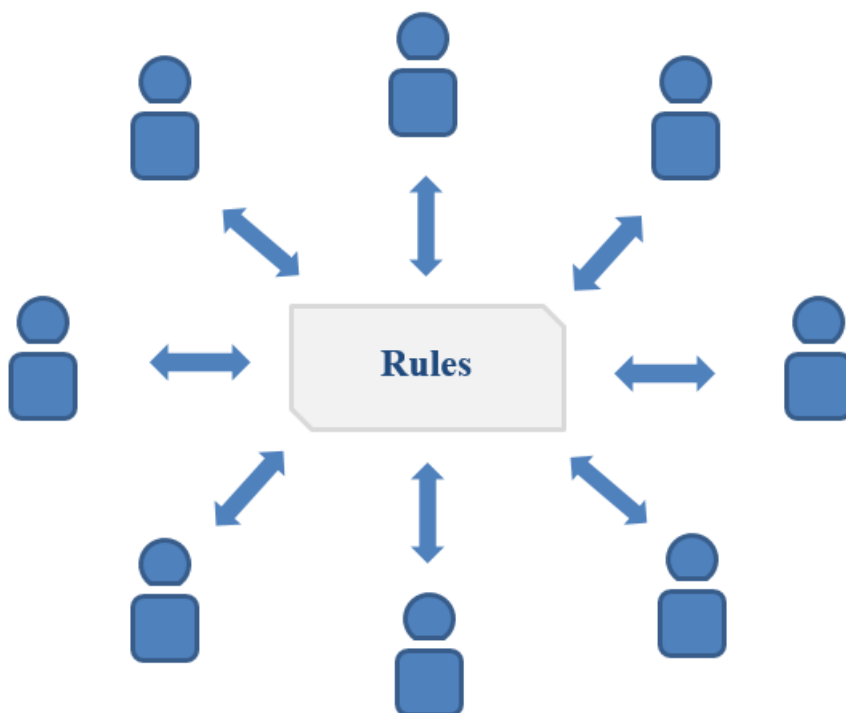

Figure 10. Jointly defined rules, rather than a top-down approach (Source: Own figure)

In a remote work setup, this approach to setting rules seems especially valuable: Rather than placing the burden of defining the rules solely on the manager—for whom it is difficult or even impossible to factor in the multitude of cultural and social differences within the team—the

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whole team can help shape the rules. Therefore, collaboration obstacles that the manager would not have thought of, like different communication styles that would have negatively affected the team in the long run, can be addressed early on.

5.1.4 **Performance reviews**

In the classical sense, performance reviews are a conversation between an employee and their direct manager. In this context, all interview partners agree that a personal one-on-one conversation, either in person or via video call, is the best approach—making no further distinction between a remote and a co-located team (cf. Wiezorek, 2019, 10:12). This means that the definition of what a good performance review is, is interchangeable between co-located and remote setups and needs most likely no further adaption.

However, it might be interesting to consider both the frequency of performance reviews and their potential as a coaching and employee development tool in remote work setups—especially due to the distance between managers and their team members compared to a co-located setup. After all, said distance between the managers and the employees can potentially be alienating and a challenge regarding expectation management. A higher frequency of one-on-one performance reviews and coaching calls can counteract the feeling of isolation and have a positive impact on the company culture. One way to approach this is to have a fixed interval of performance reviews and give employees the option to actively ask for additional one-on-one calls according to their own needs and preferences (cf. Frey, 2019, 24:10).

Klinger (cf. 2020, 09:44) adds another dimension to this, namely the assessment of the team members among themselves. This approach enables employees to define—independently of the manager—who the outlier performers are and allows them to also address issues they perceive as problems which have not yet been addressed. A slightly modified version of this can often be found in agile engineering teams, and it has proven to be quite effective. Kuhnert (cf. 2019, 31:16) mentioned a similar approach called 360-degree feedback, enabling all team members to share their feedback and thus broadening the perspective of the manager regarding an individual's performance.

All in all, few adaptions seem to be necessary for performance reviews in a remote work setup. Therefore, common best practices apply.

5.1.5 **Feedback loops**

A healthy feedback loop was mentioned to be very important both for team motivation and in order to strengthen a team's autonomy (cf. Berenguer, 2019, 11:28). At first, this statement might sound counterintuitive. However, it was found out that if a team does not receive continuous feedback on their results and the way the completion of tasks was approached, the amount of future guidance needed in order to get the results that a leader expects rises. The team will simply lack a cohesive understanding of what is expected and how to approach their tasks. If, on the other hand, a feedback loop is constructed that always lets a team know if they are headed in the right direction, they will gain more confidence and require less guidance overall. Therefore, if feedback is given in regular intervals, it will save time and ensure a better team performance.

Kuhnert (cf. 2019, 18:58) also mentioned the value of regular meetings in order to update the team on the trajectory of the company. He introduced a weekly all-hands video conference in which all remote workers participate. This meeting discusses a high-level objective. For example, an overarching quarterly target. You can then break down this target into smaller activities and key performance indicators (KPIs) and review them with the respective teams or departments.

In general, Georgi (cf. 2019, 05:39) mentioned the need for tight feedback loops if you need specialized employees for specific tasks. It is unlikely to find a natural fit for specialized roles who automatically performs exactly as expected; employee development is a necessity in such cases and to be performed by their direct managers—which is especially true for new hires. Consequently, checking in regularly with employees and giving feedback on both their approach to work and their output is beneficial. Unfortunately, it is easy to forget that need in a remote setting.

5.2 **Collaboration**

As the complexity of products and services offered rises, it is essential for companies to promote teamwork. One-man shows are rarely feasible anymore. Therefore, setting the right context in which remote workers can collaborate with their team members and also different departments

or satellite teams with the least amount of friction possible is an important task for leaders. Nowadays, it might even be considered their most important task.

While this realization is not new and managers have been aware of the need to promote teamwork within an organization for several decades, remote work requires to reevaluate what effective collaboration looks like when team members are no longer sitting next to each other.

During the interviews, two areas have surfaced to be especially important:

1. Identifying and defining the right processes
2. Establishing a culture with clear and transparent communication habits

A shift from a co-located workspace means that communication channels change drastically: No longer can employees have a quick chat or see if everyone is currently available to have a meeting within the next hour. These familiar ways of collaborating suddenly require new processes, and communication needs to happen exclusively with the help of software tools or online platforms. This requires special attention from managers of remote teams: They need to define the new context of work, a context that promotes communication and collaboration despite the distance—maybe even find a way to turn this obstacle into an asset with innovative project management strategies. And it all starts with identifying and defining the right processes.

5.2.1 Defining processes

According to Klinger (cf. 2020, 01:42), a remote leader needs to actively think about processes and take them very seriously, because in remote teams, almost every problem is the result of bad or missing processes. If a remote worker doesn't deliver the expected results, usually a lackluster process is to blame. For example, a task or its expected outcome might not have been communicated clearly enough. Consequently, even if your employees don't have the necessary skillset to deliver on their assigned projects, processes are to be blamed—because in this case, a company had previously established wrong hiring practices. Ultimately, in order to lead a successful remote team, it is vital to think about and have a clear grasp on processes; even more so than in a co-located setup.

Processes are necessary to define courses of action in a generally valid way. Even if they are very simple sequences—processes do not have to be complex, but simply standardize the approach within a company. Managers need to keep in mind, that this is an ongoing task: Since a company's circumstances are constantly changing, it is also necessary to constantly adapt and update your processes to your current needs in order to keep up with ever changing demands. (cf. Klinger, 2020, 06:22)

Additionally, processes should not only be defined top-down by the manager, but also by keeping an eye on implicit best practices during daily cooperation within the teams and departments. To facilitate this approach, a form of decision layering should be used to define which employees have the competency to define these emerging processes. In case a process has proven to be useful, it is then up to those employees to explicitly define these implicit rules and to create new standards to be universally adopted. (cf. Klinger, 2020, 06:46)

As already discussed in chapter 5.1, rules work better if they are not imposed top-down by the manager, but if the people who need to follow the rules have actually been involved in their creation. The same concept can be applied to processes: A remote worker who actually has to follow a specific process is likely to have insights into how to improve it—it would be a waste of resources not to consult them for their insights. Additionally, their motivation to then follow the processes increases as well.

5.2.2 Knowledge base

One easy mistake to make when working remotely, according to Georgi (cf. 2019, 04:07), is to communicate in a multitude of channels without giving it much thought or structure. Blindly relying on emails, text messages and video calls without putting much thought or structure into their usage can result in a lot of redundancies, confusion and additional work—because some topics are relevant for either multiple employees or multiple times within certain processes and should therefore be documented in a manner that is accessible for everyone, all the time. Hence, when it comes to written communication, it is important to always evaluate whether the topic is of interest to only the parties that are currently engaged in the conversation, or whether it is of general interest.

When writing universally accessible documents, a few key aspect should be considered:

- Focus on the core processes, don't elaborate any and all possible scenarios.
- Keep in mind that the document needs to be read and needs to be kept up-to-date. In order to facilitate both, the document should rarely be longer than one page.
- Ensure it is a living document.

It was emphasized that these centrally stored documents must always be kept up to date and need to be meticulously maintained, otherwise they will likely be rendered useless as time goes by (cf. Georgi, 2019, 04:44; Seeger, 2019, 20:21). This can be achieved by using online collaboration platforms such as Google Docs, allowing managers not only to share all relevant documents with their whole team but also to grant editing rights, so that the documents can be updated regularly by the whole team.

Especially when a remote team depends on asynchronous communication, the transparency a shared knowledge base provides is invaluable:

One of the worst case scenarios for a team's productivity is if one or more of its members are blocked. For example, if a developer wants to implement a new feature, but cannot find the detailed specifications because they were only discussed in private channels rather than stored in a manner accessible for the whole team, they are effectively blocked and cannot go ahead with the implementation. With asynchronous communication, this might result in several hours—or maybe even a day—of downtime for the developer if they don't have another task to shift their attention to.

5.2.3 **Tools**

The distance between employees hinders effective collaboration. This challenge can be overcome by using tools like video conferencing and project management software. It was unanimously agreed that these kinds of tools are an important factor in order to enable successful remote collaboration. (cf. Berenguer, 2019, 14:11; Kuhnert, 2019, 13:44; Wiezorek, 2019, 12:09)

Today, there is a multitude of tools available to support remote work in all kinds of ways. The sheer—and ever growing—number and variety of them can seem daunting. To get a better overview, these tools can be grouped into categories; and three categories stood out in the interview process as essential:

1. Written communication tools
2. Video calls and conferencing tools
3. Project management tools

An emphasis was placed on the fact that a tool alone, however, does not present a solution to a problem. As the name implies, it really should be considered merely as a tool—and it needs to be used appropriately in order to have a positive effect. This is accomplished by establishing the proper processes and guidelines regarding the usage of these tools. (cf. Klinger, 2020, 21:16)

The landscape of what tools are available changes constantly. Therefore, it is recommended to also challenge the status quo and regularly re-evaluate the tools that are being used and to introduce new tools. In order to facilitate regular evaluation of new tools, it is helpful to make a distinction between implicit and explicit tools. In this context, implicit tools are ones that emerge out of a need within a team, and the team autonomously uses and evaluates the tool's merit, but no companywide recommendation on the usage of the tool is being made. Explicit tools, on the other hand, are tools that are mandatory for all teams to use. This approach is important in order to not fall into the trap of sticking with existing tools just because they were once established, but to let the team discover new and better approaches and tools that help them accordingly. (cf. Klinger, 2020, 20:34)

However, a company should be careful that this does not result in a fragmentation between teams, meaning that each team uses its own set of tools, effectively preventing seamless inter-department collaboration. Once a team has been using a new tool consistently and expects it to be generally beneficial for all teams, it should be evaluated whether a companywide rollout is to be recommended and implemented. This is a balancing act between innovation and standardization. What follows is an overview of the three essential categories of tools.

*5.2.3.1 **Written communication***

The most basic form of communication and most widely used in all remote work setups is the written word. All interview partners depend on some form of written communication (cf. Frey, 2019, 23:46; Georgi, 2019, 08:54). This is done via email clients, instant messaging apps on desktop and mobile platforms, and within specialized project management tools for long-form writing and collaboration. Each of these tools excels at different things; choosing the right one depends on internal processes, the complexity of the message, and on the type of communication that is most appropriate for each message—asynchronous or real-time. An overview:

Tool	Message length	Communication type	Communication channel
Email	Medium to long	Asynchronous	Mainly private
Instant messaging e.g. Slack, WhatsApp	Short	Real-time	Mainly Private; open in group conversations
Project management e.g. Basecamp	Medium to long; Forum format	Asynchronous	Mainly Open
Cloud documents e.g. Google Docs	Medium to long	Asynchronous	Mainly Open

Table 8. Written communication tools (Source: Own figure)

One important aspect to keep in mind is that the line between these tools is blurry. Each tool could ultimately be used in a way that it was not intended for, e.g. you can email short messages back and forth in real-time, and communicate asynchronously with long-form instant messages

over Slack. However, each tool was built for a distinct purpose and works best if it is used accordingly. A defining question for the choice of a company's tools is the predominantly used style of communication: Do you want to communicate asynchronously or in real-time. A deeper look at the common advantages and disadvantages is given in chapter 5.2.5 "Communication guidelines".

In a remote setup, transparent, written communication in open channels is of high value (cf. Kuhnert, 2019, 11:21). Especially long-from writing enables employees to discuss complex topics in-depth. The asynchronous and thoughtful nature of long-form copy has several advantages:

- It helps establish a good feedback culture.
- It allows employees to share complex thoughts and topics with one another.
- Every employee gets access to the same information.
- Information can be retrieved and referred to easily.

On the other hand, short and private real-time messages should generally not be the default choice. If a team works remotely, yet the majority of the communication takes place in private conversations, it can prevent the team members to get access to vital information relevant to their task at hand. Having conversations out in the open also helps ensure that everyone—in case they want to—can get an idea of what other teams are working on and therefore they can get a better sense of the big picture.

It also helps the managers to get a feeling for the mood within a team—since they don't meet each other in the office on a daily basis, this is an important aspect. A lot can be inferred from the way that messages are written, as well as from the frequency with which team members communicate with one another. Once a manager becomes aware that an issue is forming, this type of open communication enables him to step in early and patch things up before things might start to escalate. (cf. Kuhnert, 2019, 11:21)

*5.2.3.2 **Video calls and conferencing tools***

Video calls and conferencing tools like Google Hangouts, Skype, Zoom and Cisco Webex are being used as vital communication tools by all interviewees. Video calls are even said to be of the highest value for distributed remote teams (cf. Olenhusen, 2019, 40:06; Klinger, 2020, 22:19**;** Wiezorek, 2019, 12:11). These tools help bridge the gap between messaging and meeting in person—and while all interviewees unanimously agreed that video conferencing and one-on-one calls cannot fully emulate meeting each other in person, they are the next best option (cf. Frey, 2019, 11:17).

An emphasis was placed on the importance of keeping the setup simple and accessible. Ideally, tools should be standardized. These standards should then be clearly communicated during the onboarding process, making sure that everyone is using the appropriate tool from the very first day they start collaborating. (cf. Georgi, 2019, 17:20; Olenhusen, 2019, 13:34)

Responses to questions regarding video conferences revealed that while valued by all interview partners, there are some distinct differences in how video conferences are thought to be best implemented for teams that are not fully distributed. In general, there were two positions amongst the interview partners:

1. Optimize the conference rooms (optimize for multiplayer)
2. Require all employees to dial in remotely (optimize for singleplayer)

The first idea is to make sure that if a remote worker dials into a meeting with team members who are working co-located, that their experience is emulated with technology to the closest possible approximation of what it would be like to be participating in the meeting in person. This means that the technology in the conference room needs to be optimized. Just placing a notebook on the table and using its built-in camera, microphone and speaker will result in a subpar experience for both the people in the conference room and the remote workers dialing in alike. Instead, it should be ensured that dedicated, specialized hardware is used. For example, a good setup would be if the remote workers are visible on a large screen or television with quality speakers and if the participants in the conference room are in return visible and audible to the remote workers through dedicated cameras and microphones. Additionally, it should also

be ensured that screen sharing is supported, so that everyone in the meeting is always aware of what is currently being discussed. (cf. Georgi, 2019, 25:22)

The second approach, on the other hand, highlights that no matter how much effort is being put into the setup to accommodate the remote worker dialing into the meeting, the people who are dialing into the conference room will always feel alienated to some degree. This can potentially put them in a situation in which they won't feel comfortable to actively participate in the meeting—or to a lesser degree than they normally would. Therefore, the second recommendation tries to level the playing field: If just one employee needs to dial into a meeting remotely, it is recommended that everyone should dial into the meeting individually as well. This helps to promote equal participation, because everyone faces the same limitations rather than placing the burden on just the remote workers who are dialing in. (cf. Wiezorek, 2019, 12:37)

When it comes to general observations regarding video conferences, Klinger (cf. 2020, 22:23) mentioned that they might disrupt normal social behavioral patterns. For example, there seems to be a tendency for participants to become overtly passive and disengaged in video conferences, compared to how they normally behave in larger meetings. One of the reasons is the feeling of relative isolation—oftentimes, everyone mutes their microphone, except for the ones who are currently actively engaged in a conversation or presenting. When asking the crowd in these situations if anyone has questions, in a co-located setup you will experience more participation compared to a video conference. However, an effort can be made to counter this effect by requesting that everyone has their microphone enabled at all times in order to encourage a more active behavior (cf. Klinger, 2020, 23:09).

Since video calls can also be recorded so that in case someone missed the call they can watch it later on and catch up, an additional question needs to asked: What impact does it have on the participants of a call when they know they are being recorded, does it alter their behavior? This question could not be explored with the interview partners—only once the interviews were already conducted did this question arise in the process of analyzing the collected data—but nonetheless the question should be explored by remote team managers, therefore it was chosen to also be included in this paper, even though, unfortunately, no further insights and recommendations can be given.

*5.2.3.3 **Project management tools***

A project management tool helps managers and team members to keep track of the projects they are working on—from the big picture down to the minute details of already accomplished and upcoming tasks. When collaborating remotely, project management software is especially helpful as a single source of truth, meaning that it becomes the central place in which tasks are created, assigned and their progress documented. It can help team members to structure their work and enables managers to be aware of what is being worked on, to give support when needed and to keep an overview of the overall workload of each team member and the progress towards finishing a project. Therefore, it is recommended that distributed teams make us of project management software (cf. Kuhnert, 2019, 13:44). With regard to choosing the proper tool, two observations were presented:

1. Different departments and teams may have different needs.
2. Adoption rates vary depending on the acceptance for the tool.

First of all, a manager should be aware of the needs of each department. Software developers may have vastly different needs than employees in the human resources department. This should be reflected in the project management software that each department uses. Secondly, project management tools are only valuable if the team uses them diligently. This is oftentimes only the case if the team actually likes using the tool and can clearly see the value it provides, e.g. streamlining processes and collaboration or simplifying project documentation. Consequently, a manager should consult the team in the discussion of what kind of project management software they should be using: This helps to make sure that the appropriate tool can be identified and that the team starts using it quickly and diligently. (cf. Berenguer, 2019, 14:11, 63:40)

5.2.4 **Overlap**

Does great collaboration require coworkers to work simultaneously and communicate in real-time, or can collaboration also be fruitful with an asynchronous work arrangement? In traditional work settings, there was no need to ask this question since all employees were simultaneously in the same office building—every day. With the rise of flexible work arrangements however, this topic gained relevance. For example, employees were no longer

expected to be in the office from nine to five, but only from eleven to three, reducing the time during which collaboration can take place. However, employees rarely need to collaborate all the time—it can even have a negative impact on their productivity levels: Constant interruptions and chatter prevent a state of deep mental focus on the task at hand. It is not uncommon to hear managers say that they like to work from home because it gives them the ability to work uninterrupted and really get large chunks of their to-do lists completed (cf. Wiezorek, 2019, 24:13).

Responses to the question of whether overlap time should be mandatory for remote teams were not consistent. While almost all interviewees do not require their employees to track their working hours, some are in favor of overlap time and consider it necessary to some degree (cf. Georgi, 2019, 34:23), yet others do not require it at all (cf. Frey, 2019, 33:49). It seems like the main differentiator between the interviewee were due to time zone differences. If the team works within the same—or comparable—time zones, overlap time is more likely to be established. On the other hand, when team member's time zones are further apart, e.g. if they live on different continents, overlap becomes more difficult and is sometimes even deemed almost impossible (cf. Frey, 2019, 32:49).

The multitude of answers and opinions seem to imply that whether or not overlap is required depends on several factors that might be unique to an industry or even unique to certain company cultures. Therefore, no recommendation or actionable advice can be given besides the encouragement to try out different approaches and to then determine which works best in a given scenario.

5.2.5 Communication guidelines

Communication is a key aspect of effective collaboration: Even when team members are located in the same office building, proper communication processes, techniques and tools are a vital part of effective team work. Once team members are no longer in the same office, these challenges intensify.

One of the most common mistakes is to not have clear, written communication guidelines (cf. Georgi, 2019, 03:47). Rather than communicating randomly over a multitude of channels, a manager should take the time to write a general guide by asking the question: What are the

general basic requirements that everyone needs to follow? This should result in a succinct document, no longer than one page, which can be easily attached to emails and shared with the team. The length of the document is important: If the information is not summarized well enough and the document is longer than one page, the employees will most likely stop reading it at some point. However, while this is a good rule of thumb, there is of course the need for some documentation to be longer than one page. Still, if it is information that needs to be referenced quickly, a concise document is recommended.

One of the big questions regarding communication guidelines is about synchronous and asynchronous communication. Synchronous means that two or more people are communicating in real time with one another—be it in person, in a video call, or via text messages. When communicating asynchronously, on the other hand, people are not directly engaging with one another in real time, e.g. an email is sent on Monday evening and answered on Tuesday morning. Cases were made for both styles:

Kuhnert (cf. 2019, 16:36), in general, prefers synchronous communication. One of the reasons is to minimize inefficiencies caused by misunderstandings, and the immediacy of the outcomes. In contrast to asynchronous communication, where employees might end up in a chain of arguments drawn out over long time intervals, communicating in real time makes it easier to come to an immediate understanding.

There seems to be an inherent danger associated with asynchronous communication to shift the responsibility from oneself to others, or at least to delay solving an issue. This happens because of the sheer time it takes to argue back and forth before an agreement can be made on how to move forward with an issue. Real time communication prevents this from happening—the feedback is instantly there. Consequently, a case could be made that the more senior a remote worker is, the better asynchronous communication will work—a great manager can function well without real time communication, whereas a junior employee might be totally lost without a responsive support system (cf. Kuhnert, 2019, 17:09; Berenguer, 2019, 09:34).

There were also other opinions: Asynchronous communication was identified as a great help for remote workers (cf. Wiezorek, 2019, 14:51). It can offer teams a great deal of flexibility. By not being expected to respond to messages immediately, employees can have longer sessions in which they can fully focus on their task at hand. If remote workers or teams are located in

different time zones, asynchronous communication might even be the only sensible approach. In order for this communication style to work, a great deal of clarity and transparency upfront regarding work tasks is required: Only if people are properly briefed upfront and are fully aware of the expected outcome while also having access to all the tools and documents required to complete their tasks, can they work effectively without the need for real time communication.

Another point brought forward by Kuhnert (cf. 2019, 11:21) was to communicate in open channels rather than in personal messages. This helps a manager to get a better understanding of how the team is currently collaborating. Depending on the wording of the messages, it is also possible to identify communication issue and frustrations within a team, enabling a manager to step in immediately and mediate between the team members before the situation escalates. The longer it takes to identify these areas of conflict, the more difficult it will be for a manager to solve them. Consequently, it might be advisable to define that open communication channels are to be preferred in general.

5.2.6 Cultural differences

Having to take cultural differences into consideration is not a topic that is exclusive to remote work. In our globalizing world, a homogenous workforce is no longer the norm, even in co-located teams. People from all over the world with a multitude of cultural backgrounds are suddenly working together in teams and collaborating—oftentimes lacking full awareness of the unique aspects of these different cultures and the impact they have on, for example, unwritten communication rules and habits.

When asked about the relevance of cultural differences, most respondents acknowledged that leaders need to be aware of these differences and adapt to them. Two particularly thought provoking statements and observations were made:

1. Cultural differences can be used as a scapegoat for bad leadership (cf. Berenguer, 2019, 19:50)
2. Even people in the same culture are vastly different to one another, so maybe the focus should be placed on individuals rather than broadly addressing and blaming different cultural backgrounds (cf. Olenhusen, 2019, 37:05)

5.2.6.1 Cultural differences as scapegoats for bad leadership

Berenguer described a situation in which a satellite team in India fell short of the performance expectations of the management team in London. When speaking to other managers, the poor performance was blamed on culture. However, after looking into this situation more closely and talking earnestly with the team in India, it became increasingly clear that the leadership in London wasn't giving the team in India the necessary attention and that the bad performance was the result of a lack of briefing and clarity in communication with the team. The team simply wasn't given enough information and feedback on their work approach in order to match the high expectations from London. (cf. Berenguer, 2019, 11:26)

Once this was identified as the root cause, Berenguer expanded upon the briefing and established feedback loops that helped the team in India understand what exactly is expected of them. In this case, the feedback simply consisted of weekly calls and immediate and detailed feedback on the work that the team delivered. This has led to an increase in performance to satisfactory levels and has positively impacted the Indian workers confidence in their own skills. (cf. Berenguer, 2019, 12:59)

This experiences shows that when working with a remote satellite team in another country, managers need to be wary about the impact of cultural differences. Sometimes, blaming difficulties on cultural differences is simply an easy way out—so before coming to this conclusion, one should diligently try and look for other root causes.

5.2.6.2 Focus on the individual rather than the culture

Olenhusen (cf. 2019, 37:05) has observed that even people within a common culture have different styles of communication—therefore, focusing on the individual and on language barriers first and foremost might be an additional way to approach the topic of potential cultural differences. For example, one might wonder why a message is written in a certain way: It might be worded in a way that can seem offensive or leave the impression that an employee is unhappy or unmotivated. Yet this can simply be the result of different communication styles and habits. Managers need to invest some time to get to know these kinds of communication types and get familiar with them before interpreting their messages. However, while individual

communications styles see a variance even within cultures, common communication traits among people with a similar cultural background can still be observed.

Klinger (cf. 2020, 17:49) supported the view that there is a tremendous bandwidth of communication styles among international workers—and with them comes the risk of cultural clashes. For example, residents of country a) might be unfamiliar with the communication style of residents of country b), interpreting their messages as fake and over the top. Additionally, there are cultures with a focus to "save face", withholding problems from their line managers because they would rather find solutions themselves than admitting a need for assistance—asking for help might in that context seem like admitting defeat (cf. Klinger, 2020, 18:43). These are cultural traits that, if managers aren't aware of them, can result in sub-par performances.

In the grand scheme of things, having a diverse set of cultural backgrounds can be regarded as an enrichment. However, a manager should be aware that there are differences in the way that these people communicate and accept this as a challenge to get familiar with the various communication types and adapt their own communication style accordingly. (cf. Olenhusen, 2019, 39:12)

5.3 **Recruiting**

A common theme in management books is the focus on hiring the right people (Welch & Welch, 2005). After all, a company can be said to be the sum of its people. These people are the defining factor of whether a project will be a success or a failure (cf. Zdonek, Podgórska, & Hysa, 2017, p. 213). Having the right employees can make or break a company. Remote work does not mitigate this factor—employees might be working from home, but they still are the essential building blocks of a company.

This was also an experience by Olenhusen (cf. 2019, 03:18), who had to build a marketing team from scratch after the realization that the previous employees were no longer an adequate fit for their roles. Coming to this conclusion was a tough process—after all, one important skillset of a leader is to coach people according to their needs in order to enable them to fully embrace the responsibilities of their roles and to perform accordingly. However, coming to the realization

that the current team composition is unable to deliver these results despite the best efforts of a leader to enable all of them to get there is a necessity as well—otherwise a department will never be able to perform at the highest, or in the worst case, even acceptable levels.

When hiring for a remote position, all of these traditional factors still play a major role (cf. Seeger, 2019, 57:45). However, within the established funnel structure, specific questions regarding the hiring process and remote work compatibility of the candidates should be addressed. For example: How could a leader further optimize the recruiting processes? Are there any special skills they should be looking for in their future employees, particularly related to the challenges of remote work?

5.3.1 Hiring process

A hiring process usually follows a very clear funnel structure, similar to this approach:

Hiring process step	Process examples
Defining the role	• Identify the need within your company • Define a clear set of responsibilities and requirements
Advertising the role	• Utilize job postings sites & your own social media channels • Hire headhunters
Review applications	• Often, human resources filters CVs in a first step • Managers decide which candidates they want to interview
Interview rounds	• Determine if an applicant fits a company's culture • Get a first overview of their abilities
Assessment rounds	• Get detailed insights into an applicant's skills • Find out if they are a fit for the team

Background and reference checks	• Confirm the applicant's given information • Get insights from past employers
Job offer and negotiations	• Make an offer to the candidate • Negotiate terms and salary
Hiring	• Prepare all paperwork • Initiate all necessary internal processes
Onboarding	• Prepare the team for their new co-worker • Introduce the new hire to all existing team members and get them up to speed on all internal processes

Table 9. Hiring process: Example of a funnel structure (Source: Own figure)

None of the interview partners have described alterations to this established funnel structure to be necessary in the context of remote work. Therefore, it might be safe to assume that the recruiting process itself does not differ from hiring employees for a co-located office setting or a fully distributed remote team.

5.3.2 Role definition and remote work compatibility

The first and most important step, because it is the basis for everything that follows, was identified to be the very start of the hiring process: The role that a leader is hiring for needs to be defined as clearly as possible. Even though, as just established, the hiring process itself does not seem to differ in a remote work setup, an emphasis on the importance of this first step was brought forward:

Similar to the previously mentioned feedback loop, if an employee isn't clearly aware of what is expected of them and what exactly their area of responsibility is, they are unable to fully live up their potential. Defining these roles as clearly as possible—in a best case scenario already before hiring an employee—will alleviate this issue. (cf. Olenhusen, 2019, 05:54)

Since some job applicants might not be familiar with working remotely, it seems like a sound approach to additionally emphasize the specific requirements for remote workers, like the need for excellent written communication skills.

However, an interesting perspective regarding this point was brought forward by Klinger (cf. 2020, 13:26): Qualities to look for in an employee do not differ whether you hire for a co-located or a remote position. At first, it might seem that you need to place an emphasis on communication skills for remote hires—but then again, would you hire someone in a co-located office if they lack good verbal and written communication skills?

5.3.3 Meeting in person—a necessity?

In a traditional hiring process, a face-to-face meeting in person happens naturally in either the interview or the assessment phase; even multiple face-to-face meetings as well as introductions in person to potential future co-workers can be incorporated into the process without much effort, since the interviews and assessment tasks often take place within the employers office building in which the applicant would be working in the future.

When asked whether a face-to-face meeting in person is also a necessity during the process of hiring remote workers, the interviewees did not agree on one standpoint. Some did not hesitate to hire remote workers without meeting in person in the past (cf. Klinger, 2020, 27:32), while others have expressed that they would be very hesitant to hire a new team member without meeting them in person prior and haven't done so yet (cf. Frey, 2019, 42:43; Güth, 2019, 71:33). An interesting note: In both cases when meeting in person was deemed to be a necessity, the interview partners worked in the consulting industry. An argument was made that because consultants need to spend a considerable amount of time with clients, it is vital to find out beforehand whether or not an applicant is a good cultural fit and able to represent the firm appropriately (cf. Güth, 2019, 70:40).

However, all interviewees stated that a meeting in person should always be regarded as beneficial (cf. Kuhnert, 2019, 35:42; Wiezorek, 2019, 43:37). Meeting in person can build trust between a manager and their future hires and also establishes a personal connection that helps identify the personality of your potential new hire as well as highlight cultural differences; these are all factors that can then be taken into account when deciding on how to best communicate

with one another, with whom of your current team members this new hire might collaborate most effectively and how to handle conflict situations like bad performances.

When deciding whether or not a meeting in person is required, both the cost of meeting in person and the position of the new hire should be taken into account. For example, when hiring someone for a senior manager position who will oversee a large team that is vital to a company's success, meeting in person would most likely be a sound investment (cf. Wiezorek, 2019, 43:10). If, on the other hand, the position you are trying to fill is not a multiplier, meaning it has an impact on various other parts of the business and its employees, the benefits of meeting in person might not offset the required investment.

5.3.4 **Onboarding**

Once a new employee is hired, onboarding is the next step. It is the process of incorporating the new employee into their work environment and to ensure that they become a productive team member as quickly as possible. After all, every company has its own way of approaching work, its own set of tools and its own rules and best practice guides on how to collaborate within the organization. Additionally, new hires need to familiarize themselves with internal processes and get to know their new co-workers as well as their line manager. Ideally, a company has prepared structured onboarding processes in order to streamline this process.

Traditionally, this involves on-site presentations—some of which are mandatory while others are optional, depending on the position of the new hire. Another common way of onboarding is for new hires to spend a few hours or days with separate teams with whom they will have to collaborate in the future. This was mentioned by the interviewees to be a sound approach when onboarding a remote worker (cf. Güth, 2019, 74:05; Klinger, 2019, 29:02). Depending on the budget, two options are possible:

1. Onboarding in person
2. Onboarding via video conferencing

There are a multitude of scenarios that need to be taken into account due to the different remote work setups that can be found. If a team is fully distributed and spread across the world, the money and time required to introduce the new hire to everyone, or at least to all the people they

will be working with, most likely are not worth it. However, even when a company has to deal with a limited budget it might be beneficial to ensure that key stakeholders meet each other and their team in person (cf. Kuhnert, 2019, 37:00).

On any rate, it is a necessity to determine who the key employees are, with whom the new hire will have to collaborate, and one-on-one video calls with all of them should be scheduled—for two reasons: First of all, a personal connection will be established through a virtual handshake. Once people have seen and talked with one another, a different rapport is established compared to communication via email and text messages only. Secondly, a thematic introduction into processes and responsibilities can be provided. The newly hired employee is supposed to receive a comprehensive overview of what each person is currently working on and how they will be collaborating in the future. (cf. Georgi, 2019, 27:57)

Ideally, onboarding shouldn't be a passive consumption of information for the new employee. Rather, they should be actively involved. This can be accomplished, for example, by sharing a screen remotely and demonstrating a set of tasks or processes, which the new employee is then asked to replicate afterwards in order to get real hands-on experience (cf. Frey, 2019, 16:04). Additionally, rather than scheduling a comprehensive onboarding plan in advance, a list of tasks could be given that need to be accomplished (cf. Georgi, 2019, 30:12). This idea was also supported by Klinger (cf. 2020, 16:10), who champions an approach in which a new hire is asked to make a contribution on day one of them starting their new job.

Finally, according to multiple respondents (cf. Georgi, 2019, 29:09; Klinger, 2020, 16:54) what is to be considered as great onboarding does not differ from a co-located to a remote work setting—only the time and effort you need invest in great remote onboarding is higher. The distance between the people is simply an additional obstacles that managers need to account for. Overall, this means that if a manger is familiar with onboarding best practices in a co-located company, they will most likely also perform well in a remote work setup. Especially if they account for the additional overhead due to the distance between them and the new hires.

6 Conclusion and outlook

6.1 Conclusion

The goal of this master thesis was to give a broad overview of remote work, its various setups and the specific leadership challenges attached to them—and practical advice on what methods and tools to implement in order to overcome these challenges. Looking at the results from the previous chapter, actionable advice that directly provides answers to the research questions of this paper were already given. Complementary, this chapter will provide a succinct overview of the most important aspects and findings.

6.1.1 Co-located or remote: Similar challenges

The first and most important learning was that the fundamental challenges that leaders had to deal with for several decades now largely remain the same. Great leadership is a skill in and of itself that can be considered as the foundation of great remote work leadership. Topics like hiring the right people, coaching the ones who are already there and leading by example remain essential leadership skills that need to be honed and mastered if one wishes to have a positive impact on a team.

However, a case can be made that remote work, in some areas, potentially intensifies these challenges. If a manager fails to implement proper communication channels and guidelines, workers who are co-located will naturally communicate with one another face-to-face, compensating for the lack of leadership. When the same things happens in scenario in which the team is fully distributed and collaborating remotely, things start to fall apart quickly. Thus increasing the burden that is placed upon leaderships personnel—because it seems that mistakes regarding internal processes tend to cause problems sooner and more intensely in a remote work setup.

6.1.2 Remote work cannot be an afterthought

Merely adding remote work to a company previously built around co-located processes without adapting these processes will likely result in chaos. Co-located companies oftentimes rely on

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spontaneous interaction between employees and synchronous communication. This won't work for a remote company—fully distributed teams may not work in the same time zones and work overlap in general is usually limited. Suddenly, there is an unexpected overhead on collaboration and on keeping everyone updated on what's going on within the company and within projects. The need for asynchronous communication, more refined processes (resulting in the need for clear communication guidelines and collaboration best-practices), and a central knowledgebase arises. This new context for effective collaboration needs to be created by the leadership personnel. Keeping in mind the experiences and recommendations shared by the interview partners in the previous chapter, two things become clear:

1. Nearly all leadership practices need to be subtly adapted in order to run a remote team successfully.
2. These changes aren't particularly complex—but they need to be taken seriously.

This is both good news and bad news for leaders. The bad news is: There is a lot to consider and to be aware of. Remote work requires both special attention and knowledge from a manager. If this is not recognized, it is likely that team collaboration will be ineffective.

The good news is: While specialized processes need to implemented, they are not overly complex. Familiarizing yourself with the recommended processes and current best practice insights on how to best create the appropriate context for remote teams to thrive is not a herculean task. Especially since remote work is currently gaining a lot of traction, specialized literature is starting to become readily available, remote work tools are getting better each day and remote work leaders seem to be eager to share their experiences.

6.1.3 The defining factor of a company remains its employees

Employees define what a company is capable of. This is a fact for co-located companies and it remains to be a fact for fully distributed remote companies. Therefore, the tried and true management mantra "hire the right people" applies as well. When things go wrong and yet all proper remote work processes and policies are in place, a leader might have to face the truth that there are no structural problems, but that they need a different skillset that is currently not present at the company. Coming to this conclusion is difficult and a leader should not do so lightly.

6.1.4 **Meeting in person is invaluable**

Humans are used to communicating with one another directly in person. An emphasis was placed on the high value regular meetings in person have in remote work setups. While the day-to-day business and collaboration can effectively take place over long distances, despite the limitations of communication via messaging, calls and video conferencing, having team members who work with one another meet in person in regular intervals is stressed as very beneficial. It allows team members to bond on a personal level, strengthening the team spirit and therefore the work ethics. It is also a valuable tool to bridge cultural gaps in international teams.

6.1.5 **Company culture**

When working remotely, upholding a sense of "we" can be quite the challenge. For some people, this is not a problem, they can cope with the relative isolation compared to working in a co-located space, seeing their colleagues on a daily basis. For others, this can become a real problem, since they are missing the connections with their co-workers and don't feel like they are truly an essential part of a team that's working together to solve a problem. This might result in a disconnect: They no longer see the meaning behind their work and have no sense of being part of a larger team and the company's vision.

Consequently, it is very important for mangers to ensure that a remote company still feels like a cohesive entity for its remote workers. Regular one-on-one calls should be scheduled to get feedback from remote workers if they're feeling good about their current workload and collaborating with the team. This helps to recognize discontentment at an early stage and to counteract immediately.

Additionally, as mentioned before, even a fully distributed team should try to arrange regular meet-ups so that employees get the chance to meet their colleagues in person. It was strongly emphasized that video calls can never fully replace real-world interactions and the interpersonal bonds that form when people meet each other in person. It also gives the management personnel the chance to communicate the company's vision and mission in an engaging way that gets people on board.

6.1.6 **Processes are vital and build trust**

More so than in a co-located setting, processes are the backbone of an effective remote team. It cannot be emphasized enough that a leader needs to ensure that effective processes are in place that help their staff to collaborate effectively. Particular attention should be directed to three points:

1. Written documentation
2. Clear communication guidelines
3. A centralized collaboration platform

6.1.7 **Few tools are needed, but those are essential**

What tools are needed in order to compensate for not working together in the same co-located office space? This sounds like a reasonable first question for managers; and one might tend to think that in order to bridge the distance between remote workers, a wide variety of tools is needed. Counterintuitively, it seems like the opposite is the case: If information and communication is spread across too many channels, it will lead to confusion.

In order to keep transparency high and to make sure that every staff member has access to all the information they need, clear communication channels need to be established as well as clear communication guidelines, and a clear set of tools; and since the market of tools to support remote workers is ever growing and can be confusing, it helps to sort these tools into three categories:

1. Written communication
2. Audio and video communication
3. Project management

From each category, one tool needs to be chosen. For example, it doesn't matter which platform a company uses for video calls—but it clearly needs to establish the one that they want all staff members to use. Otherwise fragmentation would set in: If employees start to implement a variety of tools from the same category, they will not be able to seamlessly communicate with one another.

6.2 **Limitations of the present research**

The goal of this master thesis was to give current and future remote leaders a toolset that directly supports their daily business—resulting in guidelines that provide actionable advice on a variety of aspects rather than giving just a theoretical background on remote work. However, considering the multitude of aspects that had to be covered in this paper, each topic could not be explored as in-depth as it could be in a specialized research paper that focuses solely on a few or even just one of these aspects.

Due to the vast complexity of leadership challenges with regard to managing remote workers and establishing an effective virtual working environment, this paper only provides a first glimpse of the methods and tools that leaders should be aware of. In return, further research is to be encouraged that explores each topic more deeply.

Once more it is necessary to emphasize both the broad scope of this paper and the novelty of fully distributed remote work. The broad scope means that more data points need to be collected for the actionable advice given in this paper in order to scientifically confirm its general validity. Therefore, the interview results and call-to-actions in the previous chapter should be considered as a first indication of the leadership challenges that emerge from implementing remote work; the steps recommended to deal with those challenges are also just indications of possible solutions—solutions that may have worked for one or more interview partners, but are not necessarily the best-practice approach nor are they guaranteed to be applicable in every situation. Leadership best practices in general are constantly changing, as are the expectations of an ever changing and evolving workforce. With Generation Y and Z entering the workforce, leaders need to be aware of a new set of values and behavioral patterns they inevitably bring with them—which in return means that leaders will have to adapt their remote work leadership methods in order to stay effective.

The novelty of the topic, specifically regarding the leadership impact on fully distributed teams, means that only a limited—and in some cases none—scientific literature in the form of research papers published in peer reviewed journals and technical literature was available. This represents a substantial research gap, especially considering the ever growing demand for remote work setups, both from employees and companies alike. It also proved to be challenging to critically discuss different perspectives and compare the results of peer reviewed studies in

order to potentially make connections where there were none before. This would have helped to gain some additional insights into the overall topic of remote work beyond what was discovered in the review of the current state of research and expanded upon in the empirical part of this paper.

Another noteworthy point is the perspective of this paper: the research is based exclusively on the experiences of managers and leaders. Although it could be argued that managers base their decisions on past empirical experiences with their employees, in an academic context this cannot be considered as sufficient consideration of the employee's perspective. In general, the influence of the hierarchical structure within a company must be considered in this respect. This can lead to employees not communicating completely honestly with a manager, which can lead to false assumptions regarding the acceptance and effectiveness of remote work measures—further emphasizing the need to understand the perspective of remote workers themselves without bias.

6.3 Outlook and recommendations for further research

6.3.1 Recommendations for further research

As established in the paper, both the demand for remote work as well as the number of employees who are already working remotely is rapidly rising. At the same time, best practices are currently forming and academia has begun to research the modern remote work setups that can be increasingly found. However, there are many variables that have yet to be looked into, since the field is constantly evolving. Three research topics seem to be particularly pressing:

1. Remote workers' point of view
2. Transitioning a co-located company towards a remote work setup
3. Viability of remote work across industries

6.3.1.1 Remote workers' point of view

This paper's research was focused on the perspective of leadership personnel and interviews were conducted exclusively with managers. However, everything that is touched upon in this

paper also directly impacts remote workers. One would expect that additional insights can be gained if research is conducted both on remote work from the employee's general point of view as well as specifically to see whether the management tools and methods recommended in the previous chapters are also deemed effective by the remote workers themselves. How do remote workers experience the challenges that are mentioned in this papers and how would they suggest to handle them?

One more important aspect to also keep in mind: What is requested from employees and defined as good leadership is ever evolving; rendering leadership methods that are currently considered to be best practices potentially obsolete within just a few years. Continuous research on leadership methods that reflect the changing needs of companies and the expectations of employees is to be encouraged.

6.3.1.2 *Transitioning a co-located company towards a remote work setup*

Remote work in general is gaining traction and an ever increasing number of highly talented job seekers are looking for jobs that offer part-time or full-time remote work options. This incentivizes businesses who traditionally operated exclusively co-located offices to introduce some form of remote work into their work culture. Unfortunately, this represents a particular challenge, since the processes these companies have established are geared towards co-located work.

Oftentimes, neither employees nor managers of traditionally co-located companies are familiar with the characteristics of remote work. Therefore, one of the questions that should be raised is how to educate staff and managers effectively regarding the challenges of remote work and the necessary processes that help to build an effective remote work environment.

Depending on the size of the business, additional fragmentation within the company might be an aggravating factor. For example, if processes are not standardized across the board, it is not possible to make a uniform recommendation on how to adapt them for compatibility with remote work. Correspondingly, further in-depth research that focuses on the successive integration of remote workers in a traditional company that has so far only operated co-located offices would surely be valuable for these businesses.

6.3.1.3 *Viability of remote work across industries*

Before the economy moved towards services, which led to a dramatic increase in the number of so-called knowledge workers, the widespread use of remote work was unthinkable. A rapid development of ICT possibilities, especially the ever-increasing computerization of the manufacturing industry and the spread of personal computers also played a major role. The transformation of these sectors has had a tremendous impact on workforce requirements. This led to remote work gaining a foothold and acceptance, especially in these industries. In the course of the fourth industrial revolution and especially industry 4.0, in which machines are augmented with advanced network connectivity, the fields in which remote work is a viable alternative to the classic model continue to broaden. Smart manufacturing, smart factories and concepts like the Internet of Things suddenly created new roles that were unthinkable just a few years prior.

This also raises the question in which sectors and industries remote work can be used effectively. For example, are consulting sessions in banks conceivable as remote video calls, and therefore open for remote workers in the future? While the prevailing opinion is currently still that such consultations presuppose personal contact and that customers also appreciate this, it remains to be seen whether a change of mind will take place in these sectors in terms of social acceptance. Smartphones are already penetrating our everyday lives and more and more people are integrating communication via these devices into their day-to-day routines and appreciate the advantages. For example, health insurance companies already offer the possibility for patients to consult their doctor via video chat.

6.3.2 The future of remote work

Interpolating from its current trajectory, it seems that remote work will be increasingly found across most industries and paygrades, worldwide. The amount of remote workers globally has increased dramatically in the past decade. Since its inception in the 1970s, remote work has managed to establish itself as a valid approach to collaboration with distinct advantages—and disadvantages—over a traditional co-located office approach. However, over the recent years, the list of disadvantage has gotten smaller due to the rapid development in ICT capabilities and the spread of highly performant personal computing devices—as well as a deeper understanding

of the required processes and collaboration habits that need to be adapted by the leaders of distributed teams in order for remote work to be effective.

Therefore, it is sound advice for managers to familiarize themselves with leadership methods that help them to successfully lead remote teams—going so far as to attending specialized remote leadership workshops. However, one could also expect, and deem necessary, that the intricacies of remote work will be addressed more thoroughly in regular undergraduate and graduate courses. Specifically MBA courses would benefit from the addition of remote work to the curricula.

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