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Dual edge: exploring technological affordances and constraints of video technology in e-leadership

Jonna Koponen and Lotta Salin
UEF Business School, University of Eastern Finland, Kuopio, Finland, and
Laura Cortellazzo
Venice School of Management, Ca' Foscari University of Venice, Venice, Italy

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Abstract

Purpose – Effective leadership in digitalized contexts requires managers to increasingly rely on digital communication tools, such as video technology, in leading remote workers. However, existing research provides a limited understanding of the complex relationship between leaders and video technology. To address this gap, this study aims to explore how top managers lead remote work through the lens of technological affordances.
Design/methodology/approach – Constructivist grounded theory is applied to understand how top managers use video technology in e-leadership from an affordance perspective. Data were collected through semi-structured interviews with 33 top managers from the information technology sector and analyzed using initial, focused and theoretical coding.
Findings – Top managers use video technology as both an informative and interactive tool. As an informative tool, it provides affordances. When top managers apply video technology as an interactive tool, they perceive both its affordances and constraints, relating to five tensions: flexibility–inflexibility, social connectedness–social disconnectedness, engagement–disengagement, sharing formal information–concealing informal information and equality–inequality.
Originality/value – This study contributes to research on e-leadership by offering a perspective through the lens of affordances. Additionally, it advances the research on technology affordances by identifying the unique affordances and constraints of video technology. Based on these affordances, constraints, and tensions between them, a theoretical framework of video technology as an informative or an interactive tool in e-leadership is presented.

Keywords Video technology, Affordances, e-leadership, Remote work, ICT
Paper type Research article

1. Introduction

Digital technologies and the expansion of remote work resulting from the COVID-19 pandemic (Van Zoonen *et al.*, 2024) are revolutionizing the traditional workplace and redefining how work is managed within organizations (Duan *et al.*, 2023). Remote work denotes "a form of work that employees perform outside the physical premises of the organization by utilizing communication technology" (Jämsen *et al.*, 2022, p. 2). Increased remote work has necessitated leaders' effective use of information and communication technologies (ICTs) to coordinate work and interact with employees, colleagues, and customers (Cortellazzo *et al.*, 2019; Van Wart *et al.*, 2019). E-leadership is defined as ICTs' integration in leadership social influence processes (Avolio *et al.*, 2000; Wang *et al.*, 2023), which include leading dispersed organizations and remote/virtual teams, adopting ICT-mediated communication, or integrating it with the face-to-face type (Salin and Koponen, 2023).

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However, some examples of poor e-leadership across industries relate to damaged communication, disrupted information flow, low motivation, and a lack of interpersonal trust (Van Wart *et al.*, 2017). Extant research has mainly investigated this phenomenon by focusing on either the leaders' communication ability (e.g. Elyousfi *et al.*, 2021) or the quality and quantity of communication (e.g. van Zoonen *et al.*, 2024). Research regarding leaders' communication skills emphasize their importance in models of e-leadership (e.g. Van Wart *et al.*, 2019; Wang *et al.*, 2023). This view tends to be leader-centric, relegating technology to having a moderating influence on general leadership processes (Schmidt, 2014). Studies on the quality and quantity of communication show mixed findings about trust creation and the prediction of team performance (e.g. Kayworth and Leidner, 2002; Van Zoonen *et al.*, 2024) and have been criticized for providing a limited understanding of the complex interaction between leaders and technology (Landers and Marin, 2021). To address this gap, we draw on the theory of affordances (Treem and Leonardi, 2013) to advance a more nuanced understanding of e-leadership emerging from its interplay with video technology in particular. This perspective shifts the focus from a leader-centric approach to one that considers how technology shapes the social processes of e-leadership (Bauwens and Cortellazzo, 2025; DeSanctis and Poole, 1994). Following Majchrzak and Markus (2012) definition, we conceive affordances and constraints as relational concepts, shifting the analytical focus from technological structural features to the affordances of technology (Wang *et al.*, 2018). Regarding an ongoing debate in the information systems (IS) field, we argue against the perception of ICTs in deterministic terms (Carlson and Zmud, 1999; Ngwenyama and Lee, 1997). We support Beane and Orlikowski's (2015) view that technologies and human users mutually shape and complement each other in this process.

The affordance perspective posits that different technologies offer distinct possibilities for action and that individuals vary in the extent to which they perceive and act on these possibilities (Strong *et al.*, 2014). This theoretical lens thus lays out a foundation for understanding the variability and contradictions that can arise in the practice of e-leadership. To further explore these dynamics, we draw on dialectical tension theory (see Gibbs *et al.*, 2010), which allows examining how top managers simultaneously encounter video technology as a source of both enablement and limitation—that is, embodying affordances and constraints. While the affordance literature has predominantly emphasized technology's possibilities for action (e.g. Gibbs *et al.*, 2013), other studies have highlighted leadership in virtual settings as shaped by multiple technology-dependent tensions (e.g. Purvanova and Kenda, 2018). We thus assume that technology affordances may both enhance and hinder e-leadership behaviors in remote work settings.

Given the centrality and pervasiveness of video technology in organizational and managerial communication (McKinsey Global Institute, 2023; Salin and Koponen, 2024), as well as the limited attempts to understand how leadership engages with different ICT tools (Landers and Marin, 2021), we investigate top managers' use of video technology in e-leadership from an affordance and dialectical tension perspective. We address the following research questions (RQs):

RQ1. How do top managers use video technology for e-leadership?

RQ2. How do top managers perceive affordances and constraints of video technology for e-leadership?

RQ3. What are the dialectical tensions between affordances and constraints of video technology for e-leadership?

To answer these questions, we employed qualitative research based on semi-structured interviews with 33 top managers from the information technology IT sector and an analytical strategy rooted in constructivist grounded theory (GT). We focus on top managers, because as strategic decision makers they can influence the whole company or organization (Campion *et al.*, 2020). They pursue various interaction goals in their roles and handle

communication about the corporate/organizational mission, vision, and strategy and workplace changes.

Our study contributes to existing research in three ways. First, we provide a new lens through which e-leadership can be explored, answering recent calls to adopt the theory of affordances (e.g. Bauwens and Cortellazzo, 2025; Schmidt and Van Dellen, 2022). We overcome the tendency to investigate e-leadership in terms of traditional leadership behaviors applied to a different setting by examining the interrelation between e-leaders and technology. Second, we enrich current research by combining the theory of affordances with that of dialectical tensions. Given the unique tensions arising from virtuality (Weber *et al.*, 2022), this lens allows us to better capture leaders' apparently diverse or inconsistent uses of technology. Third, we advance the general investigation of digital technology affordances in remote collaboration (Duan *et al.*, 2023; Mitchell, 2023), which so far has not allowed disentangling the unique affordances provided by each communication tool (Landers and Marin, 2021).

From a practical standpoint, we stress that the ways in which e-leaders perceive technological possibilities for action may strongly affect their ability to influence followers, build trust and interpersonal relationships, and increase employee engagement (Schmidt and Van Dellen, 2022). Based on our analysis, we offer e-leaders valuable guidance in strategically balancing the affordances and constraints of video technology.

In the remainder of this paper, we first describe this study's theoretical background followed by the process of our data collection and analysis. We then explain the affordances and constraints emerging from our analysis. Finally, we provide implications for research and practice and highlight limitations to be addressed in future studies.

2. Theoretical background

We first discuss the latest advancements in affordance studies in IS literature. Then, we provide an overview of the role of video technology in e-leadership communication and clarify the relevance of affordance theory for understanding technology use in e-leadership. Finally, we explain dialectical tensions and competing affordances in e-leadership.

2.1 Affordance theory and its latest advancements

Originally introduced by Gibson (1979) in ecological psychology, the concept of affordance describes "functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object" (Hutchby, 2001, p. 444). A decade after its introduction, Norman (1998) adapted the affordance concept to the IS field, where it provided a lens to analyze how users interacted with IS. Since then, the affordance theory has been widely used to examine how goal-oriented actors (e.g. leaders) interact with IS (e.g. enterprise social media (ESM)) to achieve their aims (Strong *et al.*, 2014). Recent advancements in the field have evolved around various contexts. An emerging stream regards the affordances of artificial intelligence (AI) and their relationship to AI adoption and resistance in organizational settings (Zhou *et al.*, 2025; Yang *et al.*, 2024). While some scholars highlight how augmentative AI affordances can be dynamically integrated with human capabilities (Jarrahi *et al.*, 2025), others emphasize that these affordances can also threaten individuals' identity (Zhou *et al.*, 2025). Another prominent line of inquiry has advanced the understanding of ESM affordances. Findings show a significant influence on knowledge sharing (e.g. Laitinen and Sivunen, 2021; Ren and Sun, 2024), network ties and employee agility (Chen *et al.*, 2020; Sun *et al.*, 2025; Talwar *et al.*, 2023). Research on social media affordances more broadly has explored both their positive impacts, such as fostering prosocial disclosure and behavior (Tan *et al.*, 2024; Chen *et al.*, 2024), enhancing social support, and promoting health-related behaviours (Lin and Kishore, 2021), and their negative consequences, including the spread of fake news (Islam *et al.*, 2020), increased polarization (Iandoli *et al.*, 2021), and the reinforcement of conspiracy beliefs (Abdalla Mikhaeil and

Baskerville, 2024). A recurring topic of inquiry among affordances studies concerns gamification and its role in shaping people's behavior and engagement. For example, recent studies examine how gamification affordances in e-commerce influence customers' perceived value and recommendation acceptance (Jia and Yu, 2025), as well as behavioral outcomes (Du *et al.*, 2025). In particular, studies highlight the gamification's role in driving engagement with social issues, showing that gamified virtual corporate social responsibility initiatives can enhance user engagement (Lan *et al.*, 2024; Zhang *et al.*, 2025). More recently, scholars have turned attention to the affordances of chatbots, by looking at the affordances and disaffordances of chatbots (Lin *et al.*, 2022) and investigating how these affordances are linked to perceived work performance (Lin *et al.*, 2024). Lin and colleagues explore chatbots from an augmentation perspective and identify three types of chatbot affordances that provide employees with informational and emotional support and improve perceived work performance. Similarly, Vassilakopoulou *et al.* (2024) explore human–AI interactions between service agents and chatbots, identifying affordances that can strengthen hybrid collaboration.

Despite the diversity of technological contexts investigated, studies focusing on organizational settings have predominantly examined issues related to knowledge management, work augmentation, and employee agility or innovative behaviors. However, they often overlook how technology affordances influence work dynamics related to guidance, coordination, and control. Few exceptions look at technology's role in constraining and enabling employees and supervisors to enact control (Sesay *et al.*, 2024), and at technology affordances that augment humans in coordination enactment (Claggett and Karahanna, 2025). Within this discourse, our study examines the technological affordances and constraints in e-leadership, specifically focusing on video technology as a way to collaborate and coordinate the team.

2.2 Role of video technology in e-leadership communication

Video technology primarily transmits auditory and visual cues, allowing interaction partners to meet synchronously online (Bharadwaj and Shipley, 2020). Typical video applications include Skype, Microsoft Teams, Zoom, and Google Meet. Although video technology is not new, it has become a central element of e-leadership communication in recent years (Koponen *et al.*, 2024; McKinsey Global Institute, 2023; Salin and Koponen, 2024). Scholars started examining video technology's role in organizational and managerial communication in the 1990s (O'Conaill *et al.*, 1993; Rosenberg, 2002), when remote work, mobile work, and distributed workforces were still emerging trends. Early research investigated how video technology could support collaboration across geographical distances, with emphasis on visual cues, which were unavailable in other digital communication technologies (Dennis and Kinney, 1998; O'Conaill *et al.*, 1993; Rosenberg, 2002). The rise of hybrid and remote work during the COVID-19 pandemic, combined with the need for rich communication technologies, led to the widespread use of video platforms such as Microsoft Teams, Zoom, and Google Meet for various work tasks (Salin and Koponen, 2024; Vidolov, 2022).

Compared to other digital communication channels, such as email, instant messaging, or audio calls, video technologies are considered rich communication media (Daft and Lengel, 1986). According to media richness theory, communication channels differ in their capacity to convey rich information within a given time (Dennis and Kinney, 1998). Video allows instant feedback, transmits multiple verbal and nonverbal cues (e.g. facial expressions, eye contact, gestures), enables natural spoken language, and supports a high degree of personalness (Dennis and Kinney, 1998). In contrast, communication channels such as email and instant messaging are text-based and asynchronous, lacking nonverbal cues and real-time interaction (Daft and Lengel, 1986). Video communication enables synchronous exchange and enhances social presence, giving individuals the experience of being with another person at a remote location (Sallnäs *et al.*, 2000). This property of video technology seems particularly relevant

for e-leaders' complex activities (Koponen and Rytsy, 2020) and the potential effect on people's perception of social connection (Queiroz *et al.*, 2023). However, existing research on video technologies has not examined the affordances (or constraints) of such technology in e-leadership. Affordances are the focus of this study because it highlights how video technology shapes e-leadership practices. By examining the perceived possibilities and constraints of video technology, the study explains how leaders navigate, leverage, and sometimes struggle with ICTs to influence, build trust, and engage employees in remote work settings.

2.3 Affordance theory and e-leadership

"The concept of technology affordance refers to an action potential, that is, to what an individual or organization with a particular purpose can do with a technology or information system; technology constraint refers to ways in which an individual or organization can be held back from accomplishing a particular goal when using a technology or system" (Majchrzak and Markus, 2012, p. 832). For the sake of simplicity and readability, we use the terms *technological affordances* and *affordances* interchangeably in this article, as is often done in the current IS literature (Giamporcaro and Kuk, 2024; Gong *et al.*, 2024). An affordance perspective on technology asserts that affordances are neither solely attributes of individuals nor inherent properties of technology but emerge from the relational interplay between individuals and the materiality of technological artifacts (Leonardi and Vaast, 2017).

Even when adopting the same technology (e.g. video technology), managers vastly differ in their ways of leading remotely. While in most studies on e-leadership, these individual differences are explained by observing leaders' features and abilities (i.e. communication ability, quality and quantity of communication, digital skills) (Bauwens and Cortellazzo, 2025), an affordance perspective is useful for examining previously unrecognized roles of technology (Majchrzak and Markus, 2012). Technologies possess material features that transcend their context of use. When individuals perceive those features as enabling them to perform certain actions, a technological affordance is created (Leonardi and Vaast, 2017). Individuals vary in the extent to which they view and act on these possibilities (Strong *et al.*, 2014), identifying a technology as either offering affordances for or imposing constraints on action (Leonardi, 2011). How leaders perceive affordances and constraints of technology may highly influence their use of it and ultimately their ability to ensure engagement, social connectedness, task progress, and positive workplace relationships (Strong *et al.*, 2014).

Most investigations of technology affordances in organizational leadership do not relate to a remote work context. For instance, some studies have examined leaders' perceptions of technology for public engagement and corporate communication (Zhou *et al.*, 2024) or the perceived affordances of wikis for knowledge management (Arazy and Gellatly, 2013). Other studies have addressed the affordances of technology in a remote work environment or in virtual teams according to the team members' perspectives. For example, Henry *et al.* (2025) have explored how virtual teams use enterprise social networks to provide mutual social support within the team and how the visibility of these interaction patterns influences team functioning. Simsek Caglar *et al.* (2024) have shown the experience of transparency in remote work teams using online collaborative whiteboards as an outcome of the team members' or organizational choices, as well as of sociomaterial entanglements among the users, the tool, and their organization. Virtual collaboration in general has recently been analyzed from an affordance perspective (Mitchell, 2023). In her research based on data from graduate students, Mitchell identifies four affordances for virtual collaboration: flexibility and productivity, social connectedness and organizational culture, technology support, and leadership and management. Despite the relevance of these studies, they only partially inform our discussion because affordances vary by user viewpoint (Faraj and Azad, 2012). A smaller set of empirical studies has tackled the leadership perspective (see Table 1). Gilstrap (2019) examines what kind of affordances mobile technology offers for team leaders. In examining virtual workspace

Table 1. Overview of empirical studies on affordances and leadership in a remote work setting

Article	Technology	Affordances	Leadership implications	Context
Arvedsen and Hassert (2020)	PowerPoint, Kanban board	Affordances of talk and ICT objects	Leadership is collaboratively achieved in mundane meeting discussions by mobilizing several multimodal resources	Companies in the IT, engineering, oil and gas, consulting, and food and beverage industries
Brotheridge *et al.* (2015)	Computer-mediated communication (e.g. email, instant messaging, other digital media)	Communication media's affordances	Affordances of computer-mediated communication influence status differences between leaders and followers	Rescue and peacekeeping agency
Gilstrap (2019)	Mobile technologies	Mobile affordances for leaders	Mobile technologies afford team leaders' combination of physical and non-physical presence, managing multiple time-based interactions, and improving their ability to act or lead while on the move	First-, second-, and third-sector organizations
Malhotra and Majchrzak (2012)	Virtual workspace tools	Affordances of virtual workspaces	Virtual workplace affordances enhance situational awareness. Affordances influence satisfaction with knowledge coordination in virtual teams	Companies from service and manufacturing industries
Matikainen *et al.* (2023)	Unspecified	Knowledge-related affordances	Leaders identify knowledge-related challenges and opportunities during remote work. They manage tensions concerning knowledge codification, silos, and creation	Higher education institutions
Willermark and Islind (2023)	Unspecified	Virtual school affordances	Virtual school affordances enable school leaders to focus on core activities, implement distributed leadership and one-on-one interaction with staff, and provide more structure and clarity in decision-making and outreach activities	Schools

Source(s): Authors' own creation

features and affordances in the context of knowledge sharing in distributed teams, Malhotra and Majchrzak (2012) identify two affordances—monitoring of knowledge evolution and virtual co-presence creation—that influence members' satisfaction with their leaders' knowledge coordination. In doing so, they attempt to understand the system of people, processes, and knowledge, in conjunction with technology. Likewise, in studying knowledge management practices, Matikainen *et al.* (2023) discuss the affordances and constraints that leaders in higher education institutions experienced during remote work, identifying tensions between knowledge-related demands.

The mentioned contributions focus on a set of multiple technologies used in remote work; others employ PowerPoint and collaborative boards (Arvedsen and Hassert, 2020) and emails (Brotheridge *et al.*, 2015), neglecting richer communication tools, such as video technology. Recent research has highlighted the relevance of video technology for various aims, from routine information sharing to relationship building and engaging in interactive two-way conversations (Bleakley *et al.*, 2022). Vidolov (2022) has examined the affective affordances of video technology, conceptualizing technology as constituting emotional experiences in virtual environments (Fineman *et al.*, 2007). The Vidolov's study demonstrates how such affordances shape individuals' orientations toward particular action possibilities when navigating anxiety-inducing interactions. This finding indicates that, in addition to functional affordances (Waizenegger *et al.*, 2020), video technology offers social affordances that facilitate social interaction, collective action, and social transformation (Treem and Leonardi, 2013), which have received relatively limited attention in the literature (Hacker *et al.*, 2020).

2.4 Dialectical tensions

Affordances can vary by context, even if the technology itself remains unchanged (Hutchby, 2001). Technology may be regarded as either enabling or constraining actions (Leonardi, 2011), leading to contradictory perceptions and creating tensions (Gibbs *et al.*, 2010). Gibbs *et al.* (2013, p. 105) define tension as "an opposition between two conflicting poles, such that both poles are necessary but in contradiction with one another." To focus on tensions between affordances and constraints, we draw on the theory of relational dialectics (Baxter and Braithwaite, 2008). Rooted in dialogism (Bakhtin, 1981), this theory has been adapted when investigating and explaining communicative tensions in interpersonal relationships (Baxter and Braithwaite, 2008) and in organizations (Gibbs, 2009; Gibbs *et al.*, 2013). Organizational tensions have been found helpful in explaining how contradictions arise when people face competing interests and goals (Gibbs *et al.*, 2010). For instance, remote (multilocation) work can cause contradictions and tensions in workplace interactions (Putnam *et al.*, 2014). Some Finnish employees who switched entirely to remote work during the COVID-19 pandemic considered such work a challenge for relationship-centered communication; others regarded it as an opportunity, while the rest felt ambivalent (Jämsen *et al.*, 2022).

Previous studies have highlighted how unique tensions arise from the use of ICTs in organizations (Weber *et al.*, 2022) and in remote interaction (Purvanova and Kenda, 2018). Purvanova and Kenda (2018) have identified a *touch* tension in using technology-mediated communication, which relates to the fact that limiting nonverbal cues can hinder interpersonal familiarity (Purvanova, 2013) but can also reduce biases affecting face-to-face interactions, fostering greater inclusion in diverse teams (Koles and Nagy, 2014). The *data* tension considers that the volume of information generated by technology can enhance decision-making but also burden virtual team members. The *task* tension reflects how technology makes work more exhausting—due to multitasking and work–life conflict—yet more motivating by providing skill development and learning opportunities (Purvanova and Kenda, 2018).

As recently discussed by Matikainen *et al.* (2023), the tensions inherent to virtuality may also emerge from the perceptions of affordances and constraints since technology can be regarded as simultaneously enabling and restricting action, depending on the context and the

viewer (Leonardi, 2011). Perceived tensions can lead to contradictory or inconsistent use of technology. If approaching the tension passively, leaders may adopt defensive strategies aimed at avoiding or bypassing it (Jarzabkowski *et al.*, 2013), which may lead to paralysis (Purvanova and Kenda, 2018) or restricted use of the technological tool. If approaching the tension actively, leaders may adopt synergistic responses (Jarzabkowski *et al.*, 2013) that imply finding a balance between the perceived affordances and constraints of the technology.

3. Method

3.1 Data collection

In this qualitative study, we follow the methodology of constructivist GT (see Charmaz, 2006), derived from the GT originally developed by Glaser and Strauss (1967). In constructivist GT, the central idea is to focus on how the research participants construct meaning in relation to the area of inquiry (Chun Tie *et al.*, 2019; Mills *et al.*, 2006). In line with constructivist GT, our ontological position aligns with relativism, recognizing the multiple realities in which individuals' constructions may be viewed as more or less sophisticated (Guba and Lincoln, 1994; Mills *et al.*, 2006). Our epistemological stance is grounded in subjectivism (Guba and Lincoln, 1994). We investigate top managers' subjective meanings in the e-leadership context and maintain that reality is comprehended through individuals' subjective perceptions and interpretations (Croucher and Cronn-Mills, 2015). As researchers, we acknowledge that our understanding is co-constructed through interactions between ourselves and the study participants (Mills *et al.*, 2006).

We collected initial data through purposeful sampling (Chun Tie *et al.*, 2019) by organizing three interviews with top managers in IT companies, leveraging the personal networks of the first and the second authors. In these interviews, we aimed to verify the protocol presented in Appendix. These three top managers were members of the executive boards of their respective IT companies, had at least ten years' leadership experience, and had at least six years' experience in leading people remotely (see Interviewees 1, 3, and 4 in Table 3). We chose the IT industry as it is accustomed to remote work, virtual collaboration, and technology-mediated communication (Tong *et al.*, 2014). We concentrated on top managers because they are influential strategic decision-makers in their organizations (Campion *et al.*, 2020), accountable for putting their organizational communication strategies and policies into practice, and responsible for establishing a balance between digital and face-to-face communications (Salin and Koponen, 2024). The data were collected in Finland, characterized by its high prevalence of remote work relative to other European countries (Aksoy *et al.*, 2025), making it a particularly suitable setting for examining e-leadership and related phenomena.

After verifying the interview protocol, we gathered more data from top managers in the IT industry. We further specified our sampling criteria: the interviewee must (1) be an executive board member of the company (e.g. chief executive officer, vice president, human resource manager, communication manager), (2) have at least two years' experience in leading remotely, (3) have at least five years' experience in leadership, (4) work in the IT industry, and (5) have experience in using video technology for remote leadership. (6) The company should allow remote and/or hybrid work. Of the 134 top managers from 24 large IT companies (with over 250 employees), who were contacted via their personal emails, 30 agreed to participate in expert interviews (Croucher and Cronn-Mills, 2015). Since the interviews ($n = 3$) conducted at the initial stage of our study had rich content and provided answers to our RQs, we added the interview recordings, transcripts, and summaries to the dataset collected at the second stage ($n = 30$). Consequently, our final dataset comprised key information from 33 top managers representing 17 large IT companies (see Table 2). All companies allowed either fully or mostly remote work.

The expert interviews were conducted online via Microsoft Teams or Zoom from October 2021 to February 2022, ranging from 42 to 58 min in duration. During the data collection, the

Table 2. Overview of interviewees (top managers)

Firm	Employees in Finland (employees in total)	Interviewee number	Job title	Education	Gender	Age	Leadership experience (years)	E-leadership experience (years)	Length of interview (minutes)
Alpha	500 (1,600)	1	General Counsel	Master of Laws	Female	49	12	12	44
		2	Sourcing Manager	Bachelor of Computing Science	Female	39	14	6	49
Beta	3,500 (90,000)	3	Vice President, Consulting	Master of Computer Science	Female	51	14	10	54
Gamma	100 (110,000)	4	Country Manager, Head of Services, Finland	Master of Science in Business Administration	Male	39	10	10	43
Delta	3,000 (5,800)	5	Executive Vice President (EVP)	Master of Laws	Male	47	15	10	54
		6	EVP, Consumer Business	Master of Business Administration (MBA)	Male	57	25	20	45
		7	HR Director	Master of Science, Psychology and MBA	Female	55	25	20	54
Epsilon	350 (700)	8	Head of Human Care	Master of Science in Engineering	Male	39	13	6	42
Zeta	1,600 (1,600)	9	Senior Vice President, Consumer Business	Master of Science, Marketing	Male	55	28	6	51
		10	HR Director	Master of Executive Business Administration (EMBA), Management and Leadership	Male	47	14	10	50
Eta	1,300 (1,300)	11	Chief Executive Officer	Bachelor of Business Administration	Male	53	30	15	61
		12	HR Director	Doctor of Education	Female	50	20	5	46
		13	Financial Director	MBA	Female	44	15	2	44
Theta	400 (500)	14	Managing Director, Finland	MBA, Marketing and Management	Male	60	15	5	45
		15	Customer Operations Director	Master of Information Systems Science	Female	47	20	4	52
		16	HR Business Manager	MBA	Female	42	7.5	2.5	50

(*continued*)

Table 2. Continued

Firm	Employees in Finland (employees in total)	Interviewee number	Job title	Education	Gender	Age	Leadership experience (years)	E-leadership experience (years)	Length of interview (minutes)
Iota	4,000 (20,000)	17	Vice President, Consumer Business	MBA	Female	44	15	6	45
		18	Vice President, Head of Enterprise Business	Master of Science in Industrial Engineering and Management	Male	51	25	13	48
Kappa	1,800 (130,000)	19	Head of Finland Delivery Services	MBA	Male	60	15	15	58
		20	Head of Product	Master of Science in Economics	Male	43	13	7	52
Lambda	500 (220,000)	21	Chief Operating and Marketing Officer	MBA	Male	47	20	15	53
		22	Head of HR	Master of Arts in Intercultural Communication	Female	48	9	9	53
		23	Director, Partner Solutions	Master of Science in Engineering	Female	48	22	12	51
Myy	400 (14,000)	24	Senior Advisor	Master of Science in Industrial Engineering and Management	Male	49	15	15	50
		25	Director of People and Culture	MBA	Female	39	7	7	54
Nyy	300 (4,000)	26	Chief Operating Officer	EMBA	Male	45	20	10	44
		27	HR Director	MBA	Female	43	4.5	2.5	65
Ksii	1,200 (1,400)	28	Head of HR	Doctor of Science, Industrial Management	Female	47	12	7	53
Omikron	2,000 (700,000)	29	Country Managing Director, Finland	Master of Science in Information Technology	Male	49	18	14	49
		30	HR Lead	Master of Science, Information Networks	Female	42	6	6	52
		31	Marketing and Communications Lead	Master of Science in Economics and Business Administration, Marketing	Female	43	15	13	51
Pii	400 (900)	32	EVP, Data Platforms, Finland	Master of Science, Mathematics	Female	49	10	7	58
Rhoo	400 (400)	33	HR Director	Master of Laws	Female	44	20	3	45

Source(s): Authors' own creation

Table 3. Analysis framework

Initial coding with examples from the data	Name of initial code	Focused coding (affordances/ constraints)	Theoretical coding (tensions)
"As for the remote working practices, we have these regular video meetings, such as weekly meetings with the management team." (Iota_Interviewee 17)	Schedulability	Flexibility (16/33)*	Flexibility–Inflexibility
"One good thing is the efficiency . . . video meetings start with the press of a button and . . . end on time because there is usually another one about to begin." (Eta_Interviewee 12)	Time efficiency		
"Flexibility in calendars is gone. . . . a couple of video meetings went overtime. . . . this doesn't necessarily improve productivity. Instead, people get tired by the eighth video meeting." (Eta_ Interviewee 12)	Uncontrollability of time	Inflexibility (10/33)	
"We have a variety of virtual events, including lunches and coffee breaks with the team. We have had virtual after-work events, virtual team days, and virtual escape rooms." (Zeta_Interviewee 10)	Attending events	Social connectedness (20/33)	Social connectedness–Social disconnectedness
"Trust-building, and how to foster it, requires listening skills and the ability to ask people how they are doing [via video communication]. Building trust within my team [when working in digital environments] and fostering an open environment for discussion are the key themes I want to highlight." (Omikron_ Interviewee 31)	Building trust		
"In my team, we want to ensure that people get noticed and heard online. Every Wednesday, we have a half-hour virtual coffee break via Microsoft Teams video call. In virtual coffee meetings, we do not talk about work-related things at all, and we have agreed to keep our cameras on." (Beta_ Interviewee 3)	Interconnectivity		
"You (as a leader) have a certain amount of responsibility for the well-being of the people in your team and how they are doing. If you have not seen your team member on camera even once a year, you may start to wonder whether everything is going well." (Iota_Interviewee 18)	Restricting emotional support	Social disconnectedness (20/33)	
"We've observed that many tasks can be accomplished through [audiovisual communication]. However, what seems to suffer is trust-building, whether between individuals or in organizational change situations. In such cases, the limitations of video communication become apparent." (Xi_Interviewee 28)	Preventing trust-building		
"Before the COVID-19 pandemic . . .. Teams and their supervisors were in the same office, and we didn't have many remote workers. Each office had its own community, and our culture was based on physical presence. Then, COVID-19 took away what had been our strength." (Mu_Interviewee 25)	Weakening the sense of community		
"During video meetings, we solely focus on work-related topics, without delving into personal matters or individuals' moods, which represents a significant challenge." (Beta_Interviewee 3)	Restricting social talk		
"When discussing someone's career or addressing challenging topics, strong emotions often arise. When possible, such conversations should be conducted in person. I prefer to have at least the kick-off meetings face-to-face as it accelerates the process of achieving results." (Kappa_Interviewee 20)	Restricting nonverbal communication		

(*continued*)

Table 3. Continued

Initial coding with examples from the data	Name of initial code	Focused coding (affordances/ constraints)	Theoretical coding (tensions)
"Involving people in video meetings is important. Everyone should have some sort of speaking turn, a presentation, or something similar . . .. It is one way to approach [engaging people]." (Beta_Interviewee 3)	Involving people	Engagement (20/33)	Engagement–Disengagement
"Workshops or brainstorming sessions should ideally be conducted in person to maximize their potential. Even . . . via video call, with good audio and various collaborative tools available for innovation, there's still a sense of something missing." (Alpha_Interviewee 2)	Restricting innovation	Disengagement (12/33)	
". . . people use instant messaging in Teams quite a lot . . .. it is rude to chat and respond to . . . instant messages . . . because it distracts from focusing on the [video] meeting." (Eta_Interviewee 12)	Distracting concentration		
". . . there are quite a few companies where people don't keep their cameras on during video meetings. Because of that, people are even more likely to start doing their own thing and not be mentally present . . .." (Delta_Interviewee 6)	Causing social absence		
"If I look at how internal communication is handled here, we have lots of briefings and all-hands events organized via video in our culture. For instance, the top management team often has open question-and-answer sessions. We also have informal coffee meetings, formal info sessions, and even news broadcasts [all via video])." (Iota_Interviewee 17)	Informing employees	Sharing formal information (27/33)	Sharing formal information–Concealing informal information
"The important thing is information sharing, especially during these remote work times. The role of internal communication is extremely important. We have many briefings for larger groups via video at the company-wide level, and I hold an information session via video for my entire team every other week." (Delta_Interviewee 6)	Establishing information flow		
"The challenge is that you only receive information that is consciously communicated to you via video. You don't get informal information because you don't have encounters in hallways, cafes, or canteens where information is shared more widely and spontaneously." (Delta_Interviewee 6)	Restricted informal communication	Concealing informal information (10/33)	
"We became equal in the virtual world because previously, some people were in the office and some were not. Now we meet everyone . . . [on video calls], and it is such a positive thing." (Zeta_Interviewee 10)	Equalizing employees	Equality (8/33)	Equality–Inequality
"Video meetings can be quite unequal. Some individuals tend to dominate the conversation, while others remain quiet. For a leader, it's essential . . . to ensure that everyone has the opportunity to speak. However, it is challenging to ensure that all necessary comments, perspectives, ideas, and information are shared in the meeting." (Theta_Interviewee 14)	Amplifying employee communication style differences	Inequality (15/33)	
"We've observed a polarization among employees. Those who were already hard workers are now working even more, while those who tended to avoid their responsibilities are doing so even more now." (Pi_Interviewee 32)	Amplifying employee working style differences		

Note(s): The numbers refer to how many of the 33 top managers mention affordance/constraint in the interview

Source(s): Authors' own creation

two researchers exchanged their interpretations of the data and cross-checked their interpretations via ongoing discussion and constant comparison. Our data analysis is explained in detail in Section 3.2. We continued to interview the top managers until any new responses only confirmed the initial codes and conclusions drawn. After constant discussions between the two researchers, we concluded that we had reached data saturation (Aguinis and Solarino, 2019).

All interviews were recorded with the participants' permission and transcribed verbatim. Our created database contained the original interview recordings, transcripts, and summaries. Participation in this research was voluntary, and the interviewees did not receive incentives. They received an informed consent form via email, and they could withdraw from the research project any time. Their personal data were anonymized using pseudonyms (see Mills *et al.*, 2006), specifically Greek alphabets for the firm names and numbers for the interviewees. Table 2 provides an overview of the interviewees and their companies.

3.2 Data analysis and trustworthiness

In constructivist GT, the analysis process follows three main phases of coding: initial, focused, and theoretical (Charmaz, 2006). The analysis framework with the main steps is illustrated in Table 3.

First, the intention of **initial coding** is to "start the process of fracturing the data to compare incident to incident and to look for similarities and differences in beginning patterns in the data" (Chun Tie *et al.*, 2019, p. 4). In this phase, two researchers from the authors' team independently and systematically undertook initial coding of the data using Atlas.ti program. These two researchers inductively generated as many codes as possible related to the (non) possibilities for action (as described by the top managers when using video technology in leading remote workers), keeping the codes as similar to the data as possible (Charmaz, 2006; Chun Tie *et al.*, 2019). The two researchers noticed similarities and differences in the data. Their initial codes included schedulability, time efficiency, and uncontrollability of time. The names of the initial codes, with examples from the interview data, are presented in Table 3.

Second, the two researchers conducted **focused coding** by reviewing the initial codes and identifying which ones could be subsumed under other categories. During the focused analysis, the textual interpretations were compared and clarified with all three authors; again, we paid attention to similarities and differences across the entire data. In the first step of the analysis, as affordance theory assumes the actors' interaction with technology to achieve various aims (Strong *et al.*, 2014), we analyzed for which aims the e-leaders were using video technology. The two researchers discussed their initial interpretations, noting that the top managers used video technology for different purposes: (1) as an interactive tool for one-on-one or small-team meetings and (2) as an informative tool for live meetings or sharing of video recordings that informed people within the organization. These results are reported at the beginning of the Findings section.

In the second step, we formed tentative theoretical categories, drawing on affordance theory (Hutchby, 2001; Treem and Leonardi, 2013). We labeled as affordances those factors and conditions that the interviewees identified as opportunities and enablers provided by video technology use in e-leadership. We labeled as constraints those factors and conditions that the interviewees identified as obstacles or problems. For example, schedulability and time efficiency were named flexibility affordance, while uncontrollability of time was called inflexibility constraint. All affordances and constraints are presented in Table 3. We also calculated the number of interviewees (out of the 33) who referred to each affordance and constraint—presented in parentheses under the Focused coding column. As suggested by Birks and Mills (2015), theoretical saturation was reached when our data analysis did not provide new or additional material to the existing categories.

In the third phase of coding, with all three researchers, we continued our analysis toward **theoretical coding** (Chun Tie *et al.*, 2019). In comparing the affordances and constraints, we

noticed that they represented two opposite poles of the same construct. For example, e-leaders perceived video technology as a tool that simultaneously stimulated and disincentivized employee engagement. To make sense of such contradictions, we drew on the theory of dialectical tensions, as defined by Gibbs *et al.* (2013, p. 105; see Section 2.3). Tensions (Gibbs, 2009; Gibbs *et al.*, 2013) seemed appropriate for explaining the contradictions related to e-leaders' video technology perceptions, accounting for the simultaneous presence of perceived affordances and constraints. In total, we identified five main tensions, which are shown in Table 3 and further explained in the Findings section.

We ensured the trustworthiness of our study by following quality criteria for constructivist GT (Charmaz and Thornberg, 2021; Eriksson and Kovalainen, 2016). In research grounded in relativist ontology and subjectivist epistemology, trustworthiness—evaluated through credibility, transferability, dependability, and confirmability—defines the quality of inquiry (Eriksson and Kovalainen, 2016, p. 308). To enhance **credibility**, two researchers collected rich interview data from 33 top managers using open-ended questions. The protocol was refined with the first three interviews, and interpretations were cross-checked until saturation was reached (Aguinis and Solarino, 2019). All three authors contributed to the analysis, resolving disagreements through discussion. Reflexivity guided the refinement of RQs and the emerging conceptual framework (Charmaz and Thornberg, 2021).

For **transferability**, we evaluated our findings in relation to previous studies' results. The similarities between prior studies' findings and ours are carefully reflected in the Discussion and Conclusion sections. We believe that our findings are transferable to other large companies operating in the IT industry and, to some extent, to professional service companies. To ensure **dependability**, we used peer debriefing (Guba and Lincoln, 1994). The third author, an experienced e-leadership scholar, critically reviewed the research process, including data analysis. Several face-to-face and online sessions were organized. The process is explained in detail in Section 3 to allow replication (Eriksson and Kovalainen, 2016).

Confirmability was addressed by linking findings to data, as illustrated in Table 3, which shows the development of initial, focused, and theoretical codes. All three authors participated in interviews and analysis. As is typical in qualitative research, our aim was not generalizability but gaining rich insights. We acknowledge the limitations of relying on interviewees' recollections and note that including perspectives of rank-and-file employees or middle managers could have strengthened the findings (Eriksson and Kovalainen, 2016).

4. Findings

We present the findings regarding video technology as an informative and interactive tool applied by top managers in IT companies. Table 4 illustrates the main differences between these two distinct ways of using video technology in e-leadership, with illustrative examples from the data.

4.1 Video technology as an informative and interactive tool

When video technology was applied as an informative tool, the top managers did not aim to have a conversation for two-way interaction but to communicate information through live or recorded videos (see Table 4). It offered affordances (flexibility and sharing formal information), but no constraints emerged.

Regarding flexibility, the findings showed that video meetings could be easily arranged, recorded, and accessed at convenient times, as noted in the following quote:

> Financial communication happens quite easily in our company. The chief financial officer makes a video recording and saves it. Then, the recordings are uploaded on the intranet, and people can watch them whenever it suits them. (Eta_Interviewee 11)

Table 4. Different uses of video technology in IT companies

	Video as an interactive tool	Video as an informative tool
Main purpose	Having video meetings with two people or a team	Live or recorded video tapes to inform people in the organization
Interactivity	- Two-way communication - Opportunity to give instant feedback - Opportunity to ask questions and discuss with the audience - Opportunities for spontaneous communication in live situations - Some participants may join from the same location	- One-way communication - No opportunities to give instant feedback - No discussion with the audience - Communication is pre-planned, not spontaneous, recorded
Targeting	- Easy to target communication for one person or small number of people	- Communication is targeted to a large audience
Example from the data	"We can adapt our working practices. If there is a need to organize an extended top management team meeting, for which all top managers participate, then it just goes like okay, now we need to have a video meeting, how do people wish the meeting would be organized? Half of the participants are remote, okay, and then we just organize the meetings so that half of the people join remotely online." (Mu_Interviewee 25)	"When I am presenting (sharing the screen) and explaining something in video meetings, I do not necessarily see the participants or whether they want to say something or whether they are raising their hand. I a way . . . you have to remember to involve people and acknowledge their participation (to the meeting) and be alerted if they have something to say and remember to ask if they have something to say" (Beta_Interviewee 3)

Source(s): Authors' own creation

Regarding sharing formal information, due to scalability, video communication was an effective channel for disseminating the same information to a large group of employees, as illustrated in the following excerpt:

> We've had a webinar series running consistently throughout the COVID-19 pandemic. Led by our corporate coach in collaboration with our people and culture staff, it focuses on promoting employee well-being. These webinars have been very popular, with several hundred participants. They occur approximately once a month. (Alpha_Interviewee 2)

As an interactive tool, video technology was utilized in one-on-one or team meetings; the goal was to engage in conversation and interaction. The top managers identified both affordances and constraints, giving rise to five distinct tensions, which are elaborated in Sections 4.2–4.6.

4.2 Flexibility–inflexibility tension related to using video as an interactive tool

Using video technology enabled flexibility (affordance) but caused inflexibility (constraint) in parallel. Video increased flexibility by making it easy for top managers to organize and schedule meetings. This schedulability allowed them to efficiently plan meetings, tasks, and responsibilities in advance. Some managers also established specific communication rules for their teams or organizations, as shown in the following quotation:

> We have organized our calendars so that Teams [video meetings] are scheduled between nine and three. We have established a transition period between meetings. If a meeting is scheduled for one hour, it ends after 50 min, giving you time to shift your thoughts and catch your breath before moving to the next meeting. (Eta_Interviewee 13)

Time efficiency allowed top managers to achieve their desired goals and outcomes within a given timeframe without wasting time. They considered video meetings as increasing time efficiency, as mentioned in the quotation regarding time efficiency (Eta_Interviewee 12, Table 4).

Regarding inflexibility, top managers identified limited control over their work rhythm and time because prescheduled meetings often ran overtime, leaving no time for breaks. They also noted difficulties in scheduling critical video meetings due to full calendars, making it hard to find suitable times for everyone, as demonstrated in the following quotation:

> Employees can't move things forward because everyone's calendars are so full, especially the calendars of key players who are needed everywhere. On the other hand, the lack of even the slightest break between video meetings leads to fatigue, making those days quite exhausting. (Eta_ Interviewee 12)

4.3 Social connectedness–social disconnectedness tension related to using video as an interactive tool

Using video technology enabled social connectedness (affordance) but caused social disconnectedness (constraint) in parallel. The top managers had arranged various virtual events where employees could participate using video technology and experience social connectedness. These events enabled relationship-oriented communication, networking, and social talk among colleagues, which were aimed to maintain the employees' sense of community and belonging, as the next quotation shows:

> We pay attention to the sense of belonging by considering how to promote it in different ways. The strategies through video communication are, of course, more limited compared to face-to-face communication. However, we can still eat pizza and taste wines together remotely . . .. We have ordered wines for delivery to everyone's home and then organized a wine-tasting event via video. (Kappa_Interviewee 19)

Trust-building was recognized as another benefit, made possible through video technology, although it might take longer than doing so in person. Furthermore, video meetings enabled interconnectivity (referring to this technology's ability to link employees and their work tasks), as further described in the following quotation:

> In our organization, one team of coders uses two screens for work, with one screen dedicated to the ongoing conversation at all times. This ensures accessibility, so if you have something in mind, you can simply say, "Hey, buddy, I've got a thing; could you help me?" Thus, they're able to maintain the same dynamic as in the office via video meetings. (Delta_Interviewee 5)

Nonetheless, the top managers explained that the use of video technology for e-leadership also led to social disconnectedness. First, video communication restricted emotional support due to the lack of physical presence and the limited nonverbal communication, as the next quote shows:

> I had to fire a couple of employees via Teams [video call], and it was very unpleasant, particularly for the employees involved. These individuals might be alone at home or living by themselves. If the redundancy interview comes as a surprise, it can leave the employees completely shattered. They have no support, not even their own teammates around. (Beta_Interviewee 3)

Second, video technology made trust-building more difficult. The top managers explained that they would prefer building trust in person and then maintain it by utilizing video communication. If trust had to be built from scratch, it would be challenging to do via video technology. Although it was possible to see and hear the other person on real-time video, the depth of experienced connection was insufficient for deep trust-building.

Third, the use of video technology for e-leadership weakened the employees' sense of community. Some top managers lacked the skills or the mindset to harness video technology for actions that would enhance the sense of community. It was typical in their organizational culture to spend time together in a shared physical space. The sense of community was built and maintained through those moments, as illustrated in the following quotation:

> Our culture, established almost 20 years ago, strongly emphasizes collective activities and spending in-person time with colleagues. The key challenge lies in fostering a sense of community within a dispersed organization. (Epsilon_Interviewee 8)

Fourth, video technology restricted social talk since communication suffered from the lack of spontaneity, with the dominant task-oriented communication diminishing the relationship-oriented conversation. According to top managers, limited social talk posed a major challenge because it led to situations where colleagues did not know one another as people outside the work context. In turn, this issue made collaboration in pressure-filled or unexpected situations difficult. It was also more strenuous to express empathy and to understand the broader context of colleagues' lives.

4.4 Engagement–disengagement tension related to using video technology as an interactive tool

Using video technology enabled engagement (affordance) but caused disengagement (constraint) in parallel. On one hand, video technology usage offered opportunities for top managers to engage people in video meetings. For instance, they used breakout rooms for small group conversations and question rounds to ensure each participant's involvement in discussions and decision-making, as the next quote shows:

> Participation in video meetings ensures that everyone feels they are part of the team, even if they've only briefly expressed their opinions. This involvement contributes to a sense of inclusion and belonging. (Eta_Interviewee 11)

On the other hand, video technology caused disengagement. First, disengagement was an issue when the goal was to innovate together. Top managers described exercising creativity, brainstorming, and expressing new ideas as challenging via video meetings even when the technology itself worked well. One hurdle involved engaging people's full participation in these innovating sessions. Some managers preferred in-person innovating sessions to enhance engagement and connection.

Second, using video technology distracted participants from concentrating during meetings. Long meetings held successively, the lack of in-person presence, and the constant flood of communication diverted their attention to multitasking during these sessions. The top managers constantly feared that the participants would start checking their instant messages or emails, browse the internet, or start working on tasks unrelated to the topic under discussion while appearing to be present in the meeting. Sometimes, the managers themselves felt tempted to do so, as the next quotation illustrates:

> . . . it's essential to have the patience to remain engaged. I found myself tempted to check another channel while the meeting was running, but if you genuinely want to be present, it's best to focus solely on the meeting at hand. (Xi_Interviewee 28)

Third, disengagement from video meetings was manifested as social absence. The top managers reported attending meetings of this type, as described in the next quotation:

> There are instances when people don't keep their videos on, and no questions are asked. I am 95% sure that people are doing their own things, and they haven't listened to anything I have said. (Gamma_ Interviewee 4)

4.5 Sharing formal information–concealing informal information tension related to using video as an interactive tool

Using video technology enabled sharing formal information (affordance) but caused concealing informal information (constraint) in parallel. The top managers reported that using video technology to lead remote work made sharing formal information easy and

convenient. First, video meetings facilitated disseminating information and updates that were relevant to the employees' daily work, their well-being, or their organizations' policies and goals. Second, the top managers established smoother information flow in video meetings, ensuring effective information and communication transfer in their teams. It was critical that relevant information would reach people at the right time to keep up with ongoing issues and continue in the direction pursued by each team, as stated in the next quotation:

> We are very open and transparent in our managerial communication. For instance, we, as leaders, join via video in many discussions, and this has helped to eliminate a lack of information about things. (Xi_Interviewee 28)

Despite the mentioned affordances, informal information concealing emerged. According to top managers, video communication in meetings was often formal, following predefined agendas and protocols. The challenge was that employees only received the information that was intentionally communicated to them. Additionally, informal communication within the organization became constrained with the diminished casual and spontaneous discussions when using video communication.

4.6 Equality–inequality tension related to using video technology as an interactive tool

Using video technology enabled equality (affordance) but caused inequality (constraint) in parallel. According to the top managers, using video technology for e-leadership made employees, teams, and offices in different locations more equal. Video meetings ensured equal access to information for all attendees and bridged geographic distances and time zones, enabling all team members' full participation. Ensuring everyone's equal opportunity to join meetings and discussions, regardless of their locations, increased inclusiveness, as the next quote shows:

> We have a team where half of the members work in Ireland and the other half in Finland. Team members now feel that the world has become a much more equal place. Previously, despite working together, they perceived the team in Finland as the primary team and the team in Ireland as secondary. (Lambda_Interviewee 23)

At the same time, video communication unintentionally caused inequality as employee differences became more evident. First, differences in communication styles were highlighted since some participants remained silent and focused on listening, while others were more talkative and eager to express their thoughts through video meetings. Second, differences in working styles became obvious as some highly engaged and performance-oriented employees were spending their whole day in video meetings, leaving no flexibility or time for them to rest. Other employees who tended to avoid tasks and responsibilities started taking advantage of remote work and video meetings by underperforming in their roles.

Based on our findings, we posit an emerging theoretical framework (Figure 1), which illustrates the main affordances and constraints connected with video technology as an informative or interactive tool in e-leadership, as well as the tensions between the affordances and constraints.

5. Discussion

In this study, we have investigated top managers' use of video technology in e-leadership from an affordance and dialectical tension perspective. The findings reveal that top managers in IT companies use video technology as both an informative and interactive tool in e-leadership. When video technology is employed primarily as an informative tool, it is perceived as offering clear affordances. In contrast, when video technology is utilized as an interactive medium, both affordances and constraints are identified, giving rise to five distinct tensions: flexibility–inflexibility, social connectedness–social disconnectedness, engagement–disengagement, sharing formal information–concealing informal information, and equality–inequality.

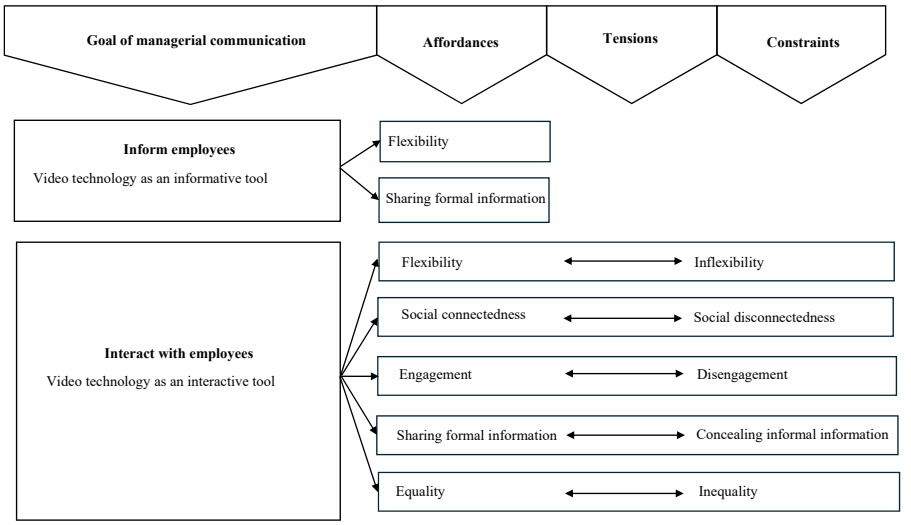

Figure 1. Theoretical framework of video technology as an informative or interactive tool in e-leadership. Source: Authors' own creation

Our study makes four theoretical contributions. First, with our findings, we contribute to the IS field and e-leadership by answering recent calls for adopting affordance theory to gain a better understanding of leading remote work (Bauwens and Cortellazzo, 2025) and overcome the tendency to conceive of technologies as passive tools or black boxes (i.e. technological tools are neither specified nor explored) (Fuchs and Reichel, 2023). We have also explored the social aspects of affordances, shifting the analytical focus from technology's structural features to its affordances (Wang *et al.*, 2018). Extant research exhibits mixed findings about technology's structural features. Huang *et al.* (2010) and Kahai *et al.* (2012) have found that transformational leadership is associated with a cooperative climate and increased feedback positivity when communication media richness is high. Ben Sedrine *et al.* (2021) report stronger cohesion predicted by transformational leadership when media richness is low. Furthermore, Robert and Dennis (2005) found that rich media, characterized by high social presence, enhance individuals' motivation to process information while simultaneously constraining their cognitive capacity, whereas lean media causes the opposite effect. This duality gives rise to a paradox in which rich media can both facilitate and impede performance. Therefore, solely focusing on technology's structural features may provide a limited understanding of the complex relationship between leaders and technology, given that structural features may be interpreted in different ways (Leonardi, 2011) and that affordances directly affect communication behavior (Zhou, 2021). Drawing on affordance theory has allowed us to shed light on the ways that video technology can influence e-leadership by affording or constraining action. Specifically, our study shows that video technology, when adopted for different aims (inform versus interact), is perceived as affording and constraining top managers' behaviors.

Second, while previous studies have focused on the affordances of video technologies (see Vidolov, 2022), we extend existing knowledge by addressing both their affordances and constraints in workplace communication. In the workplace communication context, Vidolov (2022) identified the affective affordances of videoconferencing, showing how employees construct emotional and relational meanings in daily work interactions. Shaba (2025) examined how managers and employees used videoconferencing to regulate emotions during organizational change, identifying affordances such as self-view and visibility that fostered

emotional awareness, but also constraints related to overuse and the limited conveyance of emotional cues. Larsen (2015), who explored videoconferencing in business meetings, highlighted affordances of connection and closeness, similar to the social connectedness affordance identified in our study. The same study also noted the affordance of easy information sharing, which resembles our finding on sharing formal information. In line with Jeon *et al*. (2022), who examined video affordances in the remote teaching context, our study also identified the constraint of low engagement, referred to as disengagement in our study, which describes the challenges participants face in maintaining focus during video meetings. Moreover, our findings show that video technology can also introduce inflexibility into managerial work, for instance, through meeting scheduling challenges. Furthermore, we identify equality–inequality as a previously overlooked affordance and constraint of video technology. In the present study, video meetings were seen as equalizing participation through shared visual access, yet also amplifying inequalities as differences in communication and working styles became more visible.

Third, we enrich the research on affordances by examining these inherent contradictions in the affordances of video technology through the lens of dialectical tensions. While prior research has mainly been limited to a one-sided focus on affordances (Hutchby, 2001; Rice *et al.*, 2017; Treem and Leonardi, 2013), only a few studies have explored both affordances and constraints to formulate technology-related tensions (e.g. Gibbs *et al.*, 2013). Our findings bring new insights regarding five distinct tensions.

The first tension is related to flexibility–inflexibility. In line with more general virtual collaboration studies, our findings highlight video technologies as both affording and constraining e-leadership behaviors (e.g. Mitchell, 2023). Specifically, our results support Mitchell's (2023) findings on how both leaders and team members have ambivalent perceptions on video technology's flexibility.

Our findings about the perceptions of social connectedness versus social disconnectedness (the second tension) and engagement versus disengagement (the third tension) tend to confirm the double-sided view that recognizes both opportunities for and concerns about developing social interactions and involvement (Mitchell, 2023). On one hand, previous studies have emphasized that virtual interaction supposedly increases employee engagement by promoting familiarity and providing entertainment (e.g. Koles and Nagy, 2014). Preliminary evidence suggests that compared to other digital tools, video technologies create a stronger emotional impact, and this heightened emotional presence can help foster trust more easily (Lokhtina *et al.*, 2022). On the other hand, video technologies may also increase anxiety and self-consciousness during virtual meetings, prompting individuals to regulate their emotions and manage their self-presentation to protect their identities (Vidolov, 2022).

The fourth tension involves sharing formal information versus concealing informal information. In video meetings, it is easy to share information; however, video communication is often formal, following predefined agendas and protocols. Salin and Koponen's (2024) study has shown that top managers use video communication mostly for pursuing instrumental goals; therefore, video communication is mainly task-oriented. Consequently, informal communication diminishes with the use of video technology. Such limited exchange through casual and spontaneous discussions may deteriorate innovation processes (Kantola *et al.*, 2024). Managers should thus pay attention to possibilities of sharing informal information during video meetings to gain a broader understanding of each employee's overall life situation and even work ability.

Regarding the fifth tension, our findings highlight opposite poles in the perceived equality and inequality afforded by video technology. Previous studies have recognized equality affordances in virtual environments (e.g. Koles and Nagy, 2014). Interestingly, our analysis indicates that e-leaders also sense inequalities emerging from the use of video technology, specifically amplifying differences in working and communication styles.

For our fourth contribution, by revealing the simultaneous existence of affordances and constraints perceived by top managers in e-leadership, we build on previous studies

highlighting the paradoxical nature of leadership in virtual settings (e.g. Purvanova and Kenda, 2018). Purvanova and Kenda (2018) point out the need to find synergies between leaders' functional and social behaviors in remote work (e.g. balancing between managing productivity and inspiring performance-beyond-expectations or setting clear goals and forming meaningful relationships). We advance this idea by showing that in pursuing both functional (informing employees) and social goals (interacting with employees), it is critical for leaders to balance the tensions brought by the use of video technology (see Figure 1).

5.1 Managerial implications

This study's managerial implications offer valuable guidance in strategically balancing the five tensions emerging from our analysis. Some suggestions for tension management are offered in this section (see Table 5).

First, to strategically manage the flexibility–inflexibility tension, managers should set clear boundaries to prevent video meetings from going overtime or causing a serious lack of breaks. The latter can be avoided by establishing regular video meeting slots outside the main break time. When calendars are full, scheduling tools may assist managers in finding slots for ad hoc video meetings while prioritizing only the necessary participants.

Second, to address the social connectedness–disconnectedness tension, managers should foster a positive virtual work culture. This can involve initiating casual catch-up sessions at the beginning of video meetings and sharing individual and team successes. Existing research indicates that a positive virtual work culture can be sustained while working remotely, and some employees may find digital communication more comfortable than face-to-face interactions, even when related to social talk (Bleakley *et al.*, 2022). To promote social interaction, managers can create virtual social spaces such as chats and video coffee breaks for informal discussions. Additionally, they should lead by example in expressing emotional support and using nonverbal communication openly. Flattening hierarchies and reducing status differences can encourage employees to embrace a more open, positive, and socially connected approach to video communication.

Third, to balance engagement and disengagement, managers should establish company- and team-specific guidelines for video meetings collaboratively. The risk of video conference

Table 5. Suggestions for tension management

Tension	Strategy to manage the tension
Flexibility–Inflexibility	- Set meeting boundaries - Schedule regular meetings with breaks - Use scheduling tools to prioritize key participants
Social connectedness–Social disconnectedness	- Build a positive virtual culture - Create virtual social spaces for casual interactions - Reduce status differences - Lead by example
Engagement–Disengagement	- Establish video meeting guidelines collaboratively - Negotiate participation methods - Use collaboration tools to facilitate real-time online interaction
Sharing formal information–Concealing informal information	- Foster an information- and knowledge-sharing culture - Ensure a smooth flow of critical, informal information. - Use technology to form small groups and secure informal information sharing within them
Equality–Inequality	- Enhance inclusive decision-making - Ensure equal distribution of work tasks

Source(s): Authors' own creation

participants turning off their cameras and beginning to multitask is higher than when they attend face-to-face meetings (Karl *et al.*, 2022). Therefore, managers should negotiate ways for employees to actively participate and contribute during video meetings. Actively using collaboration tools, including virtual whiteboards, online surveys, document-editing tools, reaction buttons, and chat features in video technologies, can enhance real-time interaction and boost participant engagement.

Fourth, to address the tension between sharing formal information and concealing informal information, managers can build an organizational and team culture that promotes information and knowledge sharing, crucial in leading remote work. By implementing such practices and supportive structures, managers can facilitate the smooth flow of recent and critical informal information. They can also leverage technological tools to form smaller groups for secure informal information sharing (Gibbs *et al.*, 2013), ensuring equal access to relevant information.

Balancing the equality–inequality tension requires managers to promote inclusive decision-making, allowing all employees to voice their opinions. Prior research indicates that when managers encourage participation in decision-making, employees become more engaged with the ideas shared and decisions made during meetings (Yoerger *et al.*, 2015).

5.2 Limitations and future research

It must be acknowledged that our findings are limited to a top management job function and to a particular industry (IT services). Thus, generalization to other types of job functions and industries should be made cautiously. Since this study focuses on top managers' views, in future research, it would also be beneficial to incorporate both managerial and employee perspectives to obtain a holistic picture of video technology's affordances and constraints. We recommend further research that delves deeper into the role of job functions and organizational environmental characteristics that could affect perception and actualization of technology-induced affordances (Khalil and Winkler, 2023).

Although video technology is a topical communication medium in the workplace, our study tackles this communication channel exclusively, neglecting other feasible alternatives. While most studies tend to focus on the affordances of single technologies, this may not allow full coverage of the complex relationship between leaders and technology when leading remotely. Future studies could advance the understanding of leaders' use of other digital communication technologies and provide insights into the complementary roles played by phone calls, emails, chats, and instant messages, among others. As our study sample comprises top managers aged 39 to 60, this cohort may find the use of video technology particularly appealing. However, prior research indicates that younger generations, such as Gen Z, primarily rely on text-based messaging for their interactions in the work context (Schroth, 2019). Therefore, future research could further investigate the communication channel preferences of different generations of managers in the workplace.

The data for this study were collected from Finland. This context might influence our findings because remote work is common in this country (Aksoy *et al.*, 2025) and people were largely exposed to technology-mediated communication during the COVID-19 pandemic (Jämsen *et al.*, 2022). In future research, data could be collected from multiple nations to determine how potential cross-country variations might affect the findings.

Finally, as recently emphasized (Gladkaya and Deters, 2024), research on affordances could benefit from relating the identification of affordances to outcomes. Future studies could follow this direction by investigating how leaders' perceived affordances and constraints, as well as the ways that they manage the affordances' tensions, influence relevant team-level outcomes. Since our study follows constructivist GT methodology (Charmaz, 2006), further research could complement qualitative approaches with computational methods, such as topic modeling or text mining, to assess whether the findings would align with broader data-driven patterns.

5.3 Conclusions

We have investigated top managers' perceptions on affordances and constraints of video technology for e-leadership. The findings indicate that video technology helps in e-leadership since it offers affordances such as social connectedness, employee engagement, formal information sharing, flexibility, and equality among people. However, such uses of video technology also impose constraints. Five tensions have emerged: flexibility–inflexibility, social connectedness–social disconnectedness, engagement–disengagement, sharing formal information–concealing informal information, and equality–inequality. For leading remote work, we have presented a theoretical framework of video technology as an informative or an interactive tool in e-leadership. For managers, we offer insights on how to strategically balance the mentioned tensions. We conclude that top managers' effectiveness in e-leadership is not only a matter of their supportive and inspiring behaviors but also lies in their dynamic and innovative relationship with video technology.

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Appendix

Main interview Questions

E-leadership

(1) How would you describe the leadership in your company before the COVID-19 pandemic, during the pandemic, and now that the pandemic seems to be releasing its grip on society?

(2) How would you describe the good e-leadership practices in your company?

(3) How would you describe the e-leadership challenges in your company?

(4) In your company, how have you tried solving these challenges, and what kind of support has been available to you in relation to e-leadership?

(5) Could you provide us with examples of the challenges you had in e-leadership and communication, as well as the solutions you found for them?

Digital communication via video

(1) How is your company's communication being led strategically?

(2) What digital communication tools or channels do you use in organizational communication?

(3) Considering video-based communication (Teams/Zoom video calls with cameras), what kinds of communication goals and tasks would it be suitable for?

(4) Could you please describe how you apply video-based communication in leading remote work in your company?

- Would you mind citing examples of team-level communication?
- Would you mind citing examples of organization-level communication?

(5) When do you feel that you have succeeded in e-leadership interactions? Would you like to cite an example?

(6) When do you feel that you have failed in e-leadership interactions? Would you like to provide an example?

Is there anything you would like to add?

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Corresponding author
Jonna Koponen can be contacted at: jonnapauliina.koponen@uef.fi