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# Everything Is IT, but IT Is Not Everything – What Incumbents Do to Manage Their Digital Transformation Towards Continuous Change

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## Everything Is IT, but IT Is Not Everything – What Incumbents Do to Manage Digital Transformation Towards Continuous Change

Completed Research Paper

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#### Abstract

Driven by the ongoing emergence of digital technologies, today's business environment is changing at tremendous speed. Thus, incumbents have initiated digital transformation programs to cope with the associated challenges. While transformation programs are typically associated with punctuated change, emerging research conceptualizes digital transformation as an ongoing process that demands new approaches to organizational change. Hitherto, we lack insights on how organizations prepare themselves for such continuous change. Thus, we conduct an explorative interview study with 29 interview partners that provide insights from different roles, organizations, and industries. Thereby, we gain an overview of organizations' digital transformation realities and challenges. We contribute to the existing literature on digital transformation by elucidating the individual foci and interdependencies of digital, agile, and cultural transformation. Further, we shed light on additional elements that foster continuous change, i.e., organizational culture, purpose, vision, and values in the context of digital transformation.

**Keywords:** Digital transformation, continuous change, interview study, organizational change

#### Introduction

Digital technologies' characteristics continue to spur digital innovation efforts in organizations globally (Nambisan et al. 2017). Due to their reprogrammability, the homogenization of data, and their self-referential nature, digital technologies challenge erstwhile assumptions about how organizations can derive value from technology (Yoo et al. 2010). By collecting, analyzing, and leveraging the potential of data, digital technologies create novel opportunities to satisfy people's evolving needs with client-centric (digital) products. Further, the speed of technological change is almost exponential, and rules of market competition are changing radically. Organizations integrate vertically and horizontally, often challenging or even disrupting venerable business models (Baiyere and Hukal 2020). This requires organizations to continuously adapt to today's fast-changing business environment (El Sawy et al. 2010; Hanelt et al. 2020).

To remain competitive, organizations require, inter alia, different structures, processes, skills, and cultures (Berger et al. 2020; Berghaus and Back 2016). In addition, the worldwide pandemic has been forcing organizations and individuals to accelerate the adoption and usage of digital technologies. Thus, they have become an inherent and instrumental enabler to stay connected with employees, clients, and partners.

Specifically, incumbents still often struggle, among others, with their deep structures, legacy systems, historical assumptions about customer needs, and challenged value creation patterns where the underlying logic of value creation has changed (Chanias et al. 2019; Sebastian et al. 2017; Svahn et al. 2017). Thus, to cope with the changes and challenges that digital technologies pose, organizations engage with companywide digital transformation (DT). Although DT has been a top concern of research and practice for over a decade now, we are still in dire need of theorizing this phenomenon (Lynne and Rowe 2021). Hitherto, research provides ample insights into the general DT process (e.g., Vial 2019), associated action fields (e.g., Gimpel et al. 2018), challenges (e.g., Heavin and Power 2018; Piccinini et al. 2015), success factors (Andersen and Ross 2016; e.g., Holotiuk and Beimborn 2017), or the roles of technology within DT (e.g., Sebastian et al. 2017). For instance, the literature elucidates how to strategize for DT (Chanias 2017; Fischer et al. 2020; e.g., Hess et al. 2016; Matt et al. 2015), the necessary structural and contextual changes (e.g., Jöhnk et al. 2020; Ossenbrink et al. 2019), or the underlying need for cultural change (e.g., Hartl 2019). Further, attempts to guide organizations' DT efforts have resulted in a plethora of DT maturity models that outline development paths towards a desired target state (e.g., Berger et al. 2020).

However, we share Bordeleau and Felden's (2019, p. 1) concern, who argue that we still lack answers to "the question of 'how' to support managers in the organizational change". This is for two major reasons: First, we see the need to complement the vast body of conceptual and in-depth case studies with a broader understanding of organizations' DT journey. This may help to gain an overview of how organizations approach their DT journey and to what extent these efforts follow or differentiate from our scientific understanding of DT. Thereby, we adopt an actor-centric perspective to explore "internal renewal and change processes in the light of DT" (Nadkarni and Prügl 2021, p. 237). Second, in line with emerging research (Hanelt et al. 2020; Hinsen et al. 2019), we challenge the notion that DT is a matter of large organizational transformation programs that eventually achieve a desired target state. Instead, DT often unfolds from multiple concurrent initiatives or acts of organizational improvisation that follow the fluctuating imperatives of organizations' turbulent business environment (El Sawy et al. 2010; Jöhnk et al. 2020; Zimmer 2019). Thus, we seek to extend the discussion on organizational change by arguing that organizations should not understand DT as a punctuated change to reach a new stable state but rather to achieve a new state of making continuous yet intentional change the new normal (Lyytinen and Newman 2008). The literature on new organizational identities and organizational agility in DT corroborates this reasoning (Lee et al. 2015; Wessel et al. 2021). To summarize, this paper seeks to examine the status quo of organizations' (especially incumbents') DT journeys and the underlying intentions for what they want to achieve with their DT efforts. Thus, we ask:

What are incumbents' approaches to DT and how do these efforts contribute to continuous change?

To answer our research question, we conducted a broad, explorative interview study. We interviewed 29 practitioners from mainly incumbent organizations, which are heavily involved in their DT efforts. Thereby, we focused on a better understanding of their overall transformation activities and recognized that they also conducted an agile transformation (AT) and cultural transformation (CT) at the same time. During our research, we identified individual employees as the driver and obstacle for DT and continuous change and, thus, focus on employees, i.e., how their roles might change in the future and how leaders can create an organization that fosters continuous change. Our results contribute to our understanding of DT (Vial 2019) and address, hitherto, underexamined topics in the DT context, i.e., the role of organizational culture, middle management, and the work environment (Nadkarni and Prügl 2021). Further, we challenge prevailing assumptions of organizational change behavior (Hanelt et al. 2020) and build a connection to well-known concepts that may guide future research in times of continuous change (Venus et al. 2019).

#### **Foundations**

#### Digital Transformation

According to Vial (2019, p. 118), DT is a "process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies." While Vial (2019) focuses on the effects of technology, Hinings et al. (2018) describe DT as the "combined effects of several digital innovations bringing about novel actors (and actor constellations), structures, practices, values, and beliefs that change, threaten, replace or complement existing rules of the game within organizations, ecosystems, industries or fields". To distinguish DT from IT-enabled organizational transformation, Wessel et al. (2021) claim that DT not only enhances organizations' way of doing business but affects and respectively changes their entire identity. Integrating those definitions from an organizational perspective, we define DT as a multi-dimensional transformation that affects the whole organization due to the emergence and ongoing development of digital technologies (Berger et al. 2020). Due to the paradigmatic shift towards a different identity, the literature proposes novel approaches on how to conduct such a transformation (Chanias et al. 2019; Hess et al. 2016; Matt et al. 2015). Further, Matt et al. (2015) emphasize the recursive nature in exploring digital technologies' imperatives in value creation and organizational structures.

While Matt et al. (2015) focus on four overarching strategic planning dimensions of DT, other research focuses on the operationalization of DT. For instance, Gimpel et al. (2018) identify six action fields, i.e., customer, value proposition, operations, data, organization, and transformation management, each with four specific action items. Further, the literature provides insights into specific areas of DT, e.g., strategy (e.g., Bharadwaj et al. 2013; Mithas et al. 2013; Sambamurthy and Zmud 2000), structures and processes (Berger et al. 2020; e.g., Jöhnk et al. 2020), systems and data handling (e.g., DalleMule and Davenport 2017; Dremel et al. 2017), and culture (e.g., Duerr et al. 2018; Hartl and Hess 2017). Moreover, since digital technologies offer novel ways to interact with customers and satisfy their needs, DT literature often focuses on the characteristics of incumbents that face the potential loss of their market position due to digital disruption (Andersen and Ross 2016; Sebastian et al. 2017). Hereby, extant work elucidates barriers (e.g., Vogelsang et al. 2019), challenges (Heavin and Power 2018; e.g., Piccinini et al. 2015; Syahn et al. 2017). success factors (e.g., Holotiuk and Beimborn 2017), lessons learned (e.g., Hansen and Sia 2015; Loonam et al. 2018; Morgan 2019; Svahn et al. 2017), and identified misconceptions (e.g., Kane et al. 2015; Tabrizi et al. 2019). Further, the literature discusses different approaches to drive DT, e.g., through new roles and units like the CDO or dedicated DT units (e.g., Jöhnk et al. 2017; Raabe et al. 2020). In summary, we can separate technology-centric and actor-centric perspectives in DT literature (Nadkarni and Prügl 2021). Our focus is on the actor-centric perspective. Here, we see multiple connections to other domains and discussions within the information systems literature and beyond, e.g., around agility (e.g., Fuchs and Hess 2018), digital innovation (e.g., Nambisan et al. 2017), and digital intrapreneurship (e.g., Reibenspiess et al. 2020). Currently, we lack a thorough empirical understanding of the status quo of organizations' DT efforts. Thus, research may benefit from an overview of approaches reaching beyond single cases and individual success stories to gain insight into research gaps in the theory.

#### **Organizational Change**

Extant research increasingly embeds DT in a broader organizational change perspective to conclude that DT is an ongoing process due to the continuous development and adoption of digital technologies (Hanelt et al. 2020; Hinsen et al. 2019). This is to demarcate DT not only from previous IT-enabled change (Wessel et al. 2021) but from all other hitherto seen transformations (Hanelt et al. 2020). Established literature on organizational change distinguishes episodic change, i.e., change that is infrequent, discontinuous, and moves intentional from one stable state to the other (Lyytinen and Newman 2008; Romanelli and Tushman 1994) and continuous change, i.e., change that is ongoing, cumulative, and emergent, often occurring on a daily basis (Orlikowski 1996; Weick and Quinn 1999). In addition, emergent research claims for a novel form of organizational change behavior (Hinsen et al. 2019), because DT is conceptualized as a major organizational change and an ongoing process at the same time. In a similar vein, a recent case study investigating the patterns of change in DT strategies found these patterns to be continuous and incremental rather than discontinuous, which is contrary to the common understanding in IS research (Dang and Vartiainen 2020). Hence, Hanelt et al. (2020) question Levin's well-known, three-step concept for episodic

organizational change (unfreeze – transform – freeze). Instead, they argue that DT may classify as an episodic change without (re-)freezing because digitalization is an ongoing process. While Cummings et al. (2016) note that even Levin thought that "groups were never in a steady-state [but] in continuous movement, albeit having periods of relative stability or quasi-stationary equilibria", those periods of relative stability erode more quickly than before due to the constant flux in organizations' environment (Hinsen et al. 2019).

Based on the notion that DT knows no end state, the question is how organizations approach this novel form of organizational change. (Kossowski et al. 2020). Even though research starts to investigate DT in the context of organizational change (Hanelt et al. 2020), more research is required to understand the interplay. While empirical research in the context of DT provides several DT success stories (e.g., Hansen and Sia 2015), the organizations studied recognized that they have only reached milestones in a long journey and are currently on their way to the next transformation (e.g., Andersen and Ross 2016). With this in mind, far-reaching organizational change should rather aspire to achieve a capability for continuous change (Hanelt et al. 2020; Hinsen et al. 2019; Vial 2019). Consequently, researchers claim that organizations need to adapt their structures (Fuchs and Hess 2018; Nguyen et al. 2020) and organizational culture (Duerr et al. 2018; Hartl 2019) to foster continuous change. However, hitherto, we still lack insights about how DT and associated transformation efforts, e.g., AT and CT, contribute to enabling continuous change. Further, it remains fuzzy if organizations strive for an organizational mode that welcomes and enables continuous change during their DT. Thus, we see the need to elaborate on how to better integrate the findings regarding organizational change and transformations from previous literature with incumbents' current DT approaches and progress.

#### Method

To shed light on how incumbents currently engage with DT and how this affects their approach to organizational change, we conducted an exploratory in-depth interview study (Myers and Newman 2007; Schultze and Avital 2011). This helped us to gain a comprehensive overview of incumbents' DT realities. Inspired by the extant DT literature (Hanelt et al. 2020; Vial 2019) and our research in the field, we created a semi-structured interview guide. Specifically, we sought to nudge our interviewees to reflect on their DT approach, progress, and potential challenges as well as DT's influence on organizational change behavior. The first block comprised our explanation of the research topic to the interview partner (IP) as well as the IP's introduction to its position and organization. The second block focused on organizational change behavior. We asked for the prevalent understanding of organizational change and how it differs from the past and the expected future. In the third block, we investigated how organizational change unfolds in the context of DT. We asked how our interview partners (IPs) define and manage their DT, what their biggest challenges are, and how DT affects their organization's change behavior. We identified appropriate IPs from our industry network and through cold calling via the professional network that met two requirements: First, to ensure an appropriate yet diverse interview scope, we included experts from the fields of either digitalization, IT, strategy, or innovation. Second, we selected IPs that drive DT by being responsible for overarching DT programs or by contributing to DT in specific DT initiatives. Thus, we expected IPs to share a broad understanding of their organizations' DT efforts. Hence, our sample includes mostly IPs that hold leadership positions in various industries. In total, we conducted 28 interviews with 29 IPs from 25 different organizations within the scope of our research objective between November 2020 and February 2021, i.e., we had one interview with two IPs at the same time as well as six interviews with two IPs from the same organization, respectively. The interviews were typically scheduled for 90 minutes and lasted on average 85 minutes (excl. the introduction of all participants). This indicates that we often delved into a lively and intense dialogue with the IPs following our semi-structured interview guide. With only one face-to-face exception, we interviewed all IPs virtually via Microsoft Teams. We recorded all interviews with our IPs' consent for subsequent analysis. To include multiple perspectives already during data collection, at least two members from our research team were by default present in the interviews. Our IPs represent various organizational contexts as the responses differ regarding their DT progress, industries, organization, sizes, and roles. This allowed us to better contextualize and abstract our findings regarding our research question. Due to this variety, we discussed the organizations' DT progress against the backdrop of the five-stage maturity model of Berghaus and Back (2016) to indicate the respective context of our IPs' answers (see Table 1).

#	Job Title	Industry	Employees	Revenue (EUR)	DT progress <sup>1</sup>
1	Chief Financial Officer	Clothing	> 1,000	< 1 bn	Stage 2
2	Area Manager	Retail	> 100,000	> 50 bn	Stage 2
3	Senior Account Manager	Technology	> 100,000	> 50 bn	Stage 4
4	VP Strategy & Governance	Mechanical Engineering	> 10,000	> 1 bn	Stage 2
5	VP IT	Mechanical Engineering			
6	Head of Digital Solutions	Medical & Hygiene	>10,000	> 1 bn	Stage 2
7	Senior Specialist Digitalization	Banking	< 1,000	> 50 bn	Stage 2
8	Head of Business Development	Banking			
9	Engagement Leader	Consulting	> 10.000	>10 bn	n.a.
10	Managing Director	Mechanical Engineering	< 1,000	< 0.1 bn	Stage 2
11	Chief Marketing Officer	Banking	> 50,000	> 1 bn	Stage 3
12	Chief Information Officer	Retail	> 100,000	> 10 bn	Stage 2
13	Head of Digital Business	Optics & Optoelectronics	> 20,000	> 1 bn	Stage 2
14	VP Business Unit	Optics & Optoelectronics			
15	Chapter Lead	Telecommunication	> 100,000	> 50 bn	Stage 4
16	Chief Information Officer	Insurance	> 10,000	> 1 bn	Stage 3
17	Head of IT, HR, and Legal	Construction	> 1,000	< 1 bn	Stage 2
18	VP Innovation	IT	> 100,000	> 10 bn	Stage 3
19	Director Chief Digital Office	Technology	> 100,000	> 50 bn	Stage 3
20	Director Customer Process Excellence	Insurance	> 100,000	>50 bn	Stage 3
21	Head of Digital Business	Mechanical Engineering	> 1,000	< 1 bn	Stage 2
22	Director Customer Experience	Office Furniture	> 10,000	> 1 bn	Stage 2
23	Managing Director & Owner	Construction	> 1,000	> 1 bn	Stage 2
24	Head of Innovation	Construction			
25	Chief Digital Officer	FMCG	> 1,000	< 1 bn	Stage 4
26	Head of IT Transformation & Strategy	Insurance	> 100,000	> 50 bn	Stage 4
27	Director Strategy	Automotive Industry	> 100,000	> 50 bn	Stage 4
28	Head of Data Assets & Analytics	Life Science	> 50,000	> 10 bn	Stage 4
29	Senior Vice President	Aircraft Equipment	> 1,000	< 1 bn	Stage 2

Stage 1: Promote & support | 2: Create & build | 3: Commit to transform | 4: User-centered & elaborated processes | 5: Data-driven company (Berghaus and Back 2016)

Table 1. Overview of the Interview Partners

After data collection, we analyzed the interview recordings. First, we transcribed all interviews using an AIbased solution (HappyScribe) with subsequent manual editing to ensure transcript quality. Second, we coded the interviews using MAXODA. Due to the explorative nature of our research question, we chose an open coding style without imposing any predefined categories from theory on the data (Saldaña 2013). We aligned our coding procedure and found a common understanding of the data by jointly coding three interviews at the beginning as well as weekly discussions on the coding progress. Thereby, we paid attention to adopt a common approach and similar coding style by reviewing our open codes. In addition to the open codes, we used comments to summarize key statements and note emerging ideas for later analysis. Open coding the interviews resulted in 2,973 different codes, i.e., codified statements. Third, we used theoretical memos to explicate and consolidate recurring topics of concern from our interviews. Thereby, we used the major blocks of our interview guide to categorize these topics. This step resulted in a total of 81 memos. For example, one memo consolidated all statements regarding the changing role of leadership. We clustered the statements into three groups, i.e., the relevance of the topic, different expressions of the topic, and links to other topics. Due to the explorative nature of our study and the vast amount of collected data, we focus on the key topics and challenges of our IPs in the findings section. Beyond our initial endeavor to investigate DT and its impact on organizational change, our interviews and the subsequent analysis have brought to light that DT initiatives are accompanied and heavily interrelated with an AT and CT. Accordingly, we use DT, AT, and CT as the main constructs to cluster our findings.

#### Results

We structure our results into four major subsections. Subsections 1 to 3 summarize the key topics regarding DT, AT, and CT. Finally, Subsection 4 describes the relationships among DT, AT, and CT as well as their impact on organizational change.

#### Digital Transformation

Our IPs mentioned many different ambitions they pursue with their DT endeavor. In the following, we illustrate the consolidation of the most important ambitions, i.e., the development of customer-centric business models, the exploitation of the potential of technology and data, the adaptation of the organizational setup, and the strategic planning for implementing the digital transformation.

Client-Centric Business Models. The ongoing digitalization contributes to ever-new opportunities to satisfy individual customer needs. Due to the seamless, client-centric experience provided by leading IT companies, like Amazon, customers will no longer accept offerings that do not meet their individual needs. Thus, also organizations in non-IT industries, like life science, retail, and insurance, need to provide the same experience. "Customers need to tailor their problems to the products we deliver. That does not work anymore with digital products. You have far too many providers." (IP6) It is important to deeply understand the customer's problem by first asking questions. Therefore, collecting and analyzing data is the basis for becoming client-centric. "Forward-looking organizations have understood who their customers are. They have taken them seriously as market participants, i.e., communicate at eye level, and then built an ecosystem that keeps them satisfied such that they buy more and more products, services & benefits." (IP11) Thus, customers are no longer an external party but collaborative partners who are involved in development processes through continuous and fast customer feedback. Consequently, organizations build business models which put customer needs at the center to quickly adapt to changing needs. Beyond that, our IPs report the challenge of the enormous speed at which digitalization is changing the business environment requiring them to adapt their business models quickly to remain competitive. "Another difference in digital transformation is the speed. That's not because of how organizations are transforming digitally right now, that's because of how markets are changing right now." (IP20) That means organizations must rethink their existing business models and be open to thrive for new markets and segments and even re-evaluate who their customers might be in the future. While some organizations already exist for decades and their business models generate revenues over long periods, these organizations must get used to developing business models much faster than before due to market dynamics. "I think we have to say goodbye to the idea that we will have such cash cows again over this mega long period [...] Instead, we have to prepare the organization to be able to bring products and services to our customers faster." (IP19)

**Technology and Data.** To enable client-centric business models, our IPs emphasize the roles of technology and data to leverage internal and external potentials. The usage of technology and data supports the exploitation of automation potentials of processes within organizations to increase efficiency and speed as well as reduce costs. "We use digitalization where it helps us to improve our customers and increase efficiency" (IP2) In the course of process automation, organizations try to simplify and digitize processes to relieve employees of repetitive tasks so that they have more time and space for creativity. This also facilitates the quick response to changing customer needs and, thus, technology and data enable the creation of clientcentric business models. Thereby, our IPs understand data as one of the key drivers for DT to better understand internal operations and performance as well as market trends and customer needs. "The people who do business for money only, and they do not generate revenue out of online significantly, forget about it.[...] Generating consumer empathy, leveraging data and technology, and harnessing the power of data. [...] Data is the new oil." (IP1) Internal utilization of data focuses on being able to take data-driven decisions and to increase the measurability of organizational performance. Based on their purpose and derived strategy, many of our IPs define measurable strategic objectives. "The trick is to make everything measurable." (IP12) Even though the importance of a company-wide, harmonized database is recognized to properly measure organizational performance towards the defined strategic objectives, many IPs still struggle in this area. Due to complex processes, data silos, and manual process steps, data collection and analysis are impeded. "Many people are currently being painfully shown that they are not managing their business in a data-driven way." (ID 12) Only one IP confirmed that their data management is competitive,

having implemented data management decades ago but now facing the challenge of identifying appropriate analytics approaches to better understand their customer behavior and needs. The required data harmonization goes hand in hand with the harmonization and standardization of the IT landscape. Complex IT landscape and existing legacy systems still impede flexibility and fast responsiveness as well as building platforms to integrate new partners into the IT infrastructure. "We know that we need a platform. We must chase all the data across a platform. Huge fight. Every country has built its own solutions. There is nothing that is really centralized." (IP6) The ability to scale one's IT infrastructure is a key factor in building partner ecosystems to develop new business models and deliver client-centric products. To be able to react quickly and flexibly to rapid changes, a harmonized database and IT landscape are essential. Without a proper understanding of the organization and business environment, DT will only stay a buzzword that does not support organizations in fulfilling their self-defined purpose. "Many organizations today are struggling with understanding what happens in their business [...] If these senior executives can't become real where they are, digital transformation becomes a buzzword." (IP1)

**Organizational Setup.** Across all interviews, we observe different approaches to how organizations approach DT regarding the chosen organizational setup, i.e. patterns regarding the driving units for DT. More than half of our IPs reported that they have established a dedicated digital unit outside of their IT unit to drive DT or are currently planning to do so. In cases where the corporate structure consists of many different, independently operating business units, the digital unit is anchored right under the Executive Board. In this setup, the digital unit both drives overarching digitalization projects with Executive Board support and works with the business units to implement digital initiatives derived from their strategy. In some cases, it even supports the development of the business units' strategy. In some organizations, there is not only an overarching digital unit but also a digital unit within each business unit that reports to the overarching one. In another scenario, the digital unit is deeply anchored within an organization's business area and drives digitalization within that business area by defining the digital strategy and working together with the IT unit. In this scenario, the digital unit either develops MVPs of digital products in an agile setup and hands them over to the IT unit, or the digital unit is completely responsible for developing and operating all client-facing digital products. In the latter, the IT unit only focuses on the development and maintenance of the basic IT infrastructure. Beyond these two main scenarios, we observed one setup in which the digital unit operates completely independently from the general business to develop disruptive products apart from the current product portfolio to support the overarching growth strategy. In addition, three of our IPs established a digital unit to focus on specific digital topics, like data analytics, but not on driving the overarching DT. Rather the IT unit is the main driver of DT in these organizations like described by six further IPs without any established digital unit.

**Strategic Planning.** Further, we observe two different approaches to strategic planning as a means for DT execution. First, organizations develop a corporate purpose or vision to derive an overarching business strategy from which strategic measurable objectives or digital roadmaps per business unit are determined. "From our purpose, we have derived our strategy, which consists of various pillars. [...] From those pillars then the projects or the project portfolio are derived." (IP28) In some cases, DT thus was not defined as a dedicated program, but digitalization was inherent in the derived objectives or digital roadmaps. As one IP highlighted, the term digital transformation leads to resistance in many employees due to associated insecurities and falsely indicates that DT has a dedicated end. "We haven't defined a concrete term because we're not trying to run it as a project. I do not think much of a CDO, who is there for four years and then he's gone. From my point of view, a continuous process is necessary." (IP12) This contrasts with the second approach in which DT was established as a dedicated program to create a common understanding and to act as an enabler or even an accelerator of the business strategy. "We have this huge digital transformation program. It is linked to our main strategy. It's an accelerator for the whole strategy." (IP28) Regardless of the approach of integrating DT into their organizational structure and strategic planning, many of our IPs understand DT as an ongoing process without a precise end and strive to embed DT as an integral part of the organization to continue living digitalization in the future due to ever-changing digital technologies. "Digitalization is not a one-off thing, [...] It's now a program to make it visual, to work on it at full throttle, but it will never stop." (IP28)

#### Agile Transformation

Our analysis constitutes that our IPs strive for establishing new ways of working and collaboration in teams or even in the whole organization. Thus, we see that organizations initiate an AT to set up their development

teams in agile structures or even transform themselves company-wide into interdisciplinary teams. This development goes hand in hand with new decision-making processes in which managers hand over their control to subject matter experts who must be willing and able to take on end-to-end product responsibility. To flourish this development, both new incentive structures need to be defined and an engaging work environment needs to be created. In the following paragraphs, we provide more details on decision-making processes, incentive structures, and the work environment.

**Decision-Making Process.** While decisions were traditionally taken top-down, the complexity and speed of today's business environments raise the need for novel approaches. Many of our IPs struggle with slow decision-making processes because decisions are often taken by managers without the necessary knowledge. "When you look at digital leaders, they understand that the world is getting increasingly complex. [...] And therefore, leadership needs to emerge with skill and capabilities. If this happens to be a 24-year-old girl from India who understands AI, then she becomes the leader of the day" (IP1) In general, organizations strive for more democratic and decentralized decisions. While long-term decisions should be based upon discussions that are informed by a diverse set of perspectives and the knowledge from domain experts and customer-facing employees, product-related decisions should be taken on an operational level by subject matter experts. Thus, organizations recognize that they need to empower their employees, i.e., giving authority and setting a framework to guide those decisions. "It is no longer a head of a department who decides, but the decision-making responsibility for the progress, the MVP, the product, the application route, is handed over to teams, using swarm intelligence," (IP20) Establishing new decisionmaking processes requires employees to cultivate entrepreneurial thinking so that they can assess the benefits and risks of specific options and have the courage to act. Entrepreneurial thinking goes hand in hand with the mindset to serve the customer. "I have to empower my organization, no matter at what level, so that in case of doubt it is always questioned: Is this a good thing for the organization?" (IP4)

**Incentive Structures.** To encourage the willingness to take on the end-to-end responsibilities and make decisions as well as to drive entrepreneurial thinking, proactivity, and the ambition to explore, our IPs look for novel incentive structures. "Make sure that they adopt new technologies. And how do you make them adopt new technologies is to encourage them, to incentivize them, and to make a learning organization." (IP1) However, defining an appropriate incentive structure remains a challenge. We observe that one way to incentivize employees to take on responsibilities is by defining clear personal goals together with their direct leader. Thereby, employees know what is expected from them, "The second is incentives. We always have employee reviews. So, they know very clearly what the goals are. The goals are communicated and written down. This is also linked to the incentives. Each person has his or her natural inclination to somehow get hold of the incentives and then to fulfill his or her role and responsibilities." (IP3) Another approach observed aims at aligning incentive systems with the performance of the team rather than the individual. Instead, employees are not incentivized based on their individual performance but their personal development. "We measure performance at the team level through the achievement of the Objectives and Key Results. And we measure performance at the individual level based on 360-degree feedback. This means that we are not so much interested in what an employee must deliver on which project. That is irrelevant for us. Our sport is a team sport." (IP12)

**Work Environment.** Since the environment can either support or hinder certain behaviors, we recognize across our interviews that creating a good work environment also includes spatial structures that foster a creative and collaborative setting, which is especially important for agile settings. "You also have to create the spatial environment that you can be agile." (IP10) In addition, in times of global teams, COVID-19, and the ongoing emergence of remote work settings, by working from anywhere, the question of how employees can most effectively work together and how organizations can create an engaging and motivating environment is a huge concern. "Mixed Presents. So, what does it mean that we work together in such hybrid forms, partly physically in a room, but also integrating team members who are only connected virtually? How do we manage to be at eye level, to make people feel like they belong? These are sometimes very subtle things." (IP22) An engaging environment allows employees to have more fun at work, which also promotes employees' creativity, flexibility, and openness. "It may sound strange now. Fun at work is also essential. I can only do what I like to do. That's an important aspect. The workplace equipment is part of it." (IP15)

#### **Cultural Transformation**

Without a suitable mindset, our IPs expect that neither the best strategy, nor governance, processes, technologies, or tools may be enough to leverage the potential of the transformation efforts of DT and AT. Thus, the CT must aim to develop a work environment nourishing the appropriate mindset. "There are certain structures and processes that have evolved. But you always find people in the organization who want to do something [...] You can get people together and make progress with innovations if you want to. But it has to be supported and wanted from the top." (IP21) In the following paragraphs, we present the most important components of the CT for our IPs.

**Leadership.** Our IPs agree that leadership is the most important stakeholder in today's transformation and that a change in the understanding of leadership is at the same time the biggest obstacle and facilitator on the journey towards an organization that enables and welcomes continuous change. "We have to see ourselves as a team, be results-oriented, and focus on the task at hand and not on the origin of the organizational unit. It starts with managers, letting go of silo thinking, and working together in a different way. And to unlearn one's own ego and assertiveness from the top down." (ID 2) Accordingly, we observe that a new definition of leadership is necessary. Leaders increasingly focus on providing strategic direction, empowering employees, taking care of their needs, removing impediments, moderating decision-making processes, giving new stimulus, and acting as motivators and coaches. Furthermore, the role as a communicator and role model was stressed across our interviews since leaders transfer corporate values to employees and, thereby, shape the corporate culture, especially in those organizations that we classify as more digitally mature. "You then saw who the real leaders are. Those who take care of their teams, who know what's going on, who have a good influence." (IP9) By filling this role, leaders enable employees to act out their intrinsic motivation, be curious to explore new technologies, and take the initiative to drive change and at the time design a work environment ensuring that employees' ambitions fit the overall organization's goal. "So, I am convinced that you must create this space. That is the role of the modern leader." (IP15) In general, our IPs state that intrinsic motivation is more important than specific skills since skills can be taught, and intrinsic motivation not. "It's not so much the qualifications. It's the motivation that's decisive." (IP15) However, the new definition of leadership often goes hand in hand with the removal of hierarchy levels to take up speed. This change often leads to resistance and lack of support by the middle management due to power loss. "If you have people sitting there who are very attached to their power and who don't allow any changes, because, with any change, I usually give away power, then the things are mostly doomed to fail." (IP6) Many of our IPs initiated huge leadership training to fill the knowledge gap of DT because lacking the knowledge impedes the leadership to define appropriate strategic direction for the whole organization. "We have challenges with both technological topics and topics of cultural change, And we have invested a lot to get all the managers at my level on the same page," (IP14)

**Psychological Safety.** Another aspect in the context of leadership is the provisioning of psychological safety, i.e., a promise to care about employees. While innovation is about creativity and exploration, we recognized that change and digitalization are connotated with fear and uncertainty, which employees usually try to avoid. While the change in the past was mainly driven by a "burning platform", i.e., pain, we conclude with one of our IPs that continuous change cannot be driven by persistent pain but desire. "If you have chronic pain, your capacity is impaired, no matter what pain is added. And you must have really bad pain if at all, to perceive it somehow. [...] I think in today's world with all the changes, a strong purpose is the only thing that somehow holds you together as an organization." (ID9) However, to emphasize change without fear and stimulate creativity and exploration, organizations need to create secure conditions. Only when employees feel secure, they can think openly and come to novel outcomes that go beyond a way out of trouble but lead towards a certain direction. "And in the end, they couldn't find anything in their data except the issue of Psychological Safety, which means people can be who they are, don't have to hide or be afraid of being judged." (IP9) By providing a safe work environment, employees are encouraged to question the status quo, which is necessary for a dynamic environment, as no organization is immune to disruption. "Even if I say this process is the ultimate [...] If I don't keep questioning, because I keep getting new opportunities, I stand still as an organization and will also disappear from the market at some point." (IP5)

**Cultural Values.** Our IPs emphasize that they need a culture of trust and a new failure handling, i.e., a better failure culture. Trust becomes more important because work happens more independently, and the focus is more on the outcome than on activities. One of our IPs claims that organizations have hierarchies

because they do not trust their employees. However, hierarchies slow down organizations. Thus, without trust, organizations waste the potential of their employees and speed, which they need in today's competition. "I do believe that topics like respect or trust will not go away as a core element for the future of an organization." (IP12) Failure culture describes an environment that fosters experimentation and learning and consists of a novel attitude towards dealing with unfavorable outcomes. This topic raises major concerns in organizations that are traditionally driven to avoid errors and risks under any circumstances. e.g., banking and insurance. "Nevertheless, we now do this process every year. [...] we're slowly approaching this topic step by step – daring to do something, trying something out. Of course, it's not a matter of investing millions in budgets, but [...] you can see that it doesn't correspond 100 percent to people's culture, that it's always difficult to say, I've tried something new and it didn't turn out to be the best idea in the world, it just turned out to be useless." (IP7) While those areas of zero-failure tolerance remain in certain parts of those organizations, they need to accept, create awareness for, and moderate subcultures when they strive to develop digital products.

#### The Transformation Triad to Foster Continuous Change

From our interviews, we corroborate that organizations conduct DT to remain competitive in today's hypercompetitive business environment. Since DT is an ongoing phenomenon, it requires much more than the ability to adopt digital technologies for internal operations and build client-centric digital products. "Digital transformation is the first transformation that also affects the organization itself. This is something new about the digital transformation, it has allowed IT mechanisms to find their way into conservative areas of the organization." (IP20) That means technology is only one part of the transformation journey. "One is the technology that we can use. More or less everyone has the same prerequisites. What will make the difference are the employees. How they interact with each other, how they can work." (IP15) Consequently, the sole adoption of digital technologies is not sufficient. Rather, pioneering organizations also simultaneously conduct an AT. With their AT, our IPs aim to enable teams to develop client-centric products in shorter iterations and with increased speed to facilitate the DT endeavors. Like DT, AT is understood as a continuous change. "So, the journey, the agile transformation, it's continuous." (IP15) Our results show that there is a difference between 'doing agile', i.e., implementing new roles and decision processes, and 'being agile', i.e., having the necessary mindset and culture. Although many organizations have already implemented agile practices, the shift towards 'being agile' has so far clashed with existing structures and cultures.

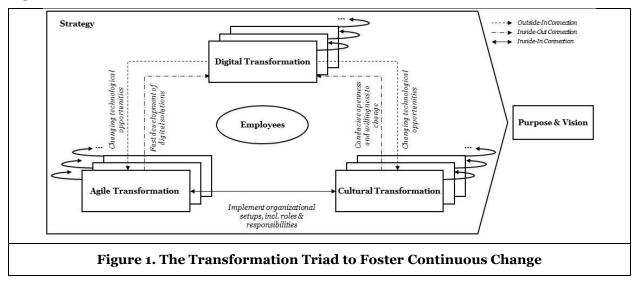
Therefore, the intensified use of digital technologies and a new way of working and collaboration require a CT to create a new mindset among leaders and employees. "The fourth pillar is cultural change, i.e., how do we create a culture that supports the whole thing. [...] Creating a culture that is open to change and successfully supports it." (IP21) While leaders must accept to give up control due to new decision processes, employees must be willing to take on the responsibility. Furthermore, client-centric business model development requires an end-to-end product responsibility and, thus, breaking down silo thinking. The role of leaders, employees, and functional silos highly depends on organizations' culture. Consequently, CT builds the foundation for DT and AT and, thus, accompanies them. However, CT is perceived as the most difficult transformation by our IPs. "That's one of the problems we're facing. This transformation is not just a digital transformation but also a cultural one – and the cultural one is much more difficult than the digital one." (IP12) Regardless of the challenges that a CT entails, most of our IPs highlight the importance to set up a culture which puts employees in the focus of all transformation efforts and enables them to continuously change "If the human being is the flexible organ, the learning organ, you can do all that. So, I just need the people." (IP26). According to our IPs, CT is essential for continuous change. "That means constant change is necessary and if you are not constantly changing, then you will not be able to survive in the long term. But constant change requires an open mindset and that's why we have focused on culture." (IP12) Consequently, CT is seen as interrelated with AT and DT by our IPs. Organizations must develop equally on all levels, i.e., DT, AT, and CT, to enable continuous change. "I believe that all levels can only be driven forward in interaction with the other topics. I can't proclaim cultural transformation alone. [...] If everyone works in silos and the incentives are different or they have never seen anything from other departments because there is no end-2-end responsibility, then it doesn't work. It has to work across all levels." (IP26) In summary, integrating DT, AT, and CT, i.e., the transformation triad, provides the foundation for continuous change.

However, living continuous change requires great effort from employees, especially in dealing with risks and uncertainty, which often leads to resistance from employees. In this context, our IPs emphasize the importance of a target picture to excite people and reduce potential resistance. "One success factor is the attractiveness of the target state, and attractiveness has something to do with visionary. How innovative is it? How inspiring is it for me as an employee?" (IP20) Considering that the target picture of the transformation is not stable but subject to constant change, our IPs highlight corporate values, purpose, and an inspiring vision as reinforcing tools to guide employees. While values and purpose provide guidance and drive to identify the most appropriate opportunities in an era of unprecedented technological possibilities, a vision provides stability. "It's becoming more important because things are changing faster and so people need orientation. Such a vision and purpose give orientation." (IP23) Thereby, strategic planning becomes even more relevant. Whereas purpose provides the content-related frame and serves as a North Star for organizations, the strategy directs organizations towards the purpose. "The purpose provides the framework. [...] This is the North Star, around which it is all about. The whole thing must be filled with life, with concrete strategies, with projects." (IP27) Many of our IPs mentioned a three-year review cycle for their strategy with intervening updates as needed. So a purpose is much more stable than a strategy. "The topic of strategy is one that we scrutinize every three to five years at the highest level, and much more frequently below that. We always try to take up the recent challenges, translate them into a crisp target picture, and generate motivation by saying: Look, this is the direction we want to go." (IP14) In this context, leadership takes over a key role to manifest the corporate values, purpose, vision, and strategy into the roots of the organization. Leaders must communicate them consistently throughout the organization to ensure a common understanding, and they must model them so that employees accept them and use them as a guide. In summary, all of the transformation initiatives our IPs are currently undergoing are just the initial spark to begin a journey of continuous change that will help them succeed in an everchanging business environment. "Absolutely. That is a mindset, to get in motion, to lose the shyness of change. I don't know why, but change is somehow perceived as evil. But it's not that way at all. Change is the essence of progress. Once you realize that you precisely get these little plants that are now sprouting." (IP15)

#### **Discussion**

Overall, DT as umbrella term concerns all investigated organizations. While the individual foci of organizations differ, we observe generic patterns across all organizations. For example, we have seen organizations develop new business models because they have noticed that customer-centricity is becoming increasingly important to remain competitive. However, most organizations struggle to increase their efficiency by automation due to their complex IT and process landscapes and lack of data governance. Our study shows that, contrary to the typical motivation in the literature, i.e., the challenges of digital technologies, technology is not the only concern. In our interviews, an actor-centric perspective predominates, i.e., our IPs are primarily concerned with the novel role of customers as equal partners (external) and the expected role of employees as decentralized decision-makers (internal). Further, in most organizations, it is not the lack of knowledge that hinders DT but the mindset of employees, irrespective of their role or hierarchical level. To cope with rapid environmental change, organizations must engage their employees in flexible structures and create a culture that enables change. Accordingly, instead of a one-time DT sprint, organizations must brace themselves for a marathon. Our findings indicate that practitioners understand DT as an ongoing process that requires an organization's capacity for continuous change, emphasizing recent conceptualizations of DT (Hanelt et al. 2020; Hinsen et al. 2019; Vial 2019). So while practitioners today struggle to define a clear and enduring target state, they should instead figure out what they need to do to continuously adapt to rapidly changing challenges.

Based on our interview analysis and outlined findings in the results section, we derive the transformation triad of DT, AT and CT to enable continuous change (see Figure 1) which we will describe in the following. New technological opportunities bring constant change to the organization (outside-in perspective) and, thus, trigger organizations to strive for continuous change due to their ever-evolving nature. However, DT alone will not enable organizations to cope with these challenges. Rather, our results emphasize that the continuous adoption of new technologies requires flexible organizational structure and processes as well as a new culture supporting an open and flexible mindset. Thus, DT is accompanied by AT and CT to enable the necessary adaptations of organizations' internal setup (inside-out perspective). Organizations must empower employees to better utilize digital technologies and to develop client-centric digital products at increasing speed. With the AT, they want to introduce new working and collaboration methods to improve their overall responsiveness and accelerate the development of digital products. Without this, organizations limit their ability to exploit the potentials of technologies at an accelerated speed and thus the benefits DT brings about. In addition, CT helps on the path to a culture of trust, where employees can live out their intrinsic motivation and entrepreneurial thinking and challenge the status quo. As a result, CT is creating a new mindset among employees that fosters creativity, flexibility, and openness to new technologies, and encourages them to experiment and develop new digital solutions. Across our interviews, we observe the emphasis on taking employees the fear of any negative consequences if they fail when experimenting with new technologies. Like the lack of the potentially positive impact of AT, a culture of fear and tight control can limit the benefits of DT if employees resist using the new technology. As both AT and CT primarily focus on organizations' inner workings (inside-in perspective), they also mutually enable (or restrict) each other, as well as restrict DT. As our findings show, many organizations are seeking new decision-making processes and incentive structures to promote agile working. Thus, organizations transfer responsibilities from the top and middle managers to employees with in-depth knowledge. This requires employees' willingness to take responsibility and make decisions. However, this can only happen if a culture of trust prevails and employees feel a sense of safety that they can make wrong decisions without having to expect negative consequences. Without this cultural setup, neither adaptations through AT nor the opportunities through DT will be fully exploited. Thus, all three transformations are interrelated so that the success of each transformation is bound to the progress of the other two. In addition, we propose to place the individual employee at the center of these interrelated transformations. Our findings show that organizations are keen to enable their employees to respond more flexibly to new technological challenges arising from digital transformation by giving them more responsibility and decision-making power (AT). Further, organizations establish a different culture to encourage this flexible way of working, because ultimately it is the employees who need to be open to experimenting with new technologies. Consequently, employees constitute the biggest driver and obstacle at the same time. Our findings provide a potential explanation for Dang and Vartiainen's (2020) assertion that technology plays an important role in DT but people are the engine for the transformation.



With our understanding of the interrelation of the transformation triad and due to their ongoing nature, we find that all three transformations play a key role in enabling continuous change. However, to leverage the full potential, organizations need to make sure that their employees understand the necessity and direction of change. Thus, organizations increasingly often try to (re-)define their purpose and vision as attractive North Stars that provide orientation and pull their employees in one direction. This makes sense because purpose and vision remain unchanged over longer periods and, thus, provide stability and shared values for employees in times of continuous change (Venus et al. 2019). Furthermore, a common long-term goal has the potential to overcome silos and foster collaboration, which is especially important for incumbents. Accordingly, we recognize that leading organizations increasingly derive their business strategy from their purpose, vision, or values. While in the past, organizations set up long-term strategies with a focus on economic growth, today, due to the hyper-dynamic business environment, strategies become short-term action plans that are aligned with their purpose. Thereby, the purpose of the derived strategy not only gives employees the framework in which they can operate, but also the freedom to act out their intrinsic motivation and entrepreneurial thinking to contribute to the overarching economic success of the organization.

#### Theoretical Contribution and Future Research Opportunities

**The Transformation Triad.** We observe that DT is accompanied by AT and CT initiatives to address this challenge. While existing research already emphasizes the interrelations between DT and AT (Fuchs and Hess 2018) and between DT and CT (Hartl 2019), literature that examines these interfaces is still scarce, especially for the role of CT (Nadkarni and Prügl 2021). Thus, the contributions of our work are threefold: First, in contrast to existing research, we draw on a broad empirical investigation of incumbents across industries to better understand the underlying connections and equivalent relevance of the three ongoing transformations for continuous change. Second, following our actor-centric focus, we explicate the challenges that organizations face during their AT, i.e., the difference between adopting agile methods (doing agile) and incorporating as well as scaling agile values and an agile mindset (being agile). Thereby, we extend existing research, which already claims that DT needs to be a synthesis of organizational agility, change commitment, and digital orientation (Nguyen et al. 2020). Further, our results show that change commitment is not enough, and we provide additional insights on what kind of organizational culture organizations should foster to support their AT and DT efforts. Third, by addressing the roles and incentives of individual employees, middle managers, and corporate leadership, we provide indications about existing challenges and tensions in organizations' AT. Overall, our findings not only shed light on what it means to have an organizational culture that encourages DT exploration, but we also outline the mechanisms why the still-prevailing structures and risk-averse, silo-based mindset of organizations hinder AT. In conclusion, the utilization of digital technologies to develop client-centric digital products requires organizations to rethink their ways of working and corporate culture. If organizations do not address these two aspects in line with DT, they will hinder the realization of the full potential of digital technologies. Only by understanding this interrelation, the overall transformation to a continuously changing organization will be successful. While our research provides a high-level overview, we still lack a deep understanding of the underlying mechanism between CT, AT, and DT. Therefore, we propose to dive deeper into this topic and investigate these mechanisms, especially in the context of large-scale AT, given the lack of empirical research in this area (Dikert et al. 2016).

**Employees at the Core.** Our findings show that organizations identify their employees as the most important driver and barrier for change and, thus, put them in the middle of their DT efforts. Hitherto, DT literature mainly addresses this topic from a top-level perspective, i.e., the strategic role of a CDO (Singh et al. 2020; Tumbas et al. 2017) and the necessary commitment (Nguyen et al. 2020), and capabilities of decision-makers (Kane et al. 2019). Our observations fully underline those aspects but also indicate that this is not enough. According to the increasing speed and complexity of the business environment, organizations need employees close to the customers. However, the importance and role of individual employees above top management have been mostly neglected so far (Nadkarni and Prügl 2021). Thus, our results provide a new perspective on the roles of employees within the context of DT and the aspired target of continuous change. While existing research in other disciplines already elucidates the importance of employees in the context of DT (Gale and Aarons 2018), our results show that the role of middle managers and employees fundamentally changes. Further, we provide insights on what expectations organizations have towards their employees regarding the ability to drive continuous change. While our results provide a shallow understanding of the relevance of individual employees, their roles, and the underlying connections between different organizational levels, future research should dive deeper and examine how people can become the engine of organizational change. For instance, the DT community might profit from digital intrapreneurship literature to gain insights on how individual employees can drive DT and become a source of intentional continuous change. Further, our findings support Venus et al. (2019) who claim that a vision of change needs to be a vision of continuity such that employees have something that provides psychological safety. However, in contrast to the assumption of Venus et al. (2019). organizational culture and identity cannot be such factors of continuity within organizations' DT efforts (Wessel et al. 2021). Accordingly, we observe that organizations seek other factors that provide continuity, attractiveness, and direction. While attractive visions inspire people, our results show that product- and

competitor-related vision statements may not provide long-term guidance in times of continuous, and often even disruptive, change. Within our results, we find indications that long-neglected and ridiculed concepts like purpose, vision, and values may provide direction, ambition, and continuity for organizations' cohesion in the future.

**Purpose, Vision, and Values.** Finally, all those transformations are only a means to an end. i.e., to fulfill the organization's purpose. As our findings show, the business strategy is derived from the purpose and detailed out by measurable objectives to give direction. Our findings depict that this approach does not inevitably result in the definition of a DT strategy, as it is recommended by prevalent research to coordinate and guide DT (Hess et al. 2016; Matt et al. 2015), but rather digitalization becomes more an inherent part of the overall project prioritization. Organizations evaluate those projects against their purpose to ensure that only such projects are conducted that contribute to its fulfillment. Since, we only received high-level insights on the procedures of how organizations approach strategy derivation and project prioritization without the definition of a DT strategy, future research should focus on more in-depth case studies to evaluate different procedures and to compare them with the existing research body. Further, while purpose has been associated with shareholder value for a long time, we observe that organizations and their employees increasingly often seek a purpose beyond money, i.e., to have an impact on their customers or society. While this might sound like an interesting topic for organizational studies, our results show that organizations often seek short-term benefits and, thereby, neglect those projects that build the foundation to leverage the full potential of digital technologies, e.g., harmonization of the IT infrastructure. However, hitherto, we lack insights on how purpose and values interact with the progress of organizations' DT effort, their competitiveness, and sustainability. Future research should examine whether there are differences between organizations that seek to maximize shareholder value, the longevity of their organization, or a deeper sense of purpose for society, and how these decisions affect the long-term motivation of their employees, their capacity for continuous change, and economic KPIs.

#### **Practical Implications**

Our results are also meant to support practitioners' DT. We show that they should not solely care about technology but rather their employees who need to understand, leverage, and develop the technology. Further, by bringing DT, AT, and CT together, we enhance the understanding of the different transformations' roles. Additionally, we provide valuable hints on what organizations, in general, do to rethink their ways of working, and what corporate culture they aspire to create an engaging environment. Practitioners can draw upon those insights and establish such ways of working and collaboration to foster their capability for continuous change, e.g., new decision-making processes and related incentive structures. These insights may help them to deploy their employees more effectively and create an understanding of different roles within the organization. Further, our research supports practitioners in their understanding of the increasingly important role of concepts that provide continuity and direction as a solid foundation for their DT journey. Thereby, they can (re-)define their corporate purpose, vision, and values in a way that does not only attract their employees' motivation but also provides a common understanding for the overall organizational goal. This, in turn, enables them to make better decisions for their DT strategy and individual projects.

#### Limitations

Besides its merits, our study is beset with limitations. First, there are inherent limitations to our research approach. While interviews provide the opportunity to take a deep dive and get to the roots of an issue, they are highly subjective in various ways, e.g., our IPs' understanding of DT, the interpretation of questions and answers during the interview, the coding process, and the synthesis of the codes. To limit subjectivity, we recorded the interviews such that we had the opportunity to listen to the statements and their context repeatedly. Further, we conducted various iterations within our research team to stay aligned against the background of the large dataset. Second, we acknowledge that interviews with other IPs within the same organization or other organizations might have led to different insights. Even though we tried to examine a diverse set of perspectives, i.e., different roles, organizations, and industries, our dataset cannot cover all possible perspectives and expressions. Third, our IPs are mainly from German organizations. Since our research approach addresses topics like organizational structures and culture that depend on the domestic heritage and organizational context, the worldwide validity of our insights may be limited. While we believe the overall contribution regarding continuous change to be valid also in a broader context, we encourage further studies from other countries to challenge our conclusions regarding the roles of AT and CT.

#### Conclusion

Organizations recognize that they must continually adapt to their ever-faster changing environment, whether that means new opportunities to create value or changing customer needs. In this context, organizations conceptualize digitalization as a continuous process that has no end. Although our study shows that continuous change is not new, the increasing pace of technological development leads to a permanent disturbance. While in the past organizations conducted profound transformations once in a decade, today the need to overhaul their organizations happens in much shorter timeframes. Accordingly, our results support the findings of Hanelt et al. (2020) that conventional change management may be outdated. Instead, due to the rising complexity, organizations emphasize the role of the individual employee to drive change bottom-up. Especially, for incumbents with established hierarchical structures and processes that are governed top-down, the switch towards an organization that welcomes continuous change is challenging. Thus, we propose that organizations must accompany DT with AT and CT. Finally, we call for a stronger focus on actor-centric challenges beyond technology-driven matters to better understand purpose-driven organizational identities that enable continuous change.

#### References

- Andersen, P., and Ross, J. W. 2016. "Transforming the LEGO Group for the Digital Economy," in ICIS 2016 Proceedings, Dublin: Ireland. December 11-14.
- Baivere, A., and Hukal, P. 2020. "Digital Disruption: A Conceptual Clarification," in HICSS 2020 Proceedings, Wailea: Hawaii: USA. January 7-10, pp. 5482-5491.
- Berger, S., Bitzer, M., Häckel, B., and Voit, C. 2020. "Approaching Digital Transformation Development of a Multi-Dimensional Maturity Model," in ECIS 2020 Proceedings, Marrakech: Morocco. June 15-17.
- Berghaus, S., and Back, A. 2016. "Stages in Digital Business Transformation: Results of an Empirical Maturity Study," in MCIS 2016 Proceedings, Paphos: Cyprus. September 4-6.
- Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., and Venkatraman, N. 2013. "Digital Business Strategy: Toward a Next Generation of Insights," MIS Quarterly (37:2), pp. 471-482.
- Bordeleau, F.-È., and Felden, C. 2019. "Digitally transforming organizations. A review of change models of Industry 4.0," in ECIS 2019 Proceedings, Stockholm & Uppsala: Sweden. June 8-14.
- Chanias, S. 2017. "Mastering Digital Transformation. The Path of a Financial Service Provider Towards a Digital Transformation Strategy," in ECIS 2017 Proceedings, Guimarães: Portugal. June 5-10.
- Chanias, S., Myers, M. D., and Hess, T. 2019. "Digital Transformation Strategy Making in Pre-Digital Organizations: The Case of a Financial Services Provider," The Journal of Strategic Information Systems (28:1), pp. 17-33.
- Cummings, S., Bridgman, T., and Brown, K. G. 2016. "Unfreezing Change as Three Steps: Rethinking Kurt Lewin's Legacy for Change Management," Human Relations (69:1), pp. 33-60.
- DalleMule, L., and Davenport, T. H. 2017. "What's Your Data Strategy," Harvard Business Review (3), pp.
- Dang, D., and Vartiainen, T. 2020. "Changing Patterns in the Process of Digital Transformation Initiative in Established Firms: The Case of an Energy Sector Company," PACIS 2020 Proceedings.
- Dikert, K., Paasivaara, M., and Lassenius, C. 2016. "Challenges and Success Factors for Large-scale Agile Transformations: A Systematic Literature Review," Journal of Systems and Software (119), pp. 87-108 (doi: 10.1016/j.iss.2016.06.013).
- Dremel, C., Herterich, M. M., Wulf, J., and Waizmann, J.-C. 2017. "How Audi AG Established Big Data Analytics In Its Digital Transformation," MIS Quarterly Executive (16:2), pp. 80-101.
- Duerr, S., Holotiuk, F., Wagner, H.-T., Beimborn, D., and Weitzel, T. 2018. "What Is Digital Organizational Culture? Insights from Exploratory Case Studies," in HICSS 2018 Proceedings, Waikoloa Village: Hawaii. January 3-6.
- El Sawy, O. A., Malhotra, A., Park, Y., and Pavlou, P. A. 2010. "Research Commentary —Seeking the Configurations of Digital Ecodynamics: It Takes Three to Tango," Information Systems Research (21:4), pp. 835-848.

- Fischer, M., Imgrund, F., Janiesch, C., and Winkelmann, A. 2020. "Strategy Archetypes for Digital Transformation: Defining Meta Objectives Using Business Process Management," *Information & Management* (57:5), p. 103262.
- Fuchs, C., and Hess, T. 2018. "Becoming Agile in the Digital Transformation: The Process of a Large-Scale Agile Transformation," in *ICIS 2018 Proceedings*, San Francisco: California. December 13-16.
- Gale, M., and Aarons, C. 2018. "Why people matter far more than digital technology or capital," *Strategic HR Review* (17:1), pp. 29-32.
- Gimpel, H., Hosseini, S., Huber, R. X. R., Probst, L., Röglinger, M., and Faisst, U. 2018. "Structuring Digital Transformation: A Framework of Action Fields and its Application at ZEISS," *Journal of Information Technology Theory and Application* (19:1), pp. 31-54.
- Hanelt, A., Bohnsack, R., Marz, D., and Antunes Marante, C. 2020. "A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organizational Change," *Journal of Management Studies* (58:5), pp. 1159-1197.
- Hansen, R., and Sia, S. K. 2015. "Hummel's Digital Transformation Toward Omnichannel Retailing: Key Lessons Learned," *MIS Quarterly Executive* (14:2), pp. 51-66.
- Hartl, E. 2019. "A Characterization of Culture Change in the Context of Digital Transformation," in *AMCIS* 2019 Proceedings, Cancun: Mexico. August 15-17.
- Hartl, E., and Hess, T. 2017. "The Role of Cultural Values for Digital Transformation: Insights from a Delphi Study," in *PACIS 2017 Proceedings*, Boston: Massachusetts. August 10-12.
- Heavin, C., and Power, D. J. 2018. "Challenges for Digital Transformation Towards a Conceptual Decision Support Guide for Managers," *Journal of Decision Systems* (27:1), pp. 38-45.
- Hess, T., Matt, C., Benlian, A., and Wiesbock, F. 2016. "Options for Formulating a Digital Transformation Strategy," *MIS Quarterly Executive* (15:2), pp. 123-139.
- Hinings, B., Gegenhuber, T., and Greenwood, R. 2018. "Digital Innovation and Transformation: An Institutional Perspective," *Information and Organization* (28:1), pp. 52-61.
- Hinsen, S., Jöhnk, J., and Urbach, N. 2019. "Disentangling the Concept and Role of Continuous Change for IS Research A Systematic Literature Review," in *ICIS 2019 Proceedings*, Munich: Germany. December 15-18.
- Holotiuk, F., and Beimborn, D. 2017. "Critical Success Factors of Digital Business Strategy," in *WI 2017 Proceedings*, St. Gallen: Switzerland. February 12-15, pp. 991-1005.
- Jöhnk, J., Oesterle, S., Ollig, P., and Riedel, L.-N. 2020. "The Complexity of Digital Transformation Conceptualizing Multiple Concurrent Initiatives," in *WI 2020 Proceedings*, Potsdam: Germany. March
- Jöhnk, J., Röglinger, M., Thimmel, M., and Urbach, N. 2017. "How to Implement Agile IT Setups: A Taxonomy of Design Options," in *ECIS 2017 Proceedings*, Guimarães: Portugal. June 5-10.
- Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., and Buckley, N. 2015. "Strategy, Not Technology, Drives Digital Transformation," MIT Sloan Management Review (ed.).
- Kane, G. C., Phillips, A. N., and Copulsky,, Andrus Garth 2019. "How Digital Leadership Is(n't) Different," *MIT Sloan Management Review* (60:3), pp. 34-39.
- Kossowski, J., Heumuller, E., and Richter, S. 2020. "Digital Fitness Goal for the Chief Digital Officer," in 2020 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC), Cardiff, United Kingdom. June 15-17, pp. 1-7.
- Lee, O.-K., Sambamurthy, V., Lim, K. H., and Wei, K. K. 2015. "How Does IT Ambidexterity Impact Organizational Agility?" *Information Systems Research* (26:2), pp. 398-417.
- Loonam, J., Eaves, S., Kumar, V., and Parry, G. 2018. "Towards Digital Transformation: Lessons Learned from Traditional Organizations," *Strategic Change* (27:2), pp. 101-109.
- Lyytinen, K., and Newman, M. 2008. "Explaining Information Systems Change: A Punctuated Socio-Technical Change Model," *European Journal of Information Systems* (17:6), pp. 589-613.
- Matt, C., Hess, T., and Benlian, A. 2015. "Digital Transformation Strategies," Business & Information Systems Engineering (57:5), pp. 339-343.
- Mithas, S., Tafti, A., and Mitchell, W. 2013. "How a Firm's Competitive Environment and Digital Strategic Posture Influence Digital Business Strategy," *MIS Quarterly* (37:2), pp. 511-536.
- Morgan, B. 2019. *Companies That Failed at Digital Transformation and What We Can Learn From Them*. https://www.forbes.com/sites/blakemorgan/2019/09/30/companies-that-failed-at-digital-transformation-and-what-we-can-learn-from-them/. Accessed 28 November 2019.
- Myers, M. D., and Newman, M. 2007. "The Qualitative Interview in IS Research: Examining the Craft," *Information and Organization* (17:1), pp. 2-26.

- Nadkarni, S., and Prügl, R. 2021. "Digital Transformation: a Review, Synthesis and Opportunities for Future Research," Management Review Quarterly (71:2), pp. 233-341.
- Nambisan, S., Lyytinen, K., Majchrzak, A., and Song, M. 2017. "Digital Innovation Management: Reinventing Innovation Management Research in a Digital World," MIS Quarterly (41:1), pp. 223-238.
- Nguyen, D. K., Broekhuizen, T., Dong, J. Q., and Verhoef, P. C. 2020. "When It Takes Three to Tango in the Digital Transformation Age: Synergies between Digital Orientation, Change Commitment and Organizational Agility," in ICIS 2020 Proceedings, Virtual. December 13-16.
- Orlikowski, W. J. 1996. "Improvising Organizational Transformation Over Time: A Situated Change Perspective," Information Systems Research (7:1), pp. 63-92.
- Ossenbrink, J., Hoppmann, J., and Hoffmann, V. H. 2019. "Hybrid Ambidexterity: How the Environment Shapes Incumbents' Use of Structural and Contextual Approaches," Organization Science (30:6), pp. 1319-1348.
- Piccinini, E., Hanelt, A., Gregory, R., and Kolbe, L. 2015. "Transforming Industrial Business: The Impact of Digital Transformation on Automotive Organizations," in ICIS 2015 Proceedings, Fort Worth: Texas. December 13-16.
- Raabe, J.-P., Horlach, B., Schirmer, I., and Drews, P. 2020. "Forewarned is Forearmed': Overcoming Multifaceted Challenges of Digital Innovation Units," in AMCIS 2020 Proceedings, Virtual. August 10-
- Reibenspiess, V., Drechsler, K., Eckhardt, A., and Wagner, H.-T. 2020, "Tapping Into the Wealth of Employees' Ideas: Design Principles for a Digital Intrapreneurship Platform," Information & Management.
- Romanelli, E., and Tushman, M. L. 1994. "Organizational Transformation as Punctuated Equilibrium: An Empirical Test," Academy of Management Journal (37:5), pp. 1141-1166.
- Saldaña, J. 2013. The Coding Manual for Qualitative Researchers, Los Angeles, Calif.: SAGE Publ.
- Sambamurthy, V., and Zmud, R. W. 2000. "Research Commentary: The Organizing Logic for an Enterprise's IT Activities in the Digital Era-A Prognosis of Practice and a Call for Research," *Information Systems Research* (11:2), pp. 105-114.
- Schultze, U., and Avital, M. 2011. "Designing Interviews To Generate Rich Data for Information Systems Research," Information and Organization (21:1), pp. 1-16.
- Sebastian, I., Ross, J., Beath, C., Mocker, M., Moloney, K., and Fonstad, N. 2017. "How Big Old Companies Navigate Digital Transformation," MIS Quarterly Executive (16:3), pp. 197-213.
- Singh, A., Klarner, P., and Hess, T. 2020. "How do chief digital officers pursue digital transformation activities? The role of organization design parameters," Long Range Planning (53:3), p. 101890.
- Svahn, F., Mathiassen, L., and Lindgren, R. 2017. "Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns," MIS Quarterly (41:1), pp. 239-254.
- Tabrizi, B., Lam, E., Girard, K., and Irvin, V. 2019. Digital Transformation is Not About Technology. https://hbr.org/2019/03/digital-transformation-is-not-about-technology. Accessed 2 May 2021.
- Tumbas, S., Berente, N., and vom Brocke, J. 2017. "Three Types of Chief Digital Officers And The Reasons Organizations Adopt The Role," MIS Quarterly Executive (16:2), pp. 121-134.
- Venus, M., Stam, D., and van Knippenberg, D. 2019. "Visions of Change as Visions of Continuity," Academy of Management Journal (62:3), pp. 667-690.
- Vial, G. 2019. "Understanding Digital Transformation: A Review and a Research Agenda," The Journal of Strategic Information Systems (28:2), pp. 118-144.
- Vogelsang, K., Liere-Netheler, K., Packmohr, S., and Hoppe, U. 2019. "Barriers to Digital Transformation in Manufacturing: Development of a Research Agenda," in HICSS 2019 Proceedings, Grand Wailea: Hawaii. January 8-11.
- Weick, K. E., and Ouinn, R. E. 1999. "Organizational Change and Development," Annual Review of Psychology (50), pp. 361-386.
- Wessel, L., Baivere, A., Ologeanu-Taddei, R., Cha, J., and Blegind Jensen, T. 2021. "Unpacking the Difference Between Digital Transformation and IT-Enabled Organizational Transformation," Journal of the Association for Information Systems (22:1), pp. 102-129.
- Yoo, Y., Henfridsson, O., and Lyytinen, K. 2010. "Research Commentary The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research," Information Systems Research (21:4), pp. 724-735.
- Zimmer, M. 2019. "Improvising Digital Transformation: Strategy Unfolding in Acts of Organizational Improvisation," *AMCIS 2019 Proceedings*.