

Digital internal communication strategy: Using a matrix approach

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Abstract

Digital transformation (DT) has radically changed organisations in the last few decades. Digital technologies influence internal communication (IC) and how people collaborate in organisational contexts. The line between internal and external communication is blurred, and any internal information can find its way easily to external stakeholders, particularly using digital technologies. Through DT, IC developed into digital internal communication (DIC). As a strategic management function, DIC helps organisations achieve their strategic goals. This conceptual study illustrates the multidimensional perspective of DIC defined and applied in the context of strategic communication. The paper contributes to the strategic communication literature by offering a matrix comprising technical (digital channels and platforms, digital policy, and artificial intelligence) and social (digital strategic leadership, digital strategic capability development, digital culture, and digital collaboration) DIC elements. These elements are interrelated across all communication levels. Such a socio-technical interplay contributes to organisational learning and trust-building as the bedrock of organisational sustainability and success. The proposed matrix can serve senior leadership and communication professionals as a practical tool to support organisations in reaching greater good by developing their own DIC initiatives and elaborating an organisation-specific DIC strategy.

Keywords

Digital internal communication, DIC, digital transformation, digital strategy, digital capabilities, digital trust, socio-technical system, digital strategic communication.

Track

28. Strategy

Word count

6503 words

1. Introduction

Previous research suggests that the application of information and communication technologies (ICTs) has transformed organisations in recent decades (Vial, 2019). Also, digital technologies challenge all areas of strategic communication, including the principles and practices used in advertising, public relations, sales promotion, and online communication (Moriarty et al., 2019). Successful organisations use external communication strategies that align with their vision and mission and strategic communication plans describing how they will reach their communication goals and objectives (Mahoney, 2017). Similarly, internal communication (IC), as a strategic management function (Ruck, 2016; Welch and Jackson, 2007), is crucial for organisational success (e.g., Murray, 2013). However, IC is still a neglected research field, although one of the fastest-growing specialisations of public relations (Ruck and Men, 2021). Scholarly literature suggests that new technologies are a ‘force’ that influences almost every aspect of working in organisations (Noe, 2020). Consequently, organisations’ transformation from analogue to digital influences IC and how people collaborate in organisational workplace contexts (Riemke-Gurzki, 2017). The COVID-19 pandemic further boosted the digital transformation (DT) of IC towards digital internal communication (DIC) (Wuersch et al., 2023) and increasingly pushed employees into digital workplace (DWP) environments (Andersson et al., 2023; Peter et al., 2023; 2024).

The increasing DT of organisations affects their strategic communication (Verčič et al., 2024) and leverages strategic communication activities in an online digital ecosystem (Badham et al., 2022). As a result of ICT workplace applications, strategic communication as a field of research and practice is turning into digital strategic communication, which involves the targeted use of digital data and technologies aligned with the organisation’s strategic mission and goals (Badham et al., 2022). Hence, organisations need DIC strategies to satisfy the emerging expectations of DWPs aligned with the organisation’s overarching strategic aims. Whilst a body of literature explains how to create external communication strategies, which describe what individuals or organisations plan to do to achieve long-term goals (e.g., Mahoney, 2017), DIC has hardly been discussed in scholarly works (Riemke-Gurzki, 2017). Overall, there is “a critical need for novel theorising on digital innovation management” (Nambisan et al., 2017, p. 223). Although a recent systematic literature review of DIC identified an increased research interest in the topic in the last three years (Verčič et al., 2024), extant literature shows scant coverage on how organisations can create DIC strategies, methods and frameworks to guide organisations undergoing DT processes (Peter et al., 2020).

This conceptual study aims to fill this gap by offering a matrix as a practical tool for developing a DIC strategy, which, on the one hand, includes digital technologies and, on the other hand, integrates people relating to themselves and others in organisational settings of Industry 4.0 using these technologies. A matrix is “a two-dimensional array of elements of integer, double, or rational type, and manipulated through a small set of basic operations based on rows and columns” (Aydoğdu et al., 2024, p. 25). A matrix can help organise concepts into categories and easily find repetitive patterns (Mehleb et al., 2021). Our matrix for DIC strategy building utilises a framework offered by Wuersch et al. (2023).

Contributing to strategic communication literature, organisations can use the communication-based matrix to develop their own DIC strategy. Such a strategy should allow organisational members to fully engage human potential using DIC affordances to achieve their strategic aims. Furthermore, the matrix may also help managers and employees to effectively create a shared understanding of DT processes and establish common sense-making through trust-building learning processes that enable and strengthen relationships.

Relationships based on trust, in turn, constitute organisations (Welch, 2006), leading back to the proposed matrix's strategic dimension.

Our paper will provide an overview of extant research at the nexus between DT and DIC linked to strategic perspectives. We then introduce and discuss the matrix for DIC strategy development before concluding the paper by identifying limitations and suggestions for future research. Methodologically, we follow Reese's (2022) approach to conceptual research.

2. Theoretical background

2.1 Digital internal communication contributing to organisational success

Extant literature posits that IC, as the predecessor of DIC, contributes to the organisation's overall success (e.g., Rajhans, 2012; Verghese, 2017). As a driver of company management, IC can be characterised as a strategic management function (Ruck, 2016; Welch and Jackson, 2007). IC includes, on the one hand, communication channels and platforms, and, on the other hand, it also comprises interactions and relationships taking place at various organisational levels (Rogala and Bialowas, 2016). Furthermore, IC ranges from formal communication, such as emails from senior management to all employees, to informal communication, such as casual chats and gossip (Welch and Jackson, 2007). This broad range of IC activities indicates that not all internal communications can be qualified as strategic. Similarly, strategic DIC explicitly refers to digital communication activities supporting an organisation's strategic aims.

Similar to DIC, the purpose of IC goes far beyond merely transmitting information essential for employees to perform their tasks. IC also addresses employees' social needs and influences their satisfaction at work, as well as their motivation, engagement, and productivity (Rogala and Bialowas, 2016). Furthermore, IC helps to unify employees towards the organisational mission, strategy, and values; supports employees to adapt to new challenges rapidly; and facilitates building a healthy workplace climate. Recent scholarly literature emphasises the significance of IC as a collaborative sense-making process of internal stakeholders contributing to organisational culture (Verčič et al., 2024), enabling a healthy workplace climate. Through relationship cultivation and management, IC can prevent workplace discrimination (Lee et al., 2021). IC also gives employees a sense of belonging and a voice to express their opinions and views (Ruck, 2016) and promotes professional development (Wasiela-Jaroszewicz, 2008). As a vital management function, IC increases employees' loyalty to the organisation and fosters their performance in the workplace (Verghese, 2017). Hence, IC generally plays a strategic role in organisational functioning and overall success (e.g., Ruck and Men, 2021).

The strategic communication perspective concerns issues that align with and support organisational goals (Mahoney, 2017). Strategic IC is defined as "the strategic management of interactions and relationships between stakeholders within organisations across a number of interrelated dimensions including internal line manager communication, internal team peer communication, internal project peer communication and internal corporate communication" (Welch and Jackson, 2007, p. 184). Digital strategic communication includes management in a digital environment, where strategic communicators play a continuing role (Murphy, 2011). This implies close relationships between organisational leaders and strategic communication practitioners regarding organisational structures and processes and shared understanding and meaning-making. Andersson et al. (2023, p. 21) add a strategic management component to the conceptualisation of DIC and leverage it to a digital strategic communication level as "the

formal and informal communication between organizational members taking place through various digital communication modes, and the strategic management and administration of digital internal communication...[whereby] organizations are continuously constituted, negotiated and contested in and through communication". Hence, strategic DIC generally refers to communication activities initiated by top management or communication departments pursuing the organisation's top-level strategic priorities, such as competitive advantage and organisational sustainability.

In contemporary organisations, digital trust is another crucial element of DIC as it measures all stakeholders' confidence in an organisation's ability to protect data and individuals' privacy (Pietrzak and Takala, 2021). Trust-building is linked to organisational functioning and success (Vokić et al., 2020). Without trust, there are no relationships (Welch, 2006), which, in turn, constitute organisations; organisations are created by people relating to each other (Shockley-Zalabak, 2014). Hence, as a strategic key advantage, trust is needed for well-functioning organisations. As a result, trust, including digital trust, contributes as an enabler to organisational outcomes as there is a direct relation between trust in an organisation and the organisation's overall performance (Shockley-Zalabak and Morreale, 2011).

2.2 Digital internal communication using a socio-technical system approach

There are various ways in which DIC can be conceptualised. Some functional traditions emphasise technical organisational elements, such as communication channels, strategies, structures and systems. Other meaning-centred perspectives highlight social elements in organisational settings, such as people, relationships and interactions between internal stakeholders, and organisational culture (Neher et al., 2023; Shockley-Zalabak, 2014). Organisations as socio-technical systems comprise the four interrelated components of 'structure' and 'technology' (technical), and 'tasks' and 'people' (social) (Rogala and Bialowas, 2016). For example, introducing digital tools ('technology') across the hierarchy ('structure') may require staff training ('people') to better achieve organisational goals ('tasks'). Combining both technical-procedural aspects with socio-cultural DIC elements allows for focusing on the dynamics between the dimensions. According to the socio-technical systems theory (e.g., Appelbaum, 1997), such dynamics incorporate technological advancements with social elements and help organisations gain a competitive advantage. For example, using digital affordances, such as internal social media, online conferences, or video streaming, fosters ongoing learning (Men and Bowen, 2016).

When describing communication processes involving channels and platforms, the scholarly field of communication still tends to refer predominantly to the functional sender-receiver approach (Shannon, 1948). However, a recently presented multidimensional perspective on DIC conceptualised it as a socio-technical interplay that integrates DIC's technical elements, such as digital platforms, with social aspects, such as humans making sense of these platforms (Wuersch et al., 2023). Such a multidimensional perspective defines DIC as "comprehensive human-focused social constructions founded in a multileveled socio-technical framework to digitally transformed workplace environments" (p. 3).

Current debates in the field of IC, digital strategic communication, digital corporate communication and DIC discuss alternative conceptualisations that overcome the social-material dualism (e.g., Andersson et al., 2023). Verčič (2020) suggests that IC enhances organisational effectiveness by managing information flow and emotions between organisational members and motivating and engaging them by allowing the co-creation of

meaning and knowledge. Similarly, Badham et al. (2022) advocate for the ‘digital media-arena’ framework beyond the social-material dualism.

Overall, extant literature shows that DT goes well beyond mobile gadgets and apps, and technology is increasingly interrelated with social elements such as digital leadership, culture, training, collaboration, and skills (Kraft et al., 2022; Wuersch et al., 2023). By becoming more ‘social’ and ‘digital’, DT in organisations is getting more conversational and dialogical, interactive, and humanised (Ewing et al., 2019). In this way, dialogue may become an enabler of strategic communication (Kent, 2022). Furthermore, the dynamics between socio-technical DIC elements enhance learning processes (Wuersch et al., 2023). For instance, introducing social media as a digital platform for DIC purposes effectively empowered staff (Ewing et al., 2019); employees became dedicated and experienced a sense of meaning and purpose, which fostered recognition and relationships. Hence, digital affordances can effectively improve DIC practice.

2.3 Digital internal communication levels

Extant conceptualisations of IC as the predecessor of DIC use communication levels and dimensions (e.g., McQuail, 2010). Kalla (2005) defines IC as “all formal and informal communication taking place internally at all levels of an organisation” (p. 305). Some scholars explain organisational communication using a pyramid (e.g., Rogala and Bialowas, 2016), which integrates intrapersonal, interpersonal, group, institutional and mass communication levels. Others suggest utilising an IC matrix (Welch and Jackson, 2007), which stipulates dimensions according to four internal stakeholder groups: employees and superiors, team colleagues, project groups, and strategic management.

Only recently, novel conceptualisations of DIC have been introduced as ‘tools and platforms’ facilitating IC and collaboration within the organisation (Verčič et al., 2024); as ‘media-arenas’ (Badham et al., 2022); and as socio-technical ‘interplay’ of organisational elements offering a multidimensional perspective on DIC (Wuersch et al., 2023). Embracing a multidimensional perspective allows for a shared understanding of DIC on the intrapersonal, interpersonal, and organisational communication levels.

On the intrapersonal level, DIC explains communication as biological and mental processes that occur when people formulate messages and create an identity (Ruesch and Bateson, 1987). Such identity-building processes involve a complex system of socially constructed beliefs (Lindgren et al., 2017). IC influences the intrapersonal level of organisational stakeholders regarding their thinking and feeling, attitudes, intentions, values, and motivations (Maier et al., 2012) and impacts employees’ ability to value themselves. Positive self-evaluation can initiate affirming communication with others (Adler et al., 2013), influencing their collaborations and workplace success (Welch, 2011). Digital tools, in turn, can support individuals in developing a positive self-image. Thus, they can contribute to enhanced employee interactions and workplace relationships.

DIC at the interpersonal level involves at least two people (Rogala and Bialowas, 2016). Such relationships are particularly important when including superiors and subordinates (Gray and Laidlaw, 2004). A strong supervisor-subordinate relationship positively impacts the subordinate’s job satisfaction, performance, and potential for promotion (Kramer and Dailey, 2019; Neher and Maley, 2020). Generally, effective leadership communication in organisations is vital to promoting trust, openness, and employees’ affective commitment, which are factors that influence the achievement of positive organisational outcomes (Bambacas and Patrickson, 2008). Regarding DIC, leaders

must be open to new technologies and continuously search for innovative work approaches (Dery et al., 2017). Also, digital affordances can enhance collaborations and relationships, influencing workplace success (Welch, 2011).

Organisational DIC, like internal corporate communication (Welch and Jackson, 2007), helps foster organisational culture. The concept of organisational culture is important to an organisation as it is embedded in the system of shared beliefs and values that guide and direct the behaviour of members (Al Saifi, 2015; Neher et al., 2018; 2022). In this way, organisational culture can ultimately impact organisational performance (Neher and Maley, 2020). Therefore, managing organisational culture as an enabler of an organisation's performance is an increasingly critical task for management in contemporary organisations (Singh, 2013), and effective DIC can be a critical protagonist in creating a positive organisational culture.

3. A matrix for DIC strategy

3.1 Contextualisation

Our conceptual study accepts the invitation of Wuersch and colleagues (2023) to discuss their multidimensional perspective further using a strategic lens, allowing us to deepen the conversation on DIC. We extend their foundational work by creating a strategic DIC matrix supported by further literature.

While Maier et al. (2012) suggest that an IC strategy affects employees' cognition, touches them emotionally, stimulates employees' motivation, and assists their learning and development, we reason that organisations in Industry 4.0 also require digital literacy and digital technologies and affordances. Our argument implies a successful organisational DT. Still, Bughim (2017) observed that only a minority of businesses were successful in undertaking DT that was consistent with a specifically proclaimed strategy. In response, our work utilises current literature on strategic communication (e.g., Badham et al., 2022; Falkheimer and Heide, 2022), integrating DT (e.g., Chanas et al., 2019; Neher et al., 2023) to create a DIC strategy matrix (Figure 1) to be adapted to and employed by any organisation. Hence, senior management can create their own DIC strategy by adjusting the matrix to their specific organisational needs.

In alignment with the transition from IC to DIC, the evolution of 'strategic communication' is evident in the emerging concept of 'digital strategic communication' (Badham et al., 2022). This term encompasses an organisation's deliberate utilisation of digital technologies, data, and resources to orchestrate its communication efforts, fulfilling its mission and communicative objectives. As explained in the comprehensive literature review by Wuersch et al. (2023), key interconnected themes emerged, including technical elements (digital channels) and social elements (digital leadership, culture, training, collaboration, and skills). Based on further research (e.g., Mattila and Seppälä, 2016; Badham et al., 2022), we argue that digital policy and artificial intelligence (AI) should be added to the technical elements. The social and technical interplay is demonstrated to facilitate trust-building and enhance learning processes (Wuersch et al., 2023).

As previously discussed, DT goes beyond mobile gadgets and apps, and technology is increasingly interrelated with social elements. In strategic communication, activities are 'strategically planned', meaning they have a clear purpose and the best possible chances of achieving positive and measurable outcomes (Mahoney, 2017). 'Planned DIC elements' can

be drafted, approved, and implemented, including digital channels and platforms and policies (technical elements), digital leadership, and capability development (social elements).

On the other hand, digital innovation involves novel forms of organising, and “digital transformation is, without doubt, institutional change” (Hinings et al., 2018, p. 55). In turn, one of the main strategic purposes of DIC is to prepare employees for upcoming changes in analogy to IC (Rogala and Bialowas, 2016). Hence, some DIC elements are rather ‘organic’, evolving dynamically through interactions between organisational members. Such ‘organic DIC elements’ include digital collaboration and culture. Both managers and employees must share their knowledge and gain a common understanding of DT to enable and facilitate dynamic capabilities and organisational learning (Senge, 2006). This is important as the main challenges for DT do not lie in technology but in human nature. For example, digital affordances that allow organising people and tasks anytime and everywhere can lead to an ‘always-on’ mindset, which can cause ‘techno-stress’ (Heide and Simonsson, 2018). Furthermore, employee resistance against DWP transformation can be a barrier to effective DIC if organisational change parallels multiple technical errors hindering daily work tasks (Herrero et al., 2020).

AI is an emerging DIC element, arguably requiring integration into our matrix of DIC strategy (Figure 1). Currently, AI can be classified as ‘technical’ and ‘organic’ being software-based; however, it can ‘learn’ from previous iterations (Mohammed et al., 2022). How quickly AI will be integrated into DIC is yet to be demonstrated, as some DIC elements, such as collaboration, culture, leadership, and structure, only change slowly, if at all (Madsen, 2021). For such fundamental organisational elements to be adapted to the new possibilities of digital channels and platforms for a comprehensive DIC, free and open dialogue between internal stakeholders is required (Pekkala, 2020).

As a result, our strategy matrix (Figure 1) applies a two-dimensional perspective, namely the dimensions ‘technical–social’ and ‘planned–organic’, jointly contributing to developing internal stakeholder capabilities based on trust-building.

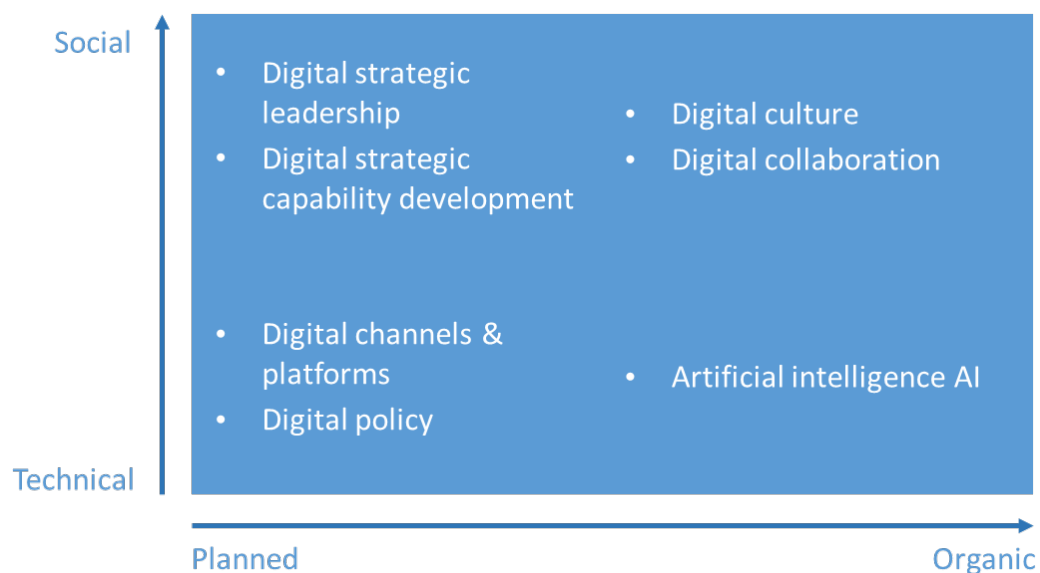


Figure 1. Matrix of DIC strategy

In the following, we discuss the elements within the two-dimensional strategic matrix, including arguing their dimensional positioning.

3.2 Digital channels and platforms

DT involves overhauling existing internal processes and structures to harness the full benefits of new technology (Fenech et al., 2019). On the intrapersonal level, personalised interfaces and DWPs come into play. Individualised learning platforms, for instance, can provide online courses tailored to an individual's strengths and areas for improvement (Singh and Hess, 2017). DT extends beyond mere mobile gadgets and apps as technology increasingly intertwines with social elements such as digital leadership, organisational culture, collaboration, and capability development. Adopting a more 'social' and 'digital' stance, DT in organisations becomes more conversational, dialogical, interactive, and humanised (Ewing et al., 2019). This shift towards dialogue, in turn, may emerge as a strategic communication tool (Kent, 2022). Noteworthy, while social media has substantial potential for DIC regarding shared learning, relationship building, dialogue, and participatory communication, the potential is not yet exhausted (Andersson et al., 2023). Adverse impacts, such as techno-stress (Atanasoff and Venable, 2017) as a barrier to effective DIC, need to be prevented through organisational digital capability development.

At the interpersonal level, collaboration-enhancing tools play a central role. Digital applications and internal social media platforms are commonly employed to facilitate organisational collaboration. Examples include apps with features for employee recognition (Berges and Kon, 2019) and in-house Facebook groups, fostering idea sharing and collaboration across silos (Dery et al., 2017). Organisations utilising DIC channels can foster an environment and mindset of continuous learning, nurturing a feedback culture that empowers teams to thrive and generate innovations more rapidly (Zhang, 2016).

On the organisational level, the growing prevalence of social media within organisations is reshaping the approach of IC towards DIC, with involvement in internal social media activities intricately connected to relationship cultivation (Men et al., 2023). This comprehensive shift is closely linked to various DIC channels, including intranets and internal social media platforms (Ewing et al., 2019). Such digital communication platforms may become strategic to employees. Offering them the opportunity to convey their voice and gain backing from peers, employees can cause a 'spiral of voice', influencing strategic management decisions (Madsen and Johansen, 2019).

Figure 1 placement – technical planned: Digital channels and platforms are technical in nature, requiring thorough planning, specific development, and organisational implementation. Despite their prevalent technical characteristics, digital channels and platforms increasingly allow for social interaction. Dery et al. (2017) present an example of an organisation whose "call centre employees set up social media platforms (e.g., on Facebook) to share ideas, collaborate across silos and self-organise" (p. 140).

3.3 Digital policy

Formulating an organisation's digital policy is essential in ensuring the responsible and appropriate utilisation of digital technologies and content in IC and contributes to trust-building (Mattila and Seppälä, 2016). Furthermore, the digital policy guides using digital affordances appropriately to achieve an ethical online communicative arena space (Badham et al., 2022) as a 'flowing digital workspace' where human-focused social constructions contribute to organisational strategic aims. For example, a social media policy provides codes of conduct and guidelines to the internal stakeholders for accessing social media, disseminating information, and communicating with the preferred language and tone (Mazzei and Butera, 2016). Ewing et al. (2019) assert the necessity of well-defined social media

policies to guide employees in using the platform effectively. Given the blurred line between internal and external digital communication, managing interactions between internal and external stakeholders in the online sphere poses a challenge (Kulik et al., 2012). Consequently, employees across the organisation need clarity on what internal content can be communicated externally and how to do so.

Embedding policies, guidelines, and codes of conduct within the organisational culture to manage employee behaviour requires effective digital communication training and skills development. Ewing et al. (2019) emphasise that training should foster open communication rather than controlled communication, and Thelen (2021) advocates educating employees on employee advocacy. Recognising the critical role of employees' online behaviour, digital policies and related training initiatives to enhance collaboration can be instrumental in crisis prevention (Mazzei and Butera, 2021; Mazzei et al., 2012).

In the broader context, DIC policies should address two primary concerns: communication effectiveness and prohibitions (Sussman, 2008). The understanding and adherence to communication rules are more likely enabled when integrated into the organisational culture. It should be communicated through dialogue, supported by well-articulated arguments explaining the risks and costs of failure, and framed from a win-win perspective instead of a punitive approach (Gilsdorf, 1998; Stohl, 1986; Sussman, 2008), which rather would be a barrier to effective DIC.

Figure 1 placement – technical planned: As part of the technical elements, digital policy as an enabler guides the responsible use of digital platforms in organisational settings. For example, the digital policy by Duke Energy, a U.S. electric power and natural gas holding company, explicitly prohibits unauthorised dissemination of internal documents and business-related confidential communications (Mazzei and Butera, 2016). Limiting the inappropriate use of digital platforms by organisational participants through digital policies is essential because internal information can easily be forwarded externally (McDonald and Mitra, 2019). In another example, digital policy guidelines outline how to use digital platforms in organisational settings while maintaining a healthy work-life balance (Atanasoff and Venable, 2017). While policy is generally static and can be well planned, with the potentially rapidly evolving AI, policy may need to be adapted more frequently, slightly shifting towards organic to avoid becoming a barrier to effective DIC.

3.4 Digital strategic leadership

Digital leadership combines a leadership style (e.g., transformational) and the use of technology (Shin et al., 2023). Similarly, digital leadership integrates leadership with digital abilities to improve performance using the benefits of digital technologies (Bresciani et al., 2021). Creating a well-defined digital vision is a crucial responsibility for leaders (Musundire et al., 2020; Singh and Hess, 2017), serving as a valuable asset and significant enabler for organisational success. Organisations that incorporate technologies, such as big data, cloud computing, mobile, and social technologies as integral parts of their infrastructure and emphasised in a robust digital vision, tend to exhibit higher profitability. Such organisations also achieve a superior market valuation, and attain increased sales compared to competitors lacking such a vision (Schwertner, 2017).

In the broader context of DT, organisational leaders must ensure that their employees cultivate a digital mindset capable of responding to the “disruptions associated with the use of digital technologies” (Vial, 2019, p. 129). In essence, as expressively articulated by Chanas et al. (2019, p. 22), organisations require leaders who aim to “surf the digital wave” rather

than merely trying to “get ahead of the digital tsunami” – an approach that would hinder effective DIC. In contrast, leadership equipped with digital skills is in high demand, as it is poised to enable and enhance both DIC and DWP strategies, foster organisational cultures embracing digital technologies, and ultimately unify the workforce (Singh and Hess, 2017).

The COVID-19 pandemic underscored the critical role of digital communication led by organisational leadership. Research by Bamberry et al. (2022) reveals that digital leadership skills not only improved communication but also contributed to heightened employee satisfaction. As our contemporary digital organisational culture increasingly leans towards digital platforms, leaders and employees will likely need digital capabilities sooner rather than later. Consequently, the development of digital capabilities across all levels of the hierarchy is or will continue to be (depending on the current stage of digital organisational transformation) a priority on an organisation’s strategic agenda.

Figure 1 placement – social planned: Digital strategic leadership is a social element within DIC and can be planned by recruiting leaders who meet a specific skill set for a dedicated position. Nevertheless, strategic requirements of a position may shift over time, nowadays more frequently than previously, needing leaders to be agile and able to organically adapt. Hence, digital strategic leadership does not remain static in the ‘planned’ phase but may shift to ‘organic’ over time. For example, Apple emphasises the significance of digital leadership in the context of digital platforms and directs employees with inquiries on policy compliance to consult with leadership (Mazzei and Butera, 2016). As a consequence, leaders need to adopt a favourable attitude towards DT.

3.5 Digital strategic capability development

The emphasis on capabilities is a fundamental element of understanding DT (Malchenko et al., 2020), as it “is not a one-off application, but a strategic choice towards acquiring and embedding digital capabilities” (Pagoropoulos et al., 2017, p. 370). In contrast to Wuersch et al. (2023), we consolidate ‘digital training’ and ‘digital skills’ within the ‘digital capability development’ element. It incorporates both technical elements, such as internal social media, and social elements focused on fostering learning and empowerment. Platforms like internal social media enable employees to share knowledge, leading to mutual empowerment and motivation through collaborative learning (Metin, 2019; Woo, 2021). This form of training equips employees with the skills to navigate digital platforms and tools, emphasising an understanding of content relevance and guiding principles, notably avoiding sharing proprietary, confidential, or offensive content (Ewing et al., 2019). Effective utilisation of DIC requires organisations to provide clear policies and guidelines, coupled with dedicated training, fostering increased confidence and trust among employees in themselves and the organisation. This interconnectedness extends to competency development, interpersonal trust, collaboration, and innovation through digital channels (Bulińska-Stangrecka and Bagieńska, 2019). Thus, using digital technologies for collaborative learning contributes to building trustful relationships in organisational settings.

Digital skills development necessitates flexibility, learning abilities, and an open attitude. Digital competencies encompass a broad spectrum, ranging from digital problem-solving to knowledge about privacy principles and cybersecurity (Dobrowolska and Knop, 2020). While digital hard skills like digital literacy and social media proficiency are considered fundamental for success in DWP (Bejaković and Mrnjavac, 2020), digital literacy enables employees to confidently use online applications while maintaining workplace privacy (Boerman et al., 2021). Moreover, a mindset of continuous learning is crucial for organisational DT, encompassing activities like testing innovative ideas, embracing flexibility

and collaboration, and fostering autonomous learning (Iordache et al., 2017; Kovaitė et al., 2020; Solberg et al., 2020).

A critical role in dismantling barriers to implementing DT and fostering innovation and organisational growth can be attributed to appropriate training, education, and knowledge among internal organisational stakeholders (Scuotto et al., 2021). Digital soft skills, including an open attitude towards DT, teamwork, leadership, and emotional competencies, complement technical tools and a digital mindset. These attributes enable employees to actively contribute to the organisation, enhancing engagement and communication (Ewing et al., 2019; Solberg et al., 2020).

Figure 1 placement – social planned: The matrix allows guiding Human Resources Management (HRM) when creating their organisation-specific digital strategic capability development plan based on the DIC strategy to build the digital capabilities of employees. An HRM practitioner explained that employee training is essential in promoting the integration of digital practices in a company, particularly for those who have been with the organisation for an extended period and may require assistance adjusting to novel approaches. Without adequate training, these employees might encounter reluctance or difficulty in embracing digital change (Lowndes and Fu, 2021). As an illustration of this emphasis on employee training, 3M's social media policy requires individuals to undergo mandatory training before engaging in any business-related activities on digital platforms (Mazzei and Butera, 2016). Conversely, Polaroid represents a case where digital technology increasingly dominated the photography market. Polaroid's focus on chemistry rather than digital electronics hindered its adaptability; for the company to remain successful, executives should have prioritised investing in DT and the digital skills of their workforce to compete, innovate, and explore new product avenues (Scheurer, 2005). Shifts from 'planned' towards 'organic' may occur with ever-accelerated technological changes, above all AI.

3.6 Digital culture

Digital culture is a set of values, norms, practices, and expectations relating to how people (should) act and interact within a modern society directly affected by digitalisation (Shin et al., 2023). DIC extends beyond mere technology, necessitating the integration of the right set of values, beliefs, and organisational culture (Berges and Kon, 2019; Fenech et al., 2019). These values may encompass digital inclusion, involving aspects like digital literacy and training for the entire workforce (Bejaković and Mrnjavac, 2020). By instilling these values across all employees, an organisation enhances its digital authenticity (Neher et al., 2022), thereby establishing a digitally safe culture.

Implementing DIC strategies in organisations goes hand in hand with cultural change. Leadership is crucial in championing these values and transforming organisational culture (Barratt-Pugh and Bahn, 2015). In change processes, even when propelled by new procedures and policies, internal stakeholders are encouraged to take greater ownership of their actions, resulting in increased responsibilities (Limwichitr et al., 2015). Therefore, alongside leadership, a sense of fellowship is essential for successfully steering change towards a digital culture.

While digitalisation was historically attributed mainly to technology, contemporary successful organisations recognise the synergy of technology, leadership, and culture in capitalising on the opportunities presented by DT. Digital training has increased job motivation (Mohamed, 2022), consequently amplifying organisational capabilities through digitalisation (Shin et al., 2023). Sustaining a thriving digital culture necessitates continuous

development of digital capabilities (Schwarz Müller et al., 2018). In essence, digital leadership, values, and culture, intertwined with digital affordances, emerge as prominent themes in the existing literature on the organisational communication level (Wuersch et al., 2023). Consequently, both social and technical organisational elements are interconnected and serve as determinants of DIC.

Figure 1 placement – social organic: Rather than being planned, the social element ‘digital culture’ is ever-organically evolving. Recently, cultural change, including digital cultural change, has occurred frequently (Martínez-Caro et al., 2020). For example, Saint-Gobain, a French multinational corporation, leverages advanced human-machine interfaces and data analysis to enhance industrial performance and deliver top-quality services to its clientele. In pursuit of this objective and given the company’s decentralised structure with numerous centres worldwide, each centre interprets and implements these guidelines uniquely, influencing its digital culture, including virtual collaboration, innovation processes, and power distribution (Martínez-Caro et al., 2020).

3.7 Digital collaboration

Nowadays, technology plays a pivotal role in enabling digital collaboration. The use of technology enhances and expands the abilities of stakeholders within the organisation, including leaders and employees, to collaborate seamlessly without geographical limitations (Salopek, 2000). Digital collaboration necessitates using tools such as computers, tablets, or smartphones equipped with web browsers or dedicated apps, allowing users to communicate synchronously or asynchronously (Noe, 2020).

Investments in the DT of organisations are often driven by the recognition that digital tools can significantly support collaboration (Peter et al., 2019). Utilising interactive features like internal social media effectively empowers employees and fosters dialogue. This heightened interaction not only intensifies employee engagement but also facilitates relationship-building, leading to increased mutual understanding, collaboration, and improved interactions with management (Ewing et al., 2019) as enabling factors of effective DIC. Therefore, employees tend to embody organisational values more prominently, driving motivation, dedication, and commitment in their work activities (Neher and Maley, 2020).

For example, social media platforms further enhance connectivity among employees (Dery et al., 2017). Strengthening connections within teams promotes a more pronounced team orientation, facilitating cooperation across the entire organisation. This increased collaboration, in turn, supports organisations in cultivating innovation, aligning with the demands of the digital age that requires proficient digital skills (Bulińska-Stangrecka and Bagieńska, 2019).

From a DIC perspective, digital capability development through digital collaboration can occur at various levels, including the organisational, interpersonal, and intrapersonal levels. Digital learning, such as electronic and mobile learning, establishes learning environments that facilitate productive collaboration and communication among internal stakeholders (Basak et al., 2018).

Figure 1 placement – social organic: Digital collaboration as social interaction between people takes place organically through the means of digital affordances, allowing seamless interactions across any geographical borders. An example of digitally enhanced collaboration is presented by a company that introduced a ‘StarMeUp’ app, which leaders and employees can use to thank each other and acknowledge the organisation’s values in coworkers (Berges and Kon, 2019). Additionally, AI is increasingly integrated into ‘digital collaboration’.

3.8 Artificial intelligence

Utilising intelligent devices has radically changed communication between companies and stakeholders. In this context, strategic communication deals with change processes “gaining support for corporate changes or new organizational practices” (Aggerholm and Thomsen, 2016, p. 196). These new practices often involve the incorporation of AI, as defined in recent studies that portray DT as the rapid and extensive adoption of emerging technologies, including cloud computing, big data, and the Internet of Things, significantly impacting organisational structures (Verčič et al., 2024).

The effects of DT on corporate communication vary, with its impacts conceptualised in prior works as interconnected building blocks influencing both external communication and IC, encompassing organisational culture, leadership, and employee roles (Vial, 2019). DT, as described, is a process aimed at improving entities through substantial changes to their properties via integrating information, computing, communication, and connectivity technologies (Vial, 2019).

Ensuring that employees feel secure when using AI is crucial, as resistance to technology can arise from a lack of digital skills. Such a lack of digital skills then becomes a barrier to confident DIC. Employees’ confidence in using new technology is vital, as a lack thereof may lead to its abandonment (Zhang et al., 2020). Confidence is recognised as one of the top ten desirable soft skills in the workplace (Robles, 2012), and mutual trust is deemed essential for successful DIC (Kovaitė et al., 2020). Trust is acknowledged as a key component of relationships (Welch, 2006), making it a prerequisite for effective DIC. Strong relationships based on trust support internal collaboration and contribute to a healthy workplace climate (de Graaf, 2016), also when incorporating AI.

Figure 1 placement – technical organic: Typically, AI is a technical element within DIC. However, as AI is self-learning, it evolves organically. As indicated above, AI will likely become a socio-technical hybrid by including AI in digital social interactions and collaboration. This is exemplified by a study investigating the Emirati government’s plan to incorporate AI into its organisations (Farhi et al., 2022). The plan aims to facilitate everyday functions by maximising technology usage. The study emphasises that AI-enabled systems are based on feedback systems facilitating and improving two-way communication processes. The study results conclude that AI has a beneficial role, accompanied by two-way communication feasibility. Respondents of the study agreed on AI “technology’s role in facilitating communication and enhancing their commitment, cohesion, and performance in the best possible manner” (p. 5).

4. Conclusion, limitations and future research

4.1 Conclusion

Our conceptual work aimed to extend foundational scholarly research to propose a strategic DIC approach. In particular, this work aimed to offer a matrix as a practical tool for managers and communication practitioners to develop a DIC strategy that includes digital technologies and people collaborating in DWP settings of Industry 4.0.

The matrix extends Wuersch et al.’s (2023) interplay framework of the technical and social DIC elements, and further integrates a ‘planned’ and an ‘organic’ dimension. On the one hand, digital channels and platforms, and digital policies (technical), and digital strategic leadership and digital strategic capability development (social) can be ‘strategically planned’,

that is, they should have a clear purpose and measurable outcomes and can be drafted, approved and implemented. On the other hand, AI (technical), digital collaboration and digital culture (social) are ‘organic DIC elements’ and develop dynamically through interactions with organisational members. The technical–social and planned–organic dimensions of the DIC elements can conjunctly create trust-building learning processes in DWP settings, constituting the bedrock of organisational functioning and success.

Overall, our study conceptualises how DT impacts planned and organic socio-technical DIC elements of organisational settings. To guide organisations toward successful DIC, a digital strategy, which must be people-driven, is recommended. The proposed matrix (Figure 1) helps organisations create their own DIC strategy for success in the digital age, considering enablers and barriers.

4.2 Limitations, contributions and implications for future research and practice

This study has limitations that need to be acknowledged. The research is based on extant literature and makes a novel contribution to the strategic communication scholarship. However, the proposed matrix for the DIC strategy has not yet been applied to practice and thus serves as a conceptual starting point to create a DIC strategy.

In the practical fields of public relations and strategic communication, managers reassess how DIC is implemented and defined (Men, 2021). As a contribution to practice, using this matrix in a case organisation could validate the theoretical approach and offer insights into the value of a strategy for DIC practice, including opportunities to improve the matrix. Such a case study could also provide a deeper understanding of the interplay between the socio-technical and planned–organic dimensions of the strategic DIC. As a contribution to theory, the matrix could be further developed into a maturity model (similar to Neher and Miles, 2020) with specific criteria for each socio-technical element. Using such a maturity model, organisations could assess the maturity level of their DIC as a basis to identify the ‘readiness’ for introducing novel technologies, such as AI.

Further investigations on AI as a technical organic DIC element would allow a better understanding of how a human-centred approach to DIC could effectively be extended in the digital age using AI. Future research could also explore how people interact with and learn from AI and how digital trust is built in DWP environments using AI. Building organisational trust through IC has variously been investigated (e.g., Vokić et al., 2020; Welch, 2006). These previous works could be extended using a digital dimension, including AI. By exploring the link between trust in organisational settings and strategic DIC, including AI, new insights could show how relationships and interactions can be strengthened in DWP settings of the ‘fourth revolution’.

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