

---

# Open Questions and Tensions in Digital Leadership Research: Why it is time to rethink leadership again



*Stefan Güldenberg, Jan G. Langhof and Karin S. Moser*

**Keywords:** Digital leadership, e-leadership, virtual leadership, remote leadership, open questions, future research avenues

**Abstract:** The current leadership literature seems to be characterized by many open questions and tensions. The art and practice of leadership involves successfully navigating between these sometimes contradicting or opposing poles and finding the right balance between various interests. Therefore, our objective for this lead essay is to relate these open questions and tensions to the opportunities and challenges of digitalization that leaders face and to derive key learnings for digital leadership research. This lead essay concludes with a proposal for a future research agenda in digital leadership research.

**Offene Fragen und Spannungsfelder in der digitalen Führungsforschung: Warum es an der Zeit ist, Führung neu zu denken**

**Zusammenfassung:** Die aktuelle Führungsliteratur scheint von vielen offenen Fragen und Spannungen geprägt zu sein. Die Kunst und Praxis der Führung besteht darin, erfolgreich zwischen diesen manchmal widersprüchlichen oder gegensätzlichen Polen zu navigieren und das richtige Gleichgewicht zwischen den verschiedenen Interessen zu finden. Ziel dieses Leitartikels ist es daher, diese offenen Fragen und Spannungsfelder mit den Chancen und Herausforderungen der Digitalisierung für Führungskräfte in Beziehung zu setzen und zentrale Erkenntnisse für die digitale Führungsforschung abgeleitet. Dieser Leitartikel schliesst mit einem Vorschlag für eine zukünftige Forschungsagenda im Bereich der digitalen Führungsforschung.

**Stichworte:** Digitale Führung, E-Leadership, virtuelle Führung, Remote Leadership, offene Fragen, künftige Forschungsansätze

The current leadership literature seems to be characterized by many open questions and tensions. On the one hand leaders are confronted with the expectations and directives of their own superiors and the organization as a whole (Alvesson, 2017), on the other hand leaders are faced with the needs and demands of their subordinates and work unions. The art and practice of leadership involves successfully navigating between these sometimes contradicting or opposing poles and finding the right balance between various interests.

Thus, leadership scholars commonly refer to “leadership dichotomies” (Collinson, 2014) to highlight not only different interests but also different leadership styles, competencies, or influences.

In fact, looking into the leadership literature of the last decades, we may notice, as Collinson (2014: 38) says, a “*tendency in the leadership literature to dichotomize power and influence.*” The tendency, however, to view leadership styles, like transformational and transactional leadership, as opposing poles is highly controversial and is widely seen as a simplified reflection of reality (Collinson, 2014). Even James MacGregor Burns (1978: 19), an important voice in leadership studies, originally considered transformational and transactional leadership to be “*two fundamentally different forms*” but decades later acknowledged that his conceptualization was “over-dichotomized” (Burns, 2007).

But, beyond any debates about conceptual dichotomies, we cannot ignore that tensions, dilemmas, and contradictions are an inherent part of leadership roles (Manz et al., 2008; Putnam et al. 2016). Digitalization is currently intensifying existing tensions which are becoming more relevant and more widespread due to new technological advancements (cf. Neufeld & Fang, 2005) as well as creating entirely new challenges which leaders have to address (Banks et al., 2022; Klus & Müller, 2021; Kvalnes, 2020). These increased and new challenges are generally subsumed under terms like ‘digital leadership’ (Güldenberg & Langhof, 2021), ‘e-leadership’ (Aviolo et al., 2000), ‘virtual leadership’ (Ziek & Smulowitz, 2014) or ‘remote leadership’ (Krehl & Büttgen, 2022), indicating that digital technologies have changed leadership practices in profound ways. This change has been further accelerated by the Covid-19 pandemic and the necessity to work from home (Rivkin, Moser, Diestel & Alshaik, 2020 & 2023). Differences between face-to-face and digital leadership have become much more visible, which led to a new research agenda in the field of digital leadership (Cortellazzo et al., 2019; Jameson et al., 2022). Therefore, our objective for this lead essay is to relate these dichotomies and tensions to the opportunities and challenges of digitalization that leaders face and to derive recommendations for future research on digital leadership.

## 1. Off-site vs. On-site vs. Hybrid Leadership

One of the most obvious tensions is the one in between face-to-face and remote leadership: While everything to do with remote leadership has become increasingly important due to new technological possibilities, and particularly since the Covid-19 pandemic (Bennet et al., 2023), it’s important to keep in mind that it is nothing new. Even in the 1970s and 1980s, telework and telecommuting and differences between distributed and co-located teams were already intensively studied (Culnan & Markus, 1987; Nilles, 1975 & 1988; Sproull & Kiesler, 1986). For example, remote supervision via telephone has been practiced successfully in travelling sales and service provision for many decades, as well as remote oversight over different locations within the same business or organization. Remote leadership alongside face-to-face supervision has now spread across all public and private sector organizations in the past two decades, largely due to the advancement of technological innovation and capabilities, from the ubiquitous availability of wireless connections and high-speed data transmissions to sophisticated video and texting software and interactive multimedia online platforms (Moser, 2013; Moser & Axtell, 2013). Leading teams that are distributed across the globe can have several benefits for companies and their leaders, ranging from lower costs for travel, relocation, and office space to

global access to skilled workers (Acosta & Moreno, 2005). There are, however, many less obvious costs of remote leading and working, ranging from increased communication and coordination requirements, and ensuring both leaders and employees have the corresponding competencies to setting appropriate norms and expectations for online collaborations and leadership (Moser & Axtell, 2013; Moser, 2013).

Remote teams and employees also need to be able to self-lead to a higher degree, which includes being able to coordinate and organize daily work tasks to self-regulate emotional and behavioral reactions without the opportunity to check in with both peers and supervisors as easily as this is done in physical co-located work environments (Rivkin, Moser, Diestel & Alshaik, 2020 & 2023). These higher self-regulation requirements provide increased autonomy on the plus side, but it is undeniably an additional cognitive and social load of remote working and leading that is often underestimated. We also know from long-standing research over the past 25 years that the increased leanness, higher anonymity, and the loss of context and social cues of digitally mediated work interactions can lead to increased aggression, less politeness, and a diffusion of responsibility (Cramton, 2001; Postmes et al, 2000; Spears, Postmes, Lea, & Watt, 2001).

Moreover, our biases and information processing shift significantly in remote work environments and means that we generally underestimate the effect of our own actions and words but overestimate the words and actions of others we interact with, without consciously realising that this happens (Axtell, Moser & McGoldrick, 2019). These effects are directly connected to the increased asynchronicity of virtual work processes and the loss of context and social cues and the reduced complexity in virtual communication, namely fewer or no non-verbal and paraverbal signals, even in video conferences.

If these important changes in the switch from a face to face to a virtual work environment are not appropriately managed and supported from the start, with adequate resources for training and time for the additional communication and coordination needs of remote leading and working and appropriate norm setting for virtual work, then there is a risk of increased counter productive work behaviours, such as social loafing, increased conflicts, mistakes, and misunderstandings which in turn can negatively impact collaboration, work motivation and performance (Bosch-Sijtsema, 2007; Hinds & Bailey, 2003). Often, these new and/or increased requirements of remote leadership and collaborations are still neglected today and not given appropriate attention until they become a problem (Moser, 2013). More research as well as training and awareness are required on all organizational levels, from leadership training to teamwork and individual employee self-management to ensure that the opportunities and benefits of remote leadership and virtual work can be fully harvested, and the negative impacts avoided. This is even more true in the ‘new normal’ of hybrid work models in many organizations today where employees and leaders constantly switch between onsite and offsite working.

## **2. Control vs. trust: Monitoring performance in virtual work environments**

According to Luhmann (1979), trust is a way to reduce social complexity to a level at which the individual remains capable of acting within society. Luhmann's definition can be interpreted as trust being a way to reduce transaction costs in the economic sense (Shionoya, 2004). Following Luhmann's view, we can conclude that this gap may be compensated by more trust or increased transaction costs (e.g., in the form of new monitoring tools) in virtual work environments. Developing trust within a team and particularly

between leaders and followers is therefore more important than ever in remote leadership. This is confirmed by an ever-increasing body of research on how trust can be developed and maintained in virtual work (Jarvenpaa, Shaw & Staples, 2004; Crisp & Jarvenpaa, 2013).

While the trend towards remote work is eroding the traditional means of monitoring employees on-site, we can also witness that leaders can increasingly draw on new tools to monitor and control their remote employees (Jeske, 2021). The debate about the new tools of digital surveillance opens up multiple ethical and legal issues (e.g. Tursunbayeva et al. 2021), yet unresolved and often still unregulated as new legislation and ethical guidelines need to be developed.

While digitalization opens new ways of remote monitoring of employees (Giacosa et al., 2023), electronic surveillance is limited, and it is not possible – or desirable! – to monitor every activity of an employee (Charbonneau & Doberstein, 2020). As mentioned above, one of the advantages of virtual work is that it increases autonomy for employees in organizing their tasks and work routines which for many has great motivational as well as performance benefits (Ewers & Kangmennaang, 2023).

Leaders can no longer easily execute subtle checks and coordinate implicitly by being present and showing interest and encouragement. Non-verbal communication (Bonaccio et al., 2016), such as eye contact, facial expressions and spontaneous doorstep interactions with as well as between team members are no longer as feasible (Hinds & Mortensen, 2005). In other words, virtual work requires leaders to have greater trust (Yao et al., 2022) that their subordinates are productive even without ‘seeing’ them at work and monitoring their presence. For leaders, remote work means leading more by persuasion and less by demands or instructions (cf. Moser, 2013; Langhof & Güldenberg, 2019). Maintaining an authoritarian leadership style may, thus, become increasingly difficult. At the same time, the absence of the leader’s and other team members’ physical presence requires employees to engage in more self-leadership (Castellano et al., 2021). To support employee self-leadership, new tools may be helpful, such as analytics software and teaching or coaching software, which provide employees with guidance for work (Durnali, 2020; Huang et al., 2023; Rosett & Hagerty, 2022).

### **3. Narcissistic Leadership vs. Servant Leadership**

A third important tension arises between narcissistic leadership (Rosenthal & Pittinsky, 2006), alongside increasing narcissism in society more generally on the one hand (Vater et al., 2018; Young et al., 2015), and a trend to promote more servant leadership and a follower-centric leadership philosophy on the other hand (Finley, 2012). Among leadership researchers, servant leadership is currently considered one of the most effective leadership styles because it allows the leader to create and foster a culture of trust (Sendjaya & Pekerti, 2010).

A narcissistic leadership style is characterized by putting the needs of the leader first, at the expense of the followers (Carnevale et al., 2018; Rosenthal & Pittinsky, 2006). Due to a narcissistic need for control, the leadership style is often described as authoritarian or even dictatorial (Rovelli, & Curnis, 2021). It is thus in a stark contrast to servant leadership, which prioritizes the needs of the followers (Langhof & Güldenberg, 2020). Grandiose narcissists are often found in leadership positions and sometimes even considered ‘born leaders’ due to their charisma and ability to draw others in (Schyns et al., 2022,

2023; Steyrer, 2013). Research by Brunell et al. (2008) suggests that in groups without hierarchical structures, narcissists happily take control. They are often very ambitious and strive for leadership positions (Braun, 2017).

Recent research suggests that the proportion of narcissists in the population may have increased overall in recent decades (Twenge & Campbell, 2010), with some researchers even referring to a “narcissism epidemic” (Twenge & Campbell, 2013; Vater et al., 2018: 2). The reasons for this increase in narcissism are disputed with several studies suggesting that modern demands of society and work may promote or facilitate narcissism. For example, Vater et al. (2018) found a significant higher occurrence of grandiose narcissism for people who grew up in West Germany compared to those that grew up in East Germany. However, in reunified Germany, which is now capitalist as a whole, this difference can no longer be observed today (Vater et al., 2018).

Chamorro-Premuzic (2023) postulates in his recent summary of psychological studies that the rise in narcissism may be due to the prominence of social media. Twenge & Campbell (2010) for example, found in their longitudinal studies that narcissism increased by 30 % in the U.S. between the late 1970s and the mid-2000s. One of the main statements in their clinical analysis was: *‘I am important and famous.’* In the 60s, around 12 % of young people endorsed this statement. By the 90s, that number had increased to 80 %. At the same time, we are witnessing a trend toward more servant leadership in business (Lemoine et al., 2021; Wong et al., 2023), which may seem paradoxical, given the postulated increase in narcissism. With servant leadership focusing on the needs of the followers, some scholars argue that it should be impossible for narcissists to even practice servant leadership (Brouns et al., 2020; Langhof & Güldenberg, 2019; Waddell & Patterson, 2018). The characteristics and behavior of typical narcissists fundamentally contradict the philosophy of servant leadership. For example, the narcissists' dominant demeanor, self-centeredness, and desire for control stands in stark contrast to the idea of more empowerment for employees and to putting the needs of the subordinates first (Liden et al., 2014).

Although the basic principle of servant leadership is not new, it has become increasingly popular, especially in recent decades (Finley, 2012; Langhof & Güldenberg, 2019; Prosser, 2010). An increasing number of companies have implemented servant leadership as their philosophy (Dierendonck & Patterson, 2010; Eva et al., 2019; Spears & Lawrence, 2002). Especially in the IT sector, servant leadership has become more and more popular (Guillaume et al., 2012).

The trend towards remote and hybrid work models calls for more participative leadership styles and thus increases the importance and prevalence of servant leadership (Brown & Hardaway, 2023; Chakraborty et al., 2023). Some scholars and leadership experts even argue that virtual teams and the challenges of digitalization actually require servant leadership (Tagscherer & Carbon, 2023). With recent developments in AI supported technologies even more leadership and administrative tasks can be automated and thus, quintessentially human abilities, such as empathy, are becoming increasingly important (Kolbjørnsrud et al., 2016). In a recent study, Ludwikowska & Tworek (2022) examined the role of IT dynamic capabilities in the context of servant leadership. Their results show *“that IT dynamic capabilities indeed strengthen the positive influence of servant leadership on organizational performance, boosting the positive role of servant leadership in contemporary organizations.”* (Ludwikowska & Tworek, 2022).

#### 4. Social Identity and the need to belong vs. the lone warriors

A fourth important tension arises around the area of social identity and the need to belong. As we know from motivation and management control theories, the need to belong (Baumeister, 2012) is one of the strongest drivers of motivation, performance, and alignment with others. Human beings are social animals with an inherent need for social interactions and identity.

When employees work together in the same *physical* space, they share many experiences and memories that occur ‘naturally’, often informally and unintentionally, alongside working together. They may literally go through ‘thick and thin’ together when they strive to meet deadlines and complete demanding tasks and projects, which can also lead to forming and forging friendships (Flood, 2019). These social bonds are important because employees feel part of a community that they belong to, which in turn may lead to greater loyalty and higher identification with the employer or the team (Fiol & O’Connor, 2005; Todorova, Argote & Reagans, 2008) and reduce turnover (Akgunduz & Bardakoglu, 2015). Leaders of virtual teams face the challenge that this sense of community and belonging no longer evolves ‘naturally’ through physical proximity and the informal interactions that are part of face to face working environments. They have to invest considerable effort into nurturing and developing this sense of community in new ways for their distributed, remote team members (Newman & Ford, 2021; Flood, 2019).

#### 5. Short-term vs long-term focus

A fifth important tension is the one in between the need of focusing attention on the long-term goals of leadership such as developing a nurturing, collaborative culture vs. the seemingly simple short-term gains of technological solutions, associated with a myopic leadership focus.

Leaders are constantly struggling with where to focus their attention and under immense pressure to deliver results. By necessity, their focus is often short-term, and problem driven. Many leaders struggle to step back from their operational routines and quick win perspective and tend to lose sight of the bigger picture and their mid- to long-term goals. But this is exactly what is needed in a crisis-driven world.

The introduction of new technology at work still far too often ‘just happens to us’, driven by what is technologically possible and without strategic planning and introduction as part of longer-term business goals (Moser, 2013). As technological developments are accelerating even more, with AI-based technology taking over more and more leadership support functions (Güldenberg & Langhof, 2021; Langhof & Güldenberg, 2022), leaders run the risk to stay busy following the fast-paced rhythm of algorithm developments instead of proactively delegating selected leadership task to AI generated technologies in order to free up their – to date still – irreplaceable human capabilities of empathy, anticipation, and complex problem solving for more long-term strategic planning, decision making, and leadership.

## 6. Key learnings and future research avenues

### Key learnings

Alongside the rise of artificial intelligence and digitalization, leadership research and practice experience fundamental questions and tensions. In this essay we have identified five major issues that need addressing: Off-site vs. on-site vs. hybrid leadership, control vs. trust in virtual work, narcissistic vs servant leadership, social identity, and the need to belong vs. the lone warriors, and short term vs. long term focus in leadership. In order to resolve these open questions and tensions, we argue that it is time to rethink leadership again as traditional models and concepts are often contradictory and/or no longer fit for purpose:

Firstly, following on from the classical studies of Mintzberg (1973), it is time to again pay attention to not only the time spent, but most of all the way in which leaders manage people face-to-face and online. To be effective, remote leaders need to adapt their communication, collaboration and leadership style to the virtual world of work, with its fewer social cues and context information, much higher asynchronicity in work processes, and its shift of cognitive biases and information processing that lead to an underestimation of the effects one's own actions and an overestimation of others' actions (Moser, 2013; Axtell, Moser & McGoldrick, 2019).

A second important issue is the tension between control and trust when aiming for high performance, which is an old debate but poses new problems in virtual work. While there are new technological possibilities via digital surveillance tools, they raise many yet unresolved ethical and legal questions and can have diametral effects of increased stress and demotivation of employees, with potentially negative impacts on both performance and mental health of remote workers. Developing trust in a virtual work setting on the other hand requires support, frequent communication, time, and a confident leader who can bring employees alongside via persuasion and alignment to the shared goals. In a work environment governed by trust between leaders and subordinates, tech-based tools are simply more support for shared goals that work for people, and not autonomous means of control of people (Weibel, Schafheite & van der Werff, 2023).

Thirdly, possibly one of the tensions more present than ever is the one in between an overconfident leader vs increased autonomy and empowerment of workers, exemplified in the contrast between narcissistic and servant leadership. Recent research shows that the rise of social media may have contributed to an increase in the number of narcissists and narcissistic leaders while at the same time businesses and leaders increasingly call for models of servant and shared leadership and the empowerment of the workforce. Following Argyris & Schön (1974) there seems to be an ever-larger gap between the espoused theory and the theory-in-use in leadership research.

A fourth important tension arises around the area of social identity and the need to belong vs. the lone warriors. The need to belong (Baumeister, 2012) is one of the strongest drivers of motivation and performance for human beings as social animals. Leaders of virtual teams face the challenge that this sense of community and belonging no longer evolves 'naturally' through physical proximity and the informal interactions that are part of face to face working environments. They have to invest considerable effort into nurturing and developing this sense of community in new ways for their distributed, remote team members (Newman & Ford, 2021; Flood, 2019).

A fifth important tension is the one between short vs. long-term focus in planning, decision-making, and leadership. Digitalization and technology at work often ‘just happen to us’, driven by what is technologically possible and without strategic planning and introduction as part of longer-term business goals (Moser, 2013). As technological developments are accelerating even more (Güldenberg & Langhof, 2021; Langhof & Güldenberg, 2022), leaders run the risk to stay busy following the fast-paced rhythm of algorithm developments instead of proactively delegating selected leadership task to AI generated technologies in order to free up their – to date still – irreplaceable human capabilities of empathy, anticipation, and complex problem solving for more long-term strategic planning, decision making, and leadership. This requires a purposeful, confident leadership, with at the same time enough well-founded tech knowledge or advice to make well informed decisions for the future.

Based on these key learnings and current challenges, we would like to propose in the following paragraphs six points for an agenda for future (digital) leadership research.

### **Future research avenues**

1. Defining digital leadership capabilities: Online leadership and work require new capabilities on both sides, the leader as well as the employee side, that yet need to be defined. Leaders need to have a good understanding of how digital and AI powered technology can support them but at the same time know its limits and possible pitfalls. Both employees and leaders need to increase their understanding of the core differences between face to face and online work and the increased need for self-leadership and time management that the greater work autonomy associated with virtual work requires. Both sides need to understand that online work requires more and more frequent communication and feedback giving and seeking from both sides compared to co-located work. This leads by necessity to a more participative and collegial leadership style. Further research is needed in order to better understand and support HR in defining the future digital skillsets needed for leaders and the workforce as a whole to maintain productivity in the digital age.
2. Balancing control and trust: With increasing technological possibilities we see also a growing trend of digital surveillance. This comes potentially at a high price if applied thoughtlessly, without the necessary transparency and knowledge, and without the involvement of the employees that are electronically supervised. Future research must understand better under which conditions digital controls facilitate or hinder employees’ productivity and their trust in a digital working environment. At the same time, we need more research on how trust is developed and maintained in virtual teams and and more research insights into the best balance of onsite vs online work when it comes to trust building and work productivity.
3. Analyzing the risky side of digital leadership: In their systematic literature review, Jameson et al. (2022) show that the majority of digital leadership studies see technology as a mostly positive and unproblematic enabler. This needs to be balanced with more research that takes a constructively critical perspective, including studies on the macro level (leadership and organization, leadership and digital tools, technology and ethics, social and societal implications) as well as on the micro level (the role and behavior of leaders, leaders’ digital skills, leadership practices for leading virtual teams and organizations).

4. Similar issues arise from the contradictions between narcissistic and servant leadership. On the one hand, there seems to be an increasing number of narcissists in our societies. On the other hand, there seem to be more and more businesses call for servant leadership models as their philosophy. Future research can hopefully shed more light on the reasons for these seemingly paradoxical developments.
5. Understanding the role of work motivation in the digital age: Human beings are social animals and organizations are social organisms, which fulfil important needs to belong and for social identification of its members. This poses new challenges in virtual work environments where people work far apart in their separate home offices and have far less direct and as well less informal work interactions with their bosses and peers. While the home office provides opportunities for many other meaningful social connections with family, partners, and friends, there is the danger of social isolation and loneliness in the workplace. Working from home also means that there is a greater blurring of lines between the private and work domains that need to be managed to avoid exploitation and exhaustion. How and in what ways does digitalization change the role of organizations, of leadership and how will it impact quality of life are still open questions that need to be much more researched.
6. Managing attention and reducing distractions: One of the biggest challenges of digital technology is the increasing density of the work as well as the tendency to multitask and workflow interruptions. These need to be proactively managed as technology tempts us again and again to follow its algorithmic logic which may not be what is beneficial for productivity and wellbeing at work. Chat pop-up windows and messaging need to be actively managed, and we need more empirical evidence to understand the potentially negative outcomes of these technology driven workflows. The objective of this lead essay was to bring together a comprehensive summary of currently open core questions and tensions in leadership research and debates and to relate them to the opportunities and challenges of digitalization for leaders. With this, we hope to derive key learnings as well as recommendations for future research on digital leadership that will hopefully provoke further thoughts and debate, as well as inspire future research on digital leadership.

## References

Acosta, C., & Moreno, E. (2005). Distributed Engineering teams and their organizational aspects. *IFAC Proceedings Volumes*, 38(1), 19–24. <https://doi.org/10.3182/20050703-6-cz-1902.01386>

Akgunduz, Y., & Bardakoglu, O. (2015). The impacts of perceived organizational prestige and organization identification on turnover intention: The mediating effect of psychological empowerment. *Current Issues in Tourism*, 20(14), 1510–1526. <https://doi.org/10.1080/13683500.2015.1034094>

Akgunduz, Y., & Bardakoglu, O. (2015). The impacts of perceived organizational prestige and organization identification on turnover intention: The mediating effect of psychological empowerment. *Current Issues in Tourism*, 20(14), 1510–1526. <https://doi.org/10.1080/13683500.2015.1034094>

Alvesson, M. (2017). Leadership: Convergence and divergence in leadership relations. *Journal of Management Inquiry*, 28(3), 319–334. <https://doi.org/10.1177/1056492617717339>

Argyris, C. & Schon, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass.

Avolio, B. J., Kahai, S., and Dodge, G. E. (2000). E-leadership: implications for theory, research, and practice. *Leader. Q.* 11, 615–668. doi: 10.1016/S1048-9843(00)00062-X

Axtell, C., Moser, K. S. & McGoldrick, J. (2019). Professional Status and Norm Violation in Email Collaboration. *Team Performance Management*. <http://doi.org/10.1108/TPM-07-2019-0083>

Banks, G. C., Dionne, S. D., Mast, M. S., & Sayama, H. (2022). Leadership in the Digital Era: A review of who, what, when, where, and why. *The Leadership Quarterly*, 33(5), 101634. <https://doi.org/10.1016/j.lequa.2022.101634>

Baumeister, R. F. (2012). Need-to-belong theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 121–140). Sage Publications Ltd. <https://doi.org/10.4135/9781446249222.n32>

Benitez, J., Castillo, A., Ruiz, L., Luo, X. (Robert), & Prades, P. (2023). How have firms transformed and executed it-enabled remote work initiatives during the COVID-19 pandemic? conceptualization and empirical evidence from Spain. *Information & Management*, 60(4), 103789. <https://doi.org/10.1016/j.im.2023.103789>

Bonaccio, S., O'Reilly, J., O'Sullivan, S. L., & Chiocchio, F. (2016). Nonverbal behavior and communication in the Workplace. *Journal of Management*, 42(5), 1044–1074. <https://doi.org/10.1177/0149206315621146>

Bosch-Sijtsema, P. M. (2007). The impact of individual expectations and expectation conflicts on virtual teams. *Group & Organization Management*, 32, 358–388.

Brown, V. M., & Hardaway, Y. (2023). Servant leadership during an epoch of Accelerated Digital Disruption. *The Palgrave Handbook of Servant Leadership*, 1023–1038. [https://doi.org/10.1007/978-3-031-01323-2\\_60](https://doi.org/10.1007/978-3-031-01323-2_60)

Burns, J. M. (1978). *Leadership*. Harper Row.

Burns J.M. (2007). Foreword. In: Couto R (ed.) *Reflections on Leadership*. Lanham, MD: University Press of America, pp. v–viii.

Braun, S. (2017). Leader narcissism and outcomes in organizations: A review at multiple levels of analysis and implications for future research. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.00773>

Brouns, T., Externbrink, K., & Blesa Aledo, P. S. (2020). Leadership beyond narcissism: On the role of compassionate love as individual antecedent of servant leadership. *Administrative Sciences*, 10(2), 20. <https://doi.org/10.3390/admisci10020020>

Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader emergence: The case of the narcissistic leader. *Personality and Social Psychology Bulletin*, 34(12), 1663–1676. <https://doi.org/10.1177/0146167208324101>

Carnevale, J., Huang, L., & Harms, P. (2018). Speaking up to the “Emotional vampire”: A conservation of resources perspective. *Journal of Business Research*, 91, 48–59. <https://doi.org/10.1016/j.jbusres.2018.05.041>

Castellano, S., Chandavimol, K., Khelladi, I., & Orhan, M. A. (2021). Impact of self-leadership and shared leadership on the performance of virtual R&D teams. *Journal of Business Research*, 128, 578–586. <https://doi.org/10.1016/j.jbusres.2020.12.030>

Chakraborty, T., Awan, T. M., Natarajan, A., & Kamran, M. (2023). *Agile Leadership for Industry 4.0: An indispensable approach for the digital era*. Apple Academic Press.

Chamorro-Premuzic, T. (2023). Are You a Digital Narcissist? *Harvard Business Review*, April 10, <https://hbr.org/2023/04/are-you-a-digital-narcissist>

Charbonneau, É. & Doberstein, C. (2020). An empirical assessment of the intrusiveness and reasonableness of emerging work surveillance technologies in the public sector. *Public Administration Review*, 80(5), 780–791. <https://doi.org/10.1111/puar.13278>

Collinson, D. (2014). Dichotomies, dialectics and Dilemmas: New Directions for Critical Leadership Studies? *Leadership*, 10(1), 36–55. <https://doi.org/10.1177/1742715013510807>

Cortellazzo L., Bruni E. and Zampieri, R. (2019) The Role of Leadership in a Digitalized World: A Review. *Front. Psychol.* 10:1938. doi: 10.3389/fpsyg.2019.01938

Cramton, C. D. (2001). The mutual knowledge problem and its consequences for dispersed collaboration. *Organization Science*, 12, 346–371.

Crisp, C. B. & Jarvenpaa, S. L. (2013) Swift trust in global virtual teams: Trusting beliefs and normative actions, *Journal of Personnel Psychology*, 12,

Culnan, M. J. & Markus, M. L.. (1987). Information Technologies. In Frederick M. Jablin, Karlene H. Roberts, Linda L. Putnam, and Lyman W. Porter (Eds.), *The Handbook of Organizational Communication*, (pp 420–443) Newbury Park, CA: Sage Publications.

Dierendonck, D. van, & Patterson, K. (2010). *Servant leadership developments in theory and research*. Palgrave Macmillan.

Durnali, M. (2020). The effect of self-directed learning on the relationship between self-leadership and online learning among university students in Turkey. *Tuning Journal for Higher Education*, 8(1), 129–165. [https://doi.org/10.18543/tjhe-8\(1\)-2020pp129-165](https://doi.org/10.18543/tjhe-8(1)-2020pp129-165)

Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2019). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, 30(1), 111–132. <https://doi.org/10.1016/j.lequa.2018.07.004>

Ewers, M., & Kangmennaang, J. (2023). New spaces of inequality with the rise of remote work: Autonomy, technostress, and Life Disruption. *Applied Geography*, 152, 102888. <https://doi.org/10.1016/j.apgeog.2023.102888>

Finley, S. (2012). Servant Leadership: A Literature Review. *Review of Management Innovation & Creativity*, 5(14), 135–144.

Fiol, C. M., & O'Connor, E. J. (2005). Identification in face-to-face, hybrid, and pure virtual teams: Untangling the contradictions. *Organization Science*, 16(1), 19–32. <https://doi.org/10.1287/orsc.1040.0101>

Fiol, C. M., & O'Connor, E. J. (2005). Identification in face-to-face, hybrid, and pure virtual teams: Untangling the contradictions. *Organization Science*, 16(1), 19–32. <https://doi.org/10.1287/orsc.1040.0101>

Flood, F. (2019). Leadership in the remote, freelance, and Virtual Workforce Era. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1–5. [https://doi.org/10.1007/978-3-319-31816-5\\_3825-1](https://doi.org/10.1007/978-3-319-31816-5_3825-1)

Flood, F. (2019). Leadership in the remote, freelance, and Virtual Workforce Era. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1–5. [https://doi.org/10.1007/978-3-319-31816-5\\_3825-1](https://doi.org/10.1007/978-3-319-31816-5_3825-1)

Giacosa, E., Alam, G. M., Culasso, F., & Crocco, E. (2023). Stress-inducing or performance-enhancing? safety measure or cause of mistrust? the paradox of digital surveillance in the Workplace. *Journal of Innovation & Knowledge*, 8(2), 100357. <https://doi.org/10.1016/j.jik.2023.100357>

Gibb, C.A. (1954). Leadership. In G. Lindzey (Ed.), *Handbook of social psychology, volume 2* (pp. 877–917). Reading, MA: Addison-Wesley.

Guillaume, O., Honeycutt, A., & Cleveland, C. S. (2012). Servant Leadership Trends Impact on 21st Century Business. *International Journal of Business and Social Research*, 2(5), 1–7.

Güldenberg, S. and Langhof, J.G. “Digital Leadership and Technology,” in Managing Work in the Digital Economy: Future of Business and Finance, Güldenberg et al., Ed. Cham: Springer, 2021, 157–173. DOI: 10.1007/978-3-030-65173-2\_10

Handy, C. (1991). *The Age of Unreason*, Harvard Business Review Press.

Hinds, P., J. & Bailey, D., E. (2003) Out of sight, out of sync: Understanding conflict in distributed teams. *Organization Science*, 14, 615–632

Hinds, P. J., & Mortensen, M. (2005). Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication. *Organization Science*, 16(3), 290–307. <https://doi.org/10.1287/orsc.1050.0122>

Huang, X., Yang, F., Zheng, J., Feng, C., & Zhang, L. (2023). Personalized human resource management via HR Analytics and Artificial Intelligence: Theory and implications. *Asia Pacific Management Review*. <https://doi.org/10.1016/j.apmrv.2023.04.004>

Hughes, G. (2010). Identity and Belonging in Social Learning Groups: The Importance of Distinguishing Social, Operational and Knowledge-Related Identity Congruence.” *British Educational Research Journal*, vol. 36, no. 1, 2010, pp. 47–63. DOI: 10.1080/01411920902834167

Jameson, J., Rumyantseva, N., Cai, M., Markowski, M., Essex, R. and McNay, I. (2022) *A systematic review and framework for digital leadership research maturity in Higher Education*. Computers and Education Open, 3:100115. pp. 1–27. ISSN 2666–5573 (DOI: <https://doi.org/10.1016/j.caeo.2022.100115>)

Jarvenpaa, S. L., Shaw, T. R., & Staples, D. S. (2004). Toward Contextualized Theories of Trust: The Role of Trust in Global Virtual Teams. *Information Systems Research*, 15(3), 250–267. <https://doi.org/10.1287/isre.1040.0028>

Jeske, D. (2021). Monitoring remote employees: Implications for HR. *Strategic HR Review*, 20(2), 42–46. <https://doi.org/10.1108/shr-10-2020-0089>

Klus, M. F., & Müller, J. (2021). The Digital leader: What one needs to master today's organisational challenges. *Journal of Business Economics*, 91(8), 1189–1223. <https://doi.org/10.1007/s11573-021-01040-1>

Kolbjornsrud, V., Amico, R., & Thomas, R. J. (2016). How Artificial Intelligence Will Redefine Management. *Harvard Business Review*, 1–6.

Krehl, E.-H. & Büttgen, M. (2022). Uncovering the complexities of remote leadership and the usage of digital tools during the COVID-19 pandemic: A qualitative diary study. *German Journal of Human Resource Management: Zeitschrift für Personalforschung*, 36(3), 325–352. [doi.org/10.177/23970022221083697](https://doi.org/10.177/23970022221083697)

Kvalnes, Ø. (2020). Digital Dilemmas in organizations. *Digital Dilemmas*. Palgrave Macmillan, 1–15. [https://doi.org/10.1007/978-3-030-45927-7\\_1](https://doi.org/10.1007/978-3-030-45927-7_1)

Langhof, J. G., & Güldenberg, S. (2019). Leadership and the significance of formalized organizational structures. *Journal of Management History*, 25(3), 341–363. <https://doi.org/10.1108/jmh-12-2018-0066>

Langhof, J. G., & Güldenberg, S. (2019). Servant leadership: A systematic literature review—toward a model of antecedents and outcomes. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, 34(1), 32–68. <https://doi.org/10.1177/2397002219869903>

Langhof, J. G., & Güldenberg, S. (2020). King Frederick the Great – Anti-Machiavellian and Servant Leader? *Journal of Management History*, 26(2), 137–164. <https://doi.org/10.1108/jmh-05-2019-0034>

Lemoine, G. J., Eva, N., Meuser, J. D., & Falotico, P. (2021). Organizational performance with a broader focus: The case for a stakeholder approach to leadership. *Business Horizons*, 64(4), 401–413. <https://doi.org/10.1016/j.bushor.2020.10.007>

Liden, R. C., Wayne, S. J., Liao, C., & Meuser, J. D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. *Academy of Management Journal*, 57(5), 1434–1452. <https://doi.org/10.5465/amj.2013.0034>

Ludwikowska, K., & Tworek, K. (2022). Dynamic capabilities of it as a factor shaping servant leadership influence on organizational performance. *Procedia Computer Science*, 207, 34–43. <https://doi.org/10.1016/j.procs.2022.09.035>

Luhmann, N. (1979). *Trust and power*. Wiley.

Manz, C. C., Anand, V., Joshi, M., & Manz, K. P. (2008). Emerging paradoxes in executive leadership: A theoretical interpretation of the tensions between corruption and virtuous values. *The Leadership Quarterly*, 19(3), 385–392. <https://doi.org/10.1016/j.lequa.2008.03.009>

Martinez-Ruiz, M. P. & Moser, K. S. (2019). Studying consumer behaviour in an online context: The impact of the evolution of the World Wide Web for new avenues in research. *Frontiers in Psychology, Organisational Psychology*. <http://doi.org/10.3389/fpsyg.2019.02731>

Mintzberg H (1973) The Nature of Managerial Work. Harper and Row, New York

Moser, K. S. (2013). *Only a click away? – What makes virtual meetings, emails and outsourcing successful*. Industry Award Winner, Management Articles of the Year 2013 (pp. 25–30). London: Chartered Management Institute UK. ISBN 0–85946–458-x

Moser, K. S. & Axtell, C. (2013). Norms in virtual work: A review and agenda for future research. *Journal of Personnel Psychology*, 12, 1–6. <https://doi.org/10.1027/1866-5888/a000079>

Newman, S. A., & Ford, R. C. (2021). Five steps to leading your team in the virtual COVID-19 workplace. *Organizational Dynamics*, 50(1), 100802. <https://doi.org/10.1016/j.orgdyn.2020.10.0802>

Newman, S. A., & Ford, R. C. (2021). Five steps to leading your team in the virtual COVID-19 workplace. *Organizational Dynamics*, 50(1), 100802. <https://doi.org/10.1016/j.orgdyn.2020.10.0802>

Neufeld, D. J., & Fang, Y. (2005). Individual, social and situational determinants of Telecommuter Productivity. *Information & Management*, 42(7), 1037–1049. <https://doi.org/10.1016/j.im.2004.12.001>

Nilles, J. (1975). Telecommunications and organizational decentralization. *IEEE Transactions on Communications*, 23(10), 1142–1147. <https://doi.org/10.1109/tcom.1975.1092687>

Nilles, J. M. (1988). Traffic reduction by telecommuting: A status review and selected bibliography. *Transportation Research Part A: General*, 22(4), 301–317. [https://doi.org/10.1016/0191-2607\(88\)90008-8](https://doi.org/10.1016/0191-2607(88)90008-8)

Postmes, T., Spears, R. & Lea, M. (2000) The formation of group norms in computer mediated communication. *Human Communication Research*, 26, 341–371.

Prosser, S. (2010). Opportunities and tensions of servant leadership. *Servant Leadership*, 25–38. [https://doi.org/10.1057/9780230299184\\_3](https://doi.org/10.1057/9780230299184_3)

Putnam, L. L., Fairhurst, G. T., & Banghart, S. (2016). Contradictions, dialectics, and paradoxes in organizations: A constitutive approach. *Academy of Management Annals*, 10(1), 65–171. <https://doi.org/10.5465/19416520.2016.1162421>

Rivkin, W., Moser, K. S., Diestel, S. & Alshaik, I. (2020). Self-Control and Self-Regulation as Mechanisms Linking Remote Communication to Employee Well-Being during the Covid-19 Pandemic. *Academy of Management Proceedings 2020: Virtual Annual Meeting*. <http://obweb.org/covid-19-index/covid-plenary-gallery>

Rivkin, W., Moser, K. S., Diestel, S. & Alshaik, I. (2023). *The Benefits and Costs of Virtual Meetings for Employee Performance, Wellbeing and Work-Family-Conflict in the Work- and Home Domain. Journal of Vocational Behavior (currently under 2<sup>nd</sup> review)*.

Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly*, 17(6), 617–633. <https://doi.org/10.1016/j.lequa.2006.10.005>

Rosett, C. M., & Hagerty, A. (2022). *Introducing HR analytics with Machine Learning: Empowering practitioners, psychologists, and ... organizations*. Springer.

Rovelli, P., & Curnis, C. (2021). The perks of narcissism: Behaving like a star speeds up career advancement to the CEO position. *The Leadership Quarterly*, 32(3), 101489. <https://doi.org/10.1016/j.lequa.2020.101489>

Schyns, B., Lagowska, U., & Braun, S. (2022). Me, me, ME. *Zeitschrift Für Psychologie*, 230(4), 330–334. <https://doi.org/10.1027/2151-2604/a000504>

Schyns, B., Braun, S. H., & Xia, Y. (Emma). (2023). What motivates narcissistic individuals to lead? the role of identity across cultures. *Personality and Individual Differences*, 206, 112107. <https://doi.org/10.1016/j.paid.2023.112107>

Sendjaya, S., & Pekerti, A. (2010). Servant leadership as antecedent of trust in organizations. *Leadership & Organization Development Journal*, 31(7), 643–663. <https://doi.org/10.1108/01437731011079673>

Shionoya, Y. (2004). A reconciliation of the liberal and communitarian debate in the light of the Methodenstreit. *Studies in Economic Ethics and Philosophy*, 353–376. [https://doi.org/10.1007/978-3-662-10347-0\\_16](https://doi.org/10.1007/978-3-662-10347-0_16)

Spears, L. C., & Lawrence, M. (2002). *Focus on leadership: Servant-leadership for the twenty-First Century*. John Wiley & Sons.

Spears, R., Postmes, T., Lea, M., & Watt, S. E. (2001). A SIDE view of social influence. In J. P. Forgas & K. D. Williams (Eds.), *Social influence. Direct and indirect processes* (pp. 331–350). Psychology Press: Philadelphia, PA

Sproull, L. & Kiesler, S. (1986). Reducing social-context cues – electronic mail in organizational communication. *Management Science*, 32, 1492–1512.

Steyrer, J. (2013). Addendum: Stigma, charisma, and the narcissistic personality: Ten Years on. *Transformational and Charismatic Leadership: The Road Ahead 10th Anniversary Edition*, 293–297. <https://doi.org/10.1108/s1479-357120130000005022>

Tagscherer, F., & Carbon, C.-C. (2023). Leadership for successful digitalization: A literature review on companies' internal and external aspects of digitalization. *Sustainable Technology and Entrepreneurship*, 2(2), 100039. <https://doi.org/10.1016/j.stae.2023.100039>

Todorova, G., Argote, L., & Reagans, R. (2008). Working alone or together? individual motivation, group identification and the development of TMS. *Academy of Management Proceedings*, 2008(1), 1–6. <https://doi.org/10.5465/ambpp.2008.33725598>

Todorova, G., Argote, L., & Reagans, R. (2008). Working alone or together? individual motivation, group identification and the development of TMS. *Academy of Management Proceedings*, 2008(1), 1–6. <https://doi.org/10.5465/ambpp.2008.33725598>

Tursunbayeva, A., Pagliari, C., Di Lauro, S., & Antonelli, G. (2021). The ethics of people analytics: Risks, opportunities and recommendations. *Personnel Review*, 51(3), 900–921. <https://doi.org/10.1108/pr-12-2019-0680>

Twenge, J. M., & Campbell, W. K. (2013). *The narcissism epidemic: Living in the age of entitlement*. Atria Paperback.

Twenge, J., Campbell, W. K. (2010). *The Narcissism Epidemic: Living in the Age of Entitlement*. New York: Atria Publishing Group. ISBN 978–1416575993.

Vater, A., Moritz, S., & Roepke, S. (2018). Does a narcissism epidemic exist in modern western societies? comparing narcissism and self-esteem in East and West Germany. *PLOS ONE*, 13(1). <https://doi.org/10.1371/journal.pone.0188287>

von Krogh, G., Nonaka, I., Rechsteiner, L. (2012). Leadership in Organizational Knowledge Creation: A Review and Framework, *Journal of Management Studies*, Wiley Blackwell, vol. 49(1), 240–277

Waddell, J., & Patterson, K. (2018). The servant leadership pin: Bursting the generational bubble. *Practicing Servant Leadership*, 211–230. [https://doi.org/10.1007/978-3-319-75644-8\\_12](https://doi.org/10.1007/978-3-319-75644-8_12)

Weibel, A., Den Hartog, D.N., Gillespie, N., Searle, R., Six, F. and Skinner, D. (2016), How Do Controls Impact Employee Trust in the Employer?. *Human Resource Management*, 55: 437–462. <https://doi.org/10.1002/hrm.21733>

Weibel, A., Schafheitle, S. and van der Werff, L. (2023), Smart Tech is all Around us – Bridging Employee Vulnerability with Organizational Active Trust-Building. *J. Manage. Stud.*. <https://doi.org/10.1111/joms.12940>

Wong, P. T., Page, D., & Cheung, T. C. (2023). A self-transcendence model of servant leadership. *The Palgrave Handbook of Servant Leadership*, 997–1022. [https://doi.org/10.1007/978-3-031-01323-2\\_58](https://doi.org/10.1007/978-3-031-01323-2_58)

Yao, Q. (Missy), Baker, L. T., & Lohrke, F. T. (2022). Building and sustaining trust in remote work by platform-dependent entrepreneurs on digital labor platforms: Toward an integrative framework. *Journal of Business Research*, 149, 327–339. <https://doi.org/10.1016/j.jbusres.2022.05.046>

Young, S. M., Du, F., Dworkis, K. K., & Olsen, K. J. (2015). It's all about all of us: The rise of narcissism and its implications for Management Control System Research. *Journal of Management Accounting Research*, 28(1), 39–55. <https://doi.org/10.2308/jmar-51024>

Ziek, P. and Smulowitz, S. (2014), “The impact of emergent virtual leadership competencies on team effectiveness”, *Leadership & Organization Development Journal*, Vol. 35 No. 2, pp. 106–120. <https://doi.org/10.1108/LODJ-03-2012-0043>

**Stefan Güldenbergs** is Full Professor and Academic Director Graduate School at EHL Hospitality Business School, Lausanne, Switzerland.

*Address:* EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Route de Berne 301, 1000 Lausanne, 25, Switzerland, Email: stefan.guldenberg@ehl.ch

**Jan G. Langhof** is an Expert in Digital Leadership and Automated Coaching working for the software company Lemin GmbH.

*Address:* Lemin GmbH, Rochusplatz 1; 50827 Köln, Germany; Email: jan.langhof@lemin.ai

**Karin S. Moser** is Rector and Full Professor of Organisational Behaviour at UniDistance Suisse, Brig, Switzerland.

*Address:* UniDistance Suisse, Schinerstrasse 18, 3900 Brig, Switzerland, Email: karin.moser@unidistance.ch