The Challenges of Digital Leadership—a Critical Analysis in Times of Disruptive Changes

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Abstract The following paper deals with the challenges of digital leadership in times of disruptive changes, using the example of the current crisis, the Covid-19 pandemic. The research objective is to examine most important challenges of digital leadership by focusing on changes that have emerged through Covid-19, and to show leaders solutions how they could efficiently overcome the challenging times. The topic of digital leadership is more important and more present nowadays than ever. Companies and employees are experiencing a change in a new way of work. It is not that the trend towards remote work did not exist before, but the pandemic led to major consequences that have accelerated this process. In addition to a literature-based study of the topic, an empirical study was carried out. Seven experts from different industries and backgrounds were asked about the subject in a semi-structured interview. Above all, it stood out leaders especially place value on social skills and self-competences, as for instance: empathy, conflict management, self-reflection, transdisciplinary, openness to innovation and change, resilience and being communicative. Distinctly those competences help them in times of crisis to better respond to the needs and concerns of their employees.

1 Introduction

The topic digital leadership has gained more attention at latest since the outbreak of the virus SARS-CoV-2, also known as Covid-19 or Corona. Buzzwords as remote/flexible work and home office have become familiar and are nowadays used on a daily base.[1] Society has experienced various changes that not only affects their private lives but also daily routine at work. These changes have led to shifts/transformations in collaboration for individual persons, teams, companies,

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[1] The examination always focus on leading employees, respectively on the management of virtual teams. The following content does not refer to "corporate management".

industries, and even whole government systems. Thus, strategies need to be adapted or even have been changed (Jacobides & Reeves, 2020, n.p.). Moreover, traditional teams[2] necessarily need to learn how to function as a virtual group and how to collaborate digitally in an efficient way. Even though managing virtual teams is not a new form of leadership, it is still related to constant changing facets, obstacles, challenges as well as digital competences leaders need to face (Sheninger, 2019, p. 22).

Another important component is technology. One look at our daily working life, it stands out that IT is not a "cost center" anymore but works more as a "strategic enabler" (Brett, 2019, p. 13). Employees need to face complex tools and programs than they ever needed in comparison to the other industrial revolutions that the world has gone through. These technologies have an impact on the requirements of an effective leadership by also bringing challenging changes to a whole organization (Smith, 2014).

While considering on one side this complexity of technology, and on the other side disruptive changes that happen due to the Corona pandemic, the big question is: how can an effective digital leadership look like in times of disruptive changes? To answer this question, it is of special importance not only to point out the challenges of today's leadership, but also to develop a deeper understanding of humans (Brett, 2019, p. 13).

2   Theory

Before analyzing the changes and the challenges that come along with Covid-19, the meaning of a digital leader and its differentiation to traditional leadership will be pointed out first, so readers have the same origin/idea of the object of examination.

2.1   Definition and Differentiation

Digital leadership means leading by using new methods and instruments for different fields within a team, i.e. for collaboration through social media/tools, for performance evaluation through online based mobile systems or for project management through already established methods as Scrum, or similar (van Dick et al., n.d., p. 3).

In comparison to traditional leadership, leading digitally is less hierarchy-oriented, but more "integrative", as leaders share more competences and knowledge through innovative ways of communication. They and their employees try to figure out as "one unit" best ways and solutions. Failing is not seen as a weakness, but more as a continuing learning process in order to reach success sooner or later (van Dick et al. n.d., p. 22).

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[2] In the present work, the meaning of a traditional team refers to individuals working on-site together.

2.2　Changes and Challenges in Our Workplace due to Covid-19

The challenges of digital leadership are present due to the actual changes that come along with the global crisis. These changes particularly affect working conditions, development of employees as well as interpersonal relations, i.e. remote work changes communication within a team, trainings cannot easily be performed on-site and interpersonal relations get harmed by social distancing (Aternity, 2020, n.p.; Soni, 2020, n.p.; De Vos, 2020, n.p.).

Now, as theory shows there are three main resulting challenges that emerged.

2.3　Management of Virtual/Remote Teams

Managing virtual teams requires a deeper understanding of people, process, technology, and recognition that trust is more a limiting factor compared with face-to-face interactions (Serrat, 2017, p. 619). Due to the virtual communication style, teams are structured more informal than formal and employees need to be more self-managed. A leader cannot control every single step of her/his team members. Additionally, less and restrictive contact, less personal interactions, and fewer opportunities to develop and enhance relationships with colleagues, make it harder for leaders to establish as well as maintain a clear sense of group identity, communicate a (team's) vision, and to maximize synergies within the group. Another challenging fact is the emerge and development of new roles. Especially the information upon which role expectations will be established works differently and thus, has become more challenging than before the pandemic (Nydegger & Nydegger, 2008, p. 71).

2.4　Mental Health of Employees

Quarantine and isolation create a risk to mental and physical health, which can strongly affect one's productivity at work (Apfelbacher et al., 2020 p. 4; Kohll, 2018, n.p.). If employees are stressed or mentally not stable, their job performance, their engagement with the job and the communication in the team are affected negatively. In addition, physical capability suffers, therefore affected employees feel actual pain in their body and are less able to concentrate or function well through the usual workday (CDC, 2020, n.p.).

2.5 *Organizational Cultural Changes*

The fact that more people work remote makes it clearly harder to communicate and experience the culture of an organization. Organizational cultures may be even more negatively affected, if a culture is not "adaptive in real time", regardless of if a company has a very strong and strategically aligned implemented culture (Chatman & O'Reilly, 2016, n.p.). In this case, being cultural adaptive refers to an organization's capability to innovate as well as to be open minded for new things.

A study from Chatman et al. (2014, n.p.) shows that adaptive organizations earned 15% more in annual revenue compared to those in the same industry that were less adaptable. This means taking chances and continuing to cultivate organizational cultures is a key factor. It helps employees to stay focused during challenging times as well as it helps not to lose commitment and motivation (Chatman & Gino, 2020, n.p.).

3 A "VUCA" Environment and Possible Solutions

Considering these emerged changes and challenges, it is inevitable that organizational environment has not transformed as well. Leaders are surrounded by "VUCA-situations".

VUCA is an acronym which describes organizational situations or circumstances. It stands for: volatility, uncertainty, complexity and ambiguity (Whiteman, 1998, n.p., as cited in Bennett & Lemoine, 2014, p. 1). Regarding this model, circumstances can be described i.e. as volatile caused by complex, instable or unpredictable situations (Bennett & Lemoine, 2014, p. 3), or times are uncertain because of a lack of information. In complex or ambiguous situations, information is available, but it is too complex or incomplete/inaccurate, which makes it hard to understand fast (Bennett & Lemoine, 2014, pp. 3–5; Kraaijenbrink, 2018, n.p).

In times of volatility, uncertainty, complexity and ambiguity, leaders are not complete helpless. In theory, there are solutions that might be helpful to defeat such difficult times (Schrör, 2020, pp. 11–15). The author wants to present the following four ideas as they also refer to the actual Covid-19 crisis.

3.1 *Agile Leadership*

Agile leaders are capable to work and act quickly and flexibly in complex and dynamic environments. Innovative agile methods that are used today are i.e. Scrum, Design Thinking and Kanban (Franken & Franken, 2020, pp. 333–337). Another characteristic is giving more weight to individual competencies and team interaction

in extensive self-organization than to defined processes and structures in the hierarchy itself. It is also important to focus on the team's activities on the essentials for achieving team goals, above all on the daily, clearly regulated, direct communication and to free them from time-consuming hierarchy-related activities and forms of communication. Agile leaders must focus on meaning and vision, attitude, relationships, meta-perspective, employee personality as well as team dynamics (Schrör, 2020, pp. 11–15).

3.2 New Organizational Forms

In new forms of organizations typical patterns are not useful anymore due to new circumstances. Especially for leaders that hold on to former classic leadership ways and characteristics are affected then by uncertainty and anxiety to the new. One key success factor of leadership in challenging times refers to the ability to deal with such difficult emotions. The concept of "Spiral Dynamics" is one model that exists for situations as these and can be supportive for leaders. In this model Beck and Cowan (2007) emphasize the core idea of the evolution of companies along a development line determined by the further development of human consciousness. In recent years, the popularity in team-oriented organizational forms that work in a low-hierarchy atmosphere has confirmed this model (Schrör, 2020, pp. 11–15).

3.3 Self-leadership

Self-leadership is based on the concept of self- regulation, which comprises the conscious and compassionate perception of one's own feelings, and is particularly appropriate when new courses of action are developed in new situations or when it comes to consciously changing habits. These changing habits or also resources that enhances them to play an important role for intrinsic motivators. Unfortunately, an enhancement of even an "activation" of such intrinsic motivators are neglected in times of crisis, as difficult feelings unconsciously block an approach to behavior change and thus, makes it harder to get motivated by oneself (Greif & Kurtz, 1999, p. 39, as cited in Schrör, 2020, pp. 13–14).

3.4 Sense of Purpose in the Workplace

Studies show the degree of sense of purpose in the workplace is rediscovered as a success factor as more than 90% of companies with a well-defined purpose deliver growth and profits at or above the industry average. Furthermore, research found out "at companies that have clearly defined and communicated how they create value,

63% of employees say they're motivated, versus 31% at other companies; 65% say they're passionate about their work, versus 32% at other companies". This means, if there is a lack of sense of purpose in the job, workers feel lost. And over time, employees' motivation is negatively affected as well. They begin backing away from the challenges required to achieve the organization's communicated goals (PwC's Strategy Consulting Business, Strategy & 2019, n.p., as cited in Blount & Leinwand, 2019, n.p.). During a disruptive change, it is important for leaders to have a powerful, confident, motivating environment that is authentic and genuine because it is well anchored inside (Schrör, 2020, p. 26).

4 Research Method

In the following the authors is given important data regarding the research parameters.

4.1 Data Collection

The empirical part is supported by a qualitative research analysis. For this purpose, semi-structured expert interviews are conducted. The interviews were executed anonymously and are only used for the examination. A qualitative research method was chosen because of the topicality and urgency of the topic. The author wanted to focus on hearing, collecting, evaluating and learning directly from the experts' current experiences and opinions. For the interviews a guideline was created in advance (see Appendix).

4.2 Variables and Descriptive Statistics

Chosen variables are always related to the original research question (see abstract). The goal is to detect which of these variables affects the success of digital leadership during a crisis and to what extent. The author illuminates most important dependent factors in chapter four "results and discussion".

In total seven experts participated on the research. Five of them are male and two are female. They come from different industries and management fields, i.e. Sales, Business Development & Project Management, Consulting as well as Human Resources. The interview duration varies from approx. 43 to 76 min. 100% of the participants live and work in the West of Germany.

5 Results and Discussion

The results[3] can be divided into the following three subchapters.

5.1 Experienced Changes and Challenges

Six leaders mentioned the switch to flexible working or home office brought drastic transformations in the way of communication. Consecutively more chat and video tools (as i.e. MS Teams) are intensively used. Here a challenge is the absence of non-verbal communication, which is very important for leaders as they can better classify the mood and feelings of their employees with their body language. Another transformation mentioned by 85.7% is the change of meeting-structures. They said in general meetings got shorter but more frequently and it is somehow challenging to cover all important topics that needed to be discussed. Due to a lack of interpersonal relations and engagement, experts think and expect their employees to be more open-minded for other/new job positions and employers or organizations. Therefore, they also expect an increase of the turnover rate. Another side effect mentioned by one leader is the lack of the experienced team or organizational culture, due to the absence of physical offices. In times of the pandemic offices cannot be normally used. An on-site "get together" is either different or no possible at all, which makes it hard to transmit the cultural spirit of the company. Therefore, a need of change in mindset is important to figure out how to transmit/convey the spirit of a company to flexible workplaces (participant 1, min. 32:00; participant 2, min. 45:18; participant 4, min. 35:51; participant 5, min. 34:38; participant 6, min. 37:31; participant 7, min. 26:34).

5.2 Helpful Skill Set

71.4% believe most distinctive and useful skills to successfully lead through the pandemic, come from self- and social competences. Especially communicative skills, the ability for cooperation, conflict resolution, creativity, openness for changes and innovation as well as transdisciplinary are skills that experts think will particularly help in disruptive times. Key competences for an effective leadership are: empathy, resilience, being communicative, the willingness to be available for the whole team (also for non-working topics), being open for changes and innovation as well as persistency. The majority (85.7%) intuitively mentioned that especially communicative skills can be very helpful in leading teams virtually, as not only the way of

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[3] This chapter in regard to the results only contains the opinions and ideas of the participants. Here original sources are the recordings. As this study was executed as a part of the author's Master thesis and due to anonymity issues, these files are available exclusive for the examiners and the examination office at Fresenius University in Cologne.
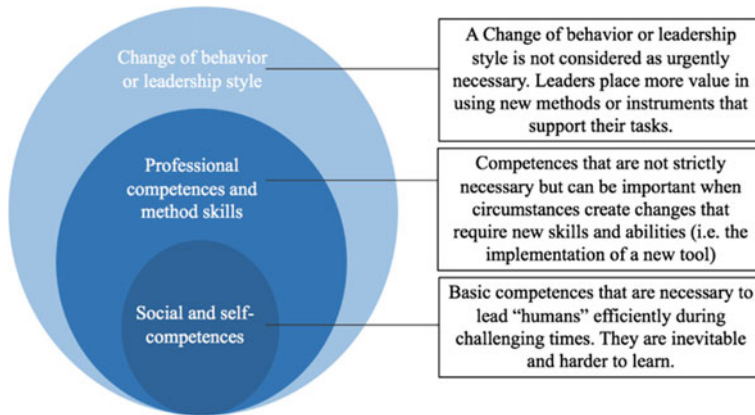
Fig. 1 Own representation: a classification of most important findings from theory and the expert interviews

communication changes, but it is also harder to maintain relationships well virtually. 71.4% said being more empathetic plays an important and centric role for a better reaction to employees' individual needs (participant 1, min 14:53; participant 3, min. 24:16; participant 4, 16:45; participant 5, min. 15:57; participant 6, min. 16:02).

The following figure (Fig. 1) summarizes the degree of importance of three variables that may affect the success of leadership during challenging times, which are 1. change of behavior or leadership style, 2. professional competences and method skills, 3. social and self-competences.

Social and self-competences are basic competences that are directly linked to a successful digital leadership. They are harder to learn but nonetheless inevitable. Professional competences and method skills do not necessarily affect the success of a digital leader. Although they can be important when challenging situations require new skills and abilities. A change in leadership style/behavior is not considered as urgent.

6 Decisive (Hard) Factors

Besides the already mentioned (soft) skills, there are essential hard factors, which are as well inevitable for a successful leadership.

6.1 Communication

Communications needs to be executed on a regular and more frequent base than before the pandemic. Here leaders need to be aware that topics which are discussed

play an important role, as the number of meetings may be increased but also got shorter. Thus, fewer topics can be discussed in one meeting. Communication channels must be kept short. Additionally, communication should be executed on several channels to reach every or as many team members as possible (participant 2, min. 01:06:38, participant 3, min. 42:15; participant 6, min. 53:06; participant 7, min. 26:34).

6.2 Technical/Workplace Equipment and Tools

An adequate installation of workplace equipment for i.e. home offices is required. Leaders are responsible for their employees to be able to work from wherever they need to work. Another important point is the workplace design. With it comes responsibility to create an ergonomic and healthy working atmosphere, i.e. by providing second screens or ergonomic office chairs. Besides, tools that ensure creativity as well as spontaneity are in great demand (i.e. MS Teams, miro, trello, etc.). Such programs support communication within a virtual team (participant 3, min. 42:15; participant 5, min. 44:23).

6.3 Trainings and Sensitizing

Disruptive transformations, different situations and new circumstances clearly lead to a rethink in order to react. Sometimes leaders have the know-how for appropriate solutions as well as measures, but sometimes even they are still learning and need to develop themselves further. Adequate trainings regarding digital leadership may be helpful to understand as well as to react better to the circumstances and employees' needs. Trainings can be also an effective way to sensitize team members for the whole topic if it is required (participant 1, min. 49:28; participant 2, min. 01:08:38; participant 3, min. 44:16; participant 4, min. 52:54; participant 6, min 54:00).

A standardized concept

It may happen that leaders feel lost or helpless during a change, when a situation is completely new to them. A standardized concept with integrated guidelines for digital leadership may be helpful to focus. What exactly should such guidelines contain? This is a question every company or leader must individually face. There is no "best practice" which suits to all companies the same. Experts agree though, that a standardized concept only may work under specific conditions. For instance, not every guideline can fit to every team, thus the concept should not be adapted obligatorily. Leaders should freely decide whether to use it or not. Nonetheless, if a company has already integrated advices on how to lead a virtual team during disruptive times, leaders may not feel lost or left alone (participant 2, min. 01:11:48; participant 3, min. 47:27; participant 6, min. 59:20; participant 7, min. 39:14).

7 Conclusion and Further Research

The results of the work show which challenging situations managers are currently dealing with during the pandemic. As the thesis only considers the point of view from leaders, it would also be interesting for future research to include the view of employees, since a crisis can be perceived very individually and subjectively. Then, on the one hand, the perception of leaders are examined, and on the other hand, the perception of employees as well. In this way, a direct comparison and research about what similarities, what differences and discrepancies exist between these two parties, are given. Another relevant view that should not be ignored in further research is the opinion of entire organizations/companies. There exist requirements for organizations so that leaders can work (more) efficiently in times of disruptive changes. To give an example, it is important that corporate agreements and standards apply that enhance flexible work, in order that employees are capable to carry out their daily activities.

Furthermore, the results of the work only relate to Germany. Another interesting perspective is a cultural comparison. Then it can be found out in which country digital leaders work most efficiently and why exactly. The respective cultural strategies/methods could possibly be implemented successfully in other countries as well. Another interesting outlook for future research is the perspective on gender and what role it plays. Are women or men getting along better in the current time and can they lead their team more efficiently? If so, what are the key factors? A study showed that "women had higher levels of empathy" than men (Toussaint & Webb, 2005, p. 679). It may be possible that women get along better in difficult times, as it is easier for females to feel empathy and thus, to better understand their employees concerns and needs.

In general, the author does believe that the problematic of digital leadership is a well discussed topic. There are many different point of views and many experts have their own approaches how to proceed during disruptive times. Although, there is no doubt that an urgency of digital leadership confronts constantly more and more leaders today and in the future.

Appendix: Expert Interview Guideline

In the following the interview guideline is attached.

Questions:
1. Do you know the meaning of digital leadership?
2. Is digital leadership an important topic in your company?
3. Is digital leadership carried out from the top management (C-Level)? If so, how is this noticeable?

4. Do you see yourself as a digital leader and do your employees believe that as well?
5. What do you think are important characteristics of a digital leader? (Characteristics)
6. Which skills does a person need to lead successfully digital these days? (Core competencies)
7. Which of the three areas of competences (professional, personal and social competences; see figure below, in the end) are most distinctive? Which ones will help you particularly in disruptive times (times of major changes)?
8. Do you adapt your "skills" and do you consider this to be necessary in order to develop further in the course of the digital transformation?
9. What connections do you see between disruptive changes and digital leadership?
10. Are you satisfied with the way your employer reacts to disruptive changes?
11. What disruptive changes have occurred in your company (or especially in your team) as a result of the corona pandemic?
12. On a scale from 1–5: How challenging are/were these changes for you and your team?

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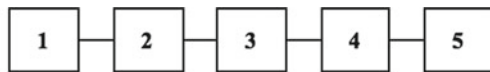
Not challenging   Extremely
    at all.   challenging.

13. How exactly did the challenges/changes affect you? How did you deal with it?
14. What special challenges do you see in virtual team management/ leadership?
15. Have you changed/adapted your management style due to the corona pandemic?
16. If you have to assess yourself, do you lead your team/ employees in the current times…

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not productive   extremely
    at all?   productive?

17. What is decisive for you in order to lead virtual teams effectively?
18. What do you need as a manager in order to be able to deal better with the topic of digital leadership or to develop yourself further in this area?
19. Would a uniform concept—integrated in the company—on the subject of digital leadership/virtual team leadership help you to lead your team better? If so, which aspects or contents could such a concept include?

20. What challenges and requirements do you see for digital managers for the future world of work (referring to ones that may not have been mentioned in the interview yet)?

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