

Exploring Digital Transformation’s Impact on Organizational Identity with an Archetype Framework

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Abstract

Recently, IS scholars draw attention on the interrelation between digital transformation and organizational identity. However, little is known about how digital transformation processes affect organizations’ identity change. We assume to grasp this complex phenomenon by distinguishing different manifestations of digital transformation related to organizational structures and modes of value creation, expecting each to have distinctive effects on changing organizational identity. We capture these differing effects in an archetype framework as a heuristic for future research.

Keywords: digital transformation, organizational identity, arche-types, digital technologies.

1. Introduction

Many areas of the everyday world face the transformation of analogous contexts to a digital world, which is induced by digital technologies. This holds true particularly for companies. Therefore, Hess et al. state: “Integrating and exploiting new digital technologies [...] is one of the biggest challenges that companies currently face” (2016, p. 123). This challenge is at the heart of digital transformation (DT) which is assumed to trigger changes on various organizational levels (Vial, 2021). By changing companies’ established structures and processes, DT affects an organization right down to its very core and, thus, also impacts its organizational identity (OI) (Ravasi et al., 2020).

OI plays a crucial role for companies, not only because it shapes their image and reputation and thus is an important source for acquiring financial resources, trust, and legitimacy (Kodeih & Greenwood, 2014; Puusa, 2006). Moreover, OI is of high relevance internally, providing company members with a frame of reference for action and serving as a backbone for social cohesiveness (Kirchner, 2010).

Recently, IS scholars draw attention on the relation between DT and OI. While some researchers assume an

adaption of OI as an enabler for change through DT (e.g., Ghawe, 2020; Göbeler et al., 2020), others argue that, conversely, technology-induced transformation changes OI (e.g., Bitzer et al., 2021; Ivarsson & Svahn, 2020). Some even posit an extensive OI change as an inherent aspect of DT itself as it not only encompasses fundamental changes in an organization’s value proposition but also leads to “the emergence of a new organizational identity” (Wessel et al., 2021, p. 102).

With respect to previous studies on this issue, it becomes obvious that scholars predominantly presume a relationship between both concepts insofar as an organization’s DT changes its OI. However, little is known on how such a change exactly unfolds in organizations during DT. First, the possible ways in which DT affects an OI change have not yet been investigated. Theoretical conceptualization about this interdependence would help to grasp the concepts’ connection and therefore enhance the quality of research in this area. Although research coincides that DT leads to changes regarding OI, a more fine-grained understanding of their impact that is deduced from and embedded in theory is missing. Second, existing research only evaluates OI changes from a post-hoc perspective in comparison to a current OI. However, organizational change in the context of digitalization is mostly approached as continuous process rather than a single event at a certain point of time (Baygi et al., 2021). Therefore, a conceptualization of the avenues for changing OI in the course of DT is valuable to reflect the continuous nature. Considering these ambiguities, it becomes apparent that IS research is lacking a joint understanding of DT’s impact on OI. Thus, we propose the following research question:

RQ: How is organizational identity changing in the course of digital transformation?

In order to grasp this unexplored and complex entanglement, we utilize an approach based on deductive theoretical reasoning to synthesize theories from both fields, DT and OI (Hirschheim, 2008; Jaakkola, 2020). By interlinking the concepts, we develop a framework which illustrates ways in which DT affect a change of OI.

We concur that OI plays a crucial role regarding DT. However, we take a critical stance on a generalization, since we expect different modes of DT having distinctive effects on an organization's current identity. We elaborate these differing effects and condense them in an archetype framework. This framework should provide a theoretical heuristic for future research on the interrelation between DT and OI.

2. Theoretical concepts

2.1. Theoretical foundations of digital transformation

IS Research about DT is as far-reaching as diverse. In recent times, various conceptual and empirical contributions led to a fruitful discussion about the core, governance, and gestalt of DT in organizations. Thereby, the influence of DT is reflected in diverse ways. For instance, frameworks exist that describe the influence of DT on decision making in the society (Bodrožić & S. Adler, 2022), its influence on the transformation of everyday life and routines (Iivari et al., 2020), the relationship of DT and digital innovation (Baygi et al., 2021; Lundberg et al., 2020; Nambisan et al., 2019), its impact on strategic processes in organizations (Hess et al., 2016; Matt et al., 2015), and on the change of organizational processes (Vial, 2021; Wessel et al., 2021).

In order to derive a common definition, there is an academic debate about the extent of changes triggered by DT. While some academics suggest that DT can be referred to as any organizational change that is digitally driven and somehow affects an organization's value proposition (e.g., L. Li et al., 2018), others highlight the importance of the changes' fundamentality within an organization through the implementation of digital technologies (e.g., Chantias et al., 2019; Majchrzak et al., 2016). Comparing these two notions, it becomes apparent that DT's core can be defined as changes occurring in organizations induced by digital technologies, although their cope differs regarding DT's assumed impact. The first line of thought presumes that information technology mostly focuses on a change of processes within an organization in order to make them more efficient. Therefore, this approach towards DT predominantly follows an internal perspective. However, this perspective does not capture the encompassing and far-reaching effects of this process. In contrast, the established definition of Vial (2019) regards DT as a holistic process that affects manifold organizational areas in diverse ways and is induced by digital technologies. These technologies constitute the central resource for a change in the value propositions of an organization (Wiesböck & Hess, 2020). By being embedded into an organization's struc-

tures, capabilities, culture, and application portfolios, holistic changes are triggered, representing the body of DT. Consequently, Wessel et al. (2021) argue that approaches which classify every IT-enabled change as DT are not far-reaching enough. In contrast, it is posit that DT not solely centers on implementing digital technologies but comprises holistic organizational changes on diverse levels (Hartl & Hess, 2017).

Despite these differences, both in academic discourse and in practical contexts, distinctions are made between various expressions of DT and their manifestations on an organizational level (Chantias et al., 2019). These initiatives differ across companies in terms of their structure and content, which can be captured by referring to a structural-related and a content-related dimension. The structural-related dimension refers to how DT is embedded within an organization. It is concerned with "who will be in charge of the transformation endeavor" (Hess et al., 2016, p. 132) which can be described as implementation mode. Mainly, this relates to where new digital activities are located, and where the necessary competencies are bundled (Hess, 2019). This is complemented by the content-related dimension which describes the distance of DT to the core business. It is concerned with changes regarding an organization's value creation (Matt et al., 2015) and mainly refers to the question of the extent of changes that the implementation of digital technologies brings along: they can span on a continuum where these changes either are relatively close to the core business, or strictly deviate from it (Bosler et al., 2021). It follows that the more the new mode of value creation is different from the current one, the greater is DT's distance to the core business.

2.2. Theoretical considerations on organizational identity

Existing IS research provides first starting points to better understand the mutual relationship between organizations' identities and digital technologies, reflecting the close intertwining between social and technological aspects in organizations (e.g., Gal & Jensen, 2008; Tyworth, 2014; Whitley et al., 2014). For example, OI is attested mediating the influence on organizations' system development processes (e.g., Tyworth, 2014). Although the use of OI as a concept for IS has already proven fruitful, a high-level theoretical reflection is lacking that is detached from empirical cases and would allow for a broad applicability, e.g., to organizational transformation processes. In our view, the synthesizing enrichment with a social science perspective is promising to theoretically capture this concept in its complexity and dynamics. The consideration of theoretical nuances as well as a differentiation from the frequently used concept of organizational culture can thus further

enrich the quality of research, since both terms are often used fuzzy and even synonymous.

Referring to OI implies consciously reflecting on the question: Who are we as an organization? And who do we want to be in the future? In this, it clearly differs from the theoretical concept of organizational culture. Moreover, OI is more far-reaching as it covers all characteristics that are seen as constitutive for an organization by its members. Therefore, elements related to an organization's culture may be one part of an OI, which also comprises other attributes perceived as relevant, such as products, structures or processes. For instance, for a car manufacturer's employees, the product, namely the car, may be at the OI's core (e.g., self-understanding as world-leading premium car manufacturer), while for a digital media start-up's members processual issues like agility may be perceived as central to its OI (e.g., self-understanding as most advanced agile media provider).

For the organizational members OI has an integrative as well as an operative impact, which are mutually interrelated (Kirchner, 2010). The integrative impact refers to social cohesiveness as a fundamental condition of organizations, as OI is the common shared self-understanding. Regarding the operative impact, OI provides organizational members with a frame of reference and orientation for practices and decisions. Considering its fundamental importance for the organization in general and for change processes in particular, we take OI as the central category of analysis for exploring implications for organizations in the course of DT.

While the notion of OI is rather new in IS research, scholars in the field of organizational studies have developed and elaborated its underlying assumptions in the last decades (e.g., Gioia, 1998). Primarily, the concept was introduced by Albert and Whetten. In their seminal paper, they define OI as organizational members' answer to the questions "Who are we?" "What kind of business are we in?" or "What do we want to be?" (Albert & Whetten, 1985, p. 265).

Albert and Whetten (1985) assume that OI meets three criteria: *central*, *distinctive* and *enduring*. First, OI refers to characteristics that are regarded as central and often "manifested as key values, labels, products, services, or practices, etc. and are deemed to be essential aspects of organizational purpose and self-definition of 'who we are'" (Gioia et al., 2013, p. 125). Second, OI refers to distinctive characteristics that are seen as outstanding against comparable organizations (e.g., competitors) and distinguish an organization from others (e.g., unique selling propositions but also cultural aspects). Third, OI is considered to be enduring.

However, this last criterion is discussed highly controversially among scholars as it implicitly indicates the impossibility of OI change. The various approaches concerning questions on OI stability or dynamics are

strongly entangled with different epistemological perspectives: Some scholars regard OI as an objective property and thus as being given and stable. In this case, OI is often associated with identity claims by legitimized organizational representatives, such as predominantly the top management (e.g., Whetten, 2006). In contrast, other scholars emphasize OI's collective and processual character as "a social construction that results from the efforts of organization members to understand their collective selves" (Brown, 2009, p. 179). This perspective on *doing* OI in ongoing collective processes of understanding and (re)negotiating ultimately calls OI's enduring character into question.

3. Structured literature synthesis

In order to deepen and unify current insights on the relationship between DT and OI and to develop our further argumentation, we conduct a systematic literature review (Hirschheim, 2008). Based on the guidelines by Paré et al. (2016), we ensured transparency and systematicity for our review process. Consequently, we focused on the eight journals that are part of the AIS Senior Scholars' Basket, as well as on contributions from the popular IS conferences ICIS, ECIS, PACIS, AMCIS, and HICSS. The search terms 'Digital Transformation AND Organizational Identity' as well as their pluralized forms were applied to the full texts. The initial search yielded 39 papers, whose relevance for our research question were assessed carefully. Contributions that used the terms without generating a relationship between the two search terms were excluded from the analysis. Consequently, the final sample comprised 17 papers in total of which two addressed at least two different types of relationships (see Table 1).

Table 1. Systematic literature review on the relationship between DT and OI.

Relationship	Sources
DT leads to changes of OI $\Sigma = 12$	Bitzer et al., 2021; Fabian et al., 2020; Iden & Bygstad, 2021; Ivarsson & Svahn, 2020; Karnebogen et al., 2021; J. Li et al., 2021; Rahrovani, 2020; Serrano & Boudreau, 2014; Stockhinger, 2021; Tan et al., 2020; Wessel et al., 2021; Yeow et al., 2018
DT must be aligned to OI $\Sigma = 3$	Haskamp et al., 2021; Hund et al., 2021; Samuel & Edwards, 2014
OI must be changed to enable DT $\Sigma = 4$	Ghawe, 2020; Göbeler et al., 2020; Hund et al., 2021; Ivarsson & Svahn, 2020

We identified an increasing awareness of the topic, since only three papers were published before 2018. When analyzing the selected contributions, we investigated the outlined relationship between the concepts of DT and OI. Thereby we inductively derived three central types that describe the nexus of both concepts: DT as a process that leads to changes of OI, DT as a process that must be aligned to the existing OI, and change of OI as a precondition to enable the process of DT.

Most contributions can be assigned to the first dimension. In this cluster, we identified 12 papers in total describing that technology-induced change, which results from DT, leads to a change of OI. While most contributions here describe this change of OI as a change that focuses on an adaption of the identity to match DT, three papers also explicitly describe that DT threatens a current OI (J. Li et al., 2021; Tan et al., 2020; Yeow et al., 2018). The second group describes OI as a precondition which DT must be aligned with. These contributions state that the process of DT must reflect the specifics the respective OI brings with it. Therefore, a change of OI can be avoided. Moreover, some papers state that OI can even be a threat for DT as a protective identity has the potential to prevent DT and the change that comes along with it (Haskamp et al., 2021; Hund et al., 2021). The third group approaches the relationship of DT and OI from a reversed perspective. Here, the OI must first be changed to enable the process of DT to start. Hence, this line of research assumes that both concepts are in a temporal relation as one enables the other.

Moreover, it became apparent that the work of Wessel et al. (2021) gave impetus for IS research on the relationship between DT and OI as seven of the fourteen contributions about this topic since 2020 refer to their understanding of OI change as an inherent aspect of DT. Besides, by comparing the three derived types of relationships, it becomes apparent that the field of researchers that postulate an influence of DT on OI is the most predominant one. Hence, we focus on the impact that DT imposes towards OI change in the following.

4. Linking digital transformation and organizational identity

According to the result of our structured literature review, it revealed that prior literature has diverse understandings of the relationship between DT and OI. However, owing to the contextual nature of these understandings, research findings on this interaction cannot be seamlessly merged to a holistic notion. Moreover, the focus in IS discourse so far either regards OI as a precondition or as an outcome of DT, there is a gap with respect to the question, how OI is affected *during* DT process.

Based on guidelines by Thatcher and Fisher (2022), we aim to structure the influence of DT on the potential

change of OI. In order to substantiate and clarify our perspective, we will briefly depict our theoretical approach on both, the concept of DT and OI, before connecting them.

Following our remarks about the current state of literature on DT it is apparent that DT is discussed very heterogeneously among scholars. We suggest a rather broad understanding of DT in line with the definition of Vial (2021). Consequently, we view DT as a process leading to fundamental and holistic changes within diverse organizational areas. Capturing the manifestation of DT on an organizational level, we propose referring to a structural-related (i.e., how is DT implemented in an organization?) and a content-related dimension (i.e., how distant DT is from the current core business?).

With respect to OI, we follow a constructivist perspective, suggesting to understand OI as a collective constituted social phenomenon. In the course of a collective process of understanding and negotiation among the organizational members, OI crystalizes and prevails as the legitimate common shared self-understanding. While OI, in this vein, is seen as processual and dynamic per se, at the same time, it becomes often relatively stable and enduring over time. This relative stability relies on its tendency of self-reproduction, since a current legitimate OI becomes commonly taken-for-granted and builds the point of reference and frame of orientation for the organization's members. It grinds the organization members' "special glasses" through which they see certain things and not others, and through which they see the things they see in the special way they see them" (Bourdieu, 2001, p. 247). Therefore, OI tends to reproduce itself and persists in a relatively enduring manner. However, it is not an objectively fixed entity, but rather a social construct that displays a high degree of inertia and tenaciousness.

4.1. Digital transformation as 'identity threat'

Supposing that OI tends to self-reproduction and inertia while being changeable per se, the question arises about what triggers a *re*-negotiation process about the OI. Circumstances that potentially challenge a common shared and legitimate self-understanding are labeled "identity threats" (e.g., Ravasi & Schultz, 2006) in OI theory. The notion 'threat' is not necessarily assessed as negatively or positively but just as a trigger questioning a current OI and initiating a (re)negotiation process. For this process, scholars observe "a sensemaking phase aimed at building new interpretations or, at the very least, revising old conceptions of central and distinctive features of the organization" (Ravasi & Schultz, 2006, p. 446).

From theory it can be derived that DT can trigger an OI change (Wessel et al., 2021). Following the assumption that DT implies holistic and fundamental organizational changes on diverse levels, we argue DT to be a potential identity threat challenging a current legitimate

OI. DT irritates the taken-for-granted OI and therefore triggers a (re)negotiation process about the question 'Who are we – and who do we want to be in the future?'.

While scholars posit DT to initiate an OI change, however, there is no evidence so far, how such an OI change actually unfolds in the course of DT. Drawing on our theoretical perspectives, we assume that organizational changes in the course of DT may lead the organizational members to revisit their taken-for-granted perspective of their organization. While the identity question usually is hardly subject to a conscious discourse but OI is rather a tacit knowing that guides the organizational members thinking and acting, DT can irritate this taken-for-grantedness and may initiate a process of exchange and (re)negotiation about the (future) OI.

Scholars have already investigated such sensemaking processes in organizations (Weick, 1993) during organizational changes and provided a variety of concepts, e.g., conceptualizing 'organizational adoption' (Miles et al., 1978), 'entrepreneurial orientation' (Lumpkin & Dess, 1996), or social dimensions of alignment/misalignment (Fichman & Melville, 2014; Pelletier et al., 2021). However, these concepts primarily focus on a managerial perspective towards organizational change. In contrast, we assume that DT appears as a threat for OI that affects not only the managers' perspective but also the organizational members perception of their organization, since we understand OI as a collective social construct that frames their organizational thinking and acting. Therefore, the sensemaking process about the OI triggered by DT applies not exclusively to the management level but to the organizational level as a whole.

Concurring with Wessel et al. (2021, p. 102), who pinpoint at the basal relationship between DT and OI, we aim at developing a more fine-grained conceptualization of processes towards OI change during DT. We assume that DT sparks a process of (re)negotiation among the organizational members about the future OI. Referring to differences in the manifestation of DT on the organizational level, we suppose that the way and direction a current OI may change significantly depends on the way DT is implemented and evaluated within the organization. Assuming DT to trigger an OI change, we expect that different DT manifestations imply different effects on the emerging (re)negotiation process with respect to distinctive avenues for OI change. Hence, our focus here is not on the gradual classification of the extent of change, but rather on the conceptualization of different organizational responses leading to different avenues for changing OI *in the course of DT*. The general objective of this study is not to provide a processual study itself, but to build theory on the interrelationship of two processes that affect organizations (i.e., DT and changing of OI) (Gregor, 2006). In this regard, our spe-

cific objective is to explore this relationship by identifying possible ways for changing OI, triggered by DT, which can be deduced from existing theory. To summarize, we assume DT and OI as closely related while the precise impact on OI *during* DT is largely unexplored.

4.2 Impact of digital transformation on the quest for organizational identity – a differentiation of archetypes

Since DT's influence on OI has not been specified more precisely in research so far, we propose a differentiated view that takes into account both, DT's different manifestations as well as organizational responses with respect to OI, which we will condense into different archetypes. Since we assume different DT manifestations to distinctively affect this process, we provide a differentiated view of these DT manifestations and their respective impact on the OI change in the following.

Concerning DT's broad conceptualization in academic discourse, we argue two dimensions being of particular importance in our context: On the one hand, the content-related dimension refers to DT's distance to a company's current core business, being either *close* or *distant* to it. While some organizations focus on using digital technologies to drive holistic and fundamental change that improves and expands their core business, other organizations particularly use them to develop entirely new product and service innovations or directly adapt their entire business model (Remane et al., 2017). In a *close* mode, DT is aligned to an organization's present core business. Digital technologies are implemented to expand and further develop current products and services, processes, and business models (Nambisan, 2020). Following our definition of DT, this mode of expansion and development still leads to holistic and fundamental changes throughout the whole organization. In a *distant* mode, DT-induced changes are of a more fundamental and extensive nature for the current value creation: The implementation of completely new digital technologies can coexist or even substitute the current mode of value creation (Hess et al., 2016). Thereby, their distance to the present core business is relatively high. These remarks show that the content-related dimension opens up a continuum whose ends can be characterized as either close or distant.

On the other hand, the structure-related dimension points to the way DT is embedded within an organization and can be differentiated into *separated* and *integrated* DT processes. Analogously to the content-related dimension, this dimension less covers clear types of DT embedding but rather positions them on a continuum. In a completely *separated* mode, DT is not tackled simultaneously throughout the entire company but in specific isolated areas first. In an *integrated* mode, the attempt to execute DT throughout the entire company is aspired.

We suppose that both dimensions are essential points of reference for the organizational members' common shared OI. Therefore, the differentiated consideration of these DT manifestations in organizations allows extracting expected effects on OI change for each theoretical extreme case (see Figure 1). We theoretically group these different pathways for OI change in four distinguishable archetypes (Greenwood & Hinings, 1993). Since archetypes are abstract and idealized configurations, we regard these specifications as analytical rather than practical categories, being aware that these types are rarely found, if at all, in their pure form in practice. Usually, combinations, hybrids, or just single elements can be found in specific company settings. However, these archetypes serve as a frame of reference and analytical tool in order to closer explore varying effects on OI depending on different DT specifications.

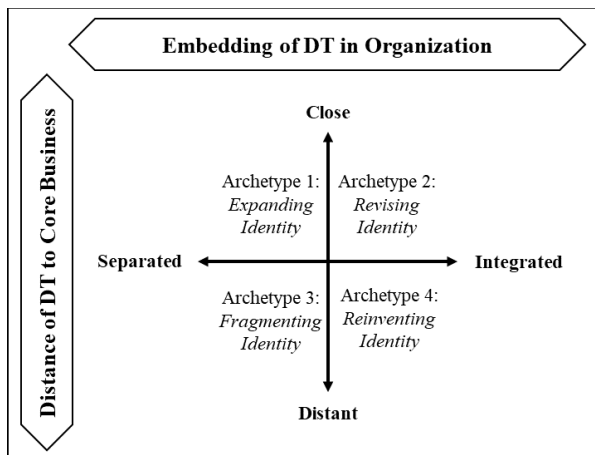


Figure 1. Archetypes reflecting DT's effects on OI change.

Archetype 1: Expanding Identity. This archetype refers to DT manifesting as expansion and further development of an organization's present core business, driven by digital technologies. Regarding the content, thus DT is closely aligned to the organization's core business. Concerning the DT's structural embedding, the actualization takes place in a separated manner, isolated from established organizational structures. Therefore, the established structures stay largely unaffected by DT.

We assume that this DT manifestation leads to restrictive (re)negotiation processes within the company about their OI. While the company's current OI will be preserved by the organization members to a large extent and not questioned as a whole, due to the closeness of DT to the previous core business, it can be assumed that those company members in charge of digital developments bring new and additional aspects into discourse about the organization's future OI.

The identity change triggered by this mode of DT manifestation thus will likely lead to an *expanding of the OI*. Since the hitherto core business is not changed fundamentally by DT, the 'new' digital orientation is only driven by some organizational members. Therefore, it is not expectable that newly emerging identity features result in a fundamental re-adjustment of the OI. Rather, these complementary identity elements may be perceived as additional characteristics. Consequently, a company's members will expand the established OI by adding these aspects (e.g., we are *still* a traditional car manufacturer, but we now are *also* a provider of digital driver assistance systems).

Archetype 2: Revising Identity. This archetype refers to a DT likewise manifesting as expansion and further development of an organization's present core business, also driven by digital technologies. DT in this case is also close to the previous core business. In contrast to the former archetype, here DT is implemented throughout the entire company in a structurally integrated mode.

This DT manifestation would lead to an OI (re)negotiation process among organizational members, collectively reviewing the organization's (future) self-understanding. Since DT remains close to the previous core business, in this case, the (re)negotiation process about the OI is supposed to lead to an open discourse, however, closely connected to the current OI.

Therefore, we assume a (partial) *revising of the OI* due to the irritations triggered by DT, however not in a fundamental way. Since the prevalent core business is also not fundamentally changed by DT, the current OI will not be completely but rather partially questioned. We expect processes of re-interpretation and/or re-adjustment of the current OI that may lead to OI changes in some respects, however largely built on the organization's previous roots (e.g., we are a digitally enhanced car manufacturer).

Archetype 3: Fragmenting Identity. This archetype refers to a DT manifesting as an extensive change of an organization's current mode of value creation. However, the process of DT is embedded in a separated manner as it is driven by one or few dedicated entities within the organization.

We expect this DT manifestation leading to two (or more) separated, however profound, yet potentially conflicting (re)negotiation processes about the legitimate (future) OI. Due to the importance of the organizational entities that are in charge of digitalization for the organization's aspired development, we assume that a strong digitally-centered understanding will emerge within the organizational entities that are highly concerned with digital issues. This process of understanding and negotiation will take place largely independent and lead to an organizational self-understanding within these entities distant from the organization's hitherto established OI.

In contrast, it can be supposed that the members remain working within the previous established organizational structures are more likely to maintain and preserve their previous established OI. Therefore, during the negotiation processes about OI, it can be expected that two potentially opposing opinions emerge, one defending and preserving the previous OI and another hinging upon a newly digital-centered interpretation of the OI.

Thus, the negotiation processes triggered by this DT manifestation may increasingly lead to incompatibilities in the sub-groups' perceptions *fragmenting* the hitherto common shared OI. Among the digital-focused sub-group members, it can be expected that a shared self-understanding will prevail that is largely independent or only loosely coupled to the hitherto established OI. At the same time, the previous OI may still co-exist in parts of the organization not immediately affected by DT (e.g., we are a traditional car manufacturer vs. we are a tech-company for mobility solutions).

Archetype 4: Reinventing Identity. This archetype refers to a DT likewise manifesting as fundamental and extensive change of an organization's current value creation, but here, DT is implemented throughout the entire company from the start. Digital technologies should become the new core of value creation and all organizational areas are strongly pushed in this direction simultaneously.

We suppose this DT manifestation triggering a fundamental and serious OI (re)negotiation process throughout the entire company. DT, in this case, fundamentally threatens the previous taken-for-granted self-understanding and the current OI provides little clue with respect to the company's future. Hence, the organizational members may perceive DT in a sense comparable to an identity crisis, since the aspired organizational turnaround causes uncertainty and disorientation affecting the entire organization.

In this case, we expect the emergence of a fundamental process of understanding and negotiation about the company's future identity, whereby the organizational members completely reinvent the OI. Depending on the members' responses, two possible scenarios can be imagined which in the medium-term shape and guide this process of understanding and negotiation. Either, DT unleashes generative potential among the organizational members, fostering a process of *reinventing the OI* that will be only loosely linked to the company's hitherto established OI (e.g., we used to be a traditional car manufacturer, but now, we are a tech-company for mobility solutions). Alternatively, the quest for OI results in a kind of identity crisis and temporally a loss of identity. In this case, the negotiation process resembles an anomic situation. The established OI is losing its reliability as a frame of reference and a backbone of social cohesiveness, while new ideas about a future OI are fuzzy and

subject to a polyphony of voices and a legitimate and commonly shared understanding is not yet crystallizing.

4. Discussion and future research

By differentiating four archetypes of OI change during DT, we aimed at providing a more differentiated and nuanced framework for grasping the relationship between DT and OI.

Our research provides the following contributions: First, taking a constructivist perspective, we expand the understanding of a holistic and fundamental extent of DT by providing a fine-grained concept of its impact on theoretically possible ways for OI change. Second, we shed light on the discussion that emerged from the seminal paper by Wessel et al. (2021), by further developing and differentiating the notion of the concatenation between DT and OI. Thereby, we emphasize that, depending on the actual DT manifestation, an OI change can take different ways. Moreover, we deduce how the emergence of a changed OI may unfold within organizations. Third, our framework can serve as a basis to investigate DT in a more nuanced way by considering its holistic impact with regard to factors that are not directly affected by the implementation of digital technologies.

The constructed framework aligns with and supplements existing theoretical concepts about organizational change in two ways: First, concepts that only address the influence of self-contained phenomena are not applicable in the context of the pervasive influence of digital technologies on organizations, as they mostly factor out the interdependency of diverse organizational issues that emerge from the specific property of modularity implied by digital technologies (Yoo et al., 2010) "in today's digital first world" (Baskerville et al., 2020, p. 512). Therefore, the provided framework highlights the holistic impact that DT can have on an organization. Second, established work on the change of organizational culture and identity mostly lack a focused perspective and incorporate the perspective of diverse factors that induce their change (Baygi et al., 2021; Haskamp et al., 2021; Wessel et al., 2021). However, the properties of DT are supposed to have a revolutionary impact similar to the industrial revolution, which is why our framework decidedly addresses and encompasses these properties as necessary.

Against this background, our framework provides multiple starting points to describe how our research can serve as a basis for further research: First, we focused on one relationship type observed from IS literature, which covers DT-induced change in OI. However, it can be assumed that not only DT affects OI, but OI affects DT alike. In this vein, literature has noted that DT must be aligned to a current OI. Respectively, OI must be changed beforehand to enable DT. Although we pursued

the predominant research focus in IS, the other two approaches towards the relationship of DT and OI should also be addressed in further research in order to gain a comprehensive perspective on this relationship.

Second, our conceptual framework entails a structure- and content-related dimension to describe DT's fundamental impact. However, we acknowledge that, due to its holistic nature, DT also comprises additional dimensions, whose integration in further research seems promising. Third, our theoretical considerations refer analytically to a specific time span, that is the initial introduction of DT triggering a negotiation process about the OI. We are aware that DT's long-term effects on OI are difficult to predict, since other parameters affect the dynamics of OI alike. Therefore, we turn the spotlight on the rather immediate short-term effects on OI triggered by an initiated change process of DT.

Based on these remarks, we suggest avenues for further research on this relationship (see Table 2). We especially derive two dimensions for future research: The first dimension targets on further developing our framework on a conceptual and theoretical level. The second aims at applying our developed framework empirically.

Regarding our framework's further conceptual and theoretical development, we see three main aspects calling for a more detailed elaboration. Assuming OI change as a highly complex process of negotiation, first, we suggest examining this process in more detail. It seems expedient to observe how it unfolds in detail, what positions or groups are involved to which extent, and by what means these negotiations are carried out within organizations. Considering power relations and power strug-

gles in the course of DT and associated OI (re)negotiations would be of particular interest. Second, it seems worthy to consider potential (inter)relationships between different archetypes over time. Since we conceptualized our archetypes as theoretical heuristics for temporary avenues of OI change, further OI changes are to be expected over time. Therefore, it seems fruitful to take a long-term perspective and examine how different archetypes may alternate in the long run. Third, research is needed on what events or circumstances besides DT affect OI change and how these influences are entangled in potential interdependencies, since specific determinants may emphasize or downsize DT's impact on OI change.

Besides a further conceptual and theoretical elaboration of our framework, we suggest an empirical application in order to fathom its suitability as a heuristic. One potential research focus could be an appropriate operationalization to track and measure DT's impact on OI change. This is directly related to the endeavor to evaluate suitable indicators that can be used to properly capture OI and its change as a collective endeavor in the course of DT. Due to the nature of archetypes as abstract and idealized configurations, it remains an open question how and which OI changes can be observed empirically, and which hybrid configurations can be identified. Last but not least, future research can shed light on matters of OI's manageability and governance in the context of DT initiatives. Potential research questions relate to the controllability of the OI (re)negotiation processes and to the identification of suitable means for (managerial) support and guidance during OI change in the course of DT.

Table 2. Future research dimensions.

Research Dimensions	Exemplary Research Questions
1) Conceptual and theoretical development of the framework	
<i>Adjustment process of DT & OI</i>	<ul style="list-style-type: none"> • How does the negotiation process on OI unfold in the course of DT and what actors dominate? • Which power struggles about OI do emerge in the course of DT and how are they carried out?
<i>(Temporal) Relationship between archetypes</i>	<ul style="list-style-type: none"> • How do the archetypes interrelate over time? • Are there typical transition paths?
<i>Interplay between DT and other OI determinants</i>	<ul style="list-style-type: none"> • What additional determinants influence OI? • How do these interrelate with DT and what interdependencies occur?
2) Empirical application of the framework	
<i>Empirical operationalization</i>	<ul style="list-style-type: none"> • (How) Can DT's impact on OI be tracked and measured? • What indicators are suitable to capture OI changes?
<i>Configuration of DT's impact on OI in practical settings</i>	<ul style="list-style-type: none"> • What OI changes can be observed empirically? • What hybrid forms of archetypes can be discovered?
<i>Manageability and governance of OI change</i>	<ul style="list-style-type: none"> • How and by what means can OI change be guided and directed? • How can management influence OI development?

5. Conclusion

Even though the concatenation of DT and change of OI certainly gains attention in recent IS literature, a deeper understanding of this relationship and a synergetic view is lacking. We extend existing research by connecting both processes in form of a conceptual framework that structures the entanglement between DT and OI to answer the research question: *How is organizational identity changing in the course of digital transformation?*

To answer this question, we followed four steps. First, we discussed theoretical core ideas from the fields of DT and OI. Second, we synthesized existing literature about the interrelationship of DT and OI. Third, we clarified our theoretical perspective and linked both concepts by framing DT as a potential identity threat that triggers a (re)negotiation process about OI. Fourth, we developed a framework of four archetypes of OI change associated with different manifestations of DT, namely *expanding identity*, *revising identity*, *fragmenting identity*, and *reinventing identity*. Thereupon, we discussed the contribution of our research and derived an agenda for future research in a fifth step.

Hence, this research agenda gives impetus for further investigating the relationship between DT and OI. From our perspective, the concatenation of these two concepts and more elaboration on this connection help to grasp the impact of DT and describe its gestalt from a more holistic perspective.

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