

# DIGITAL TRANSFORMATION AND INSTITUTIONAL THEORY

# RESEARCH IN THE SOCIOLOGY OF ORGANIZATIONS

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# DIGITAL TRANSFORMATION AND INSTITUTIONAL THEORY

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# FOREWORD: RESEARCH IN THE SOCIOLOGY OF ORGANIZATIONS

*Research in the Sociology of Organizations (RSO)* publishes cutting-edge empirical research and theoretical papers that seek to enhance our understanding of organizations and organizing as pervasive and fundamental aspects of society and economy. We seek provocative papers that push the frontiers of current conversations, that help to revive old ones or that incubate and develop new perspectives. Given its successes in this regard, *RSO* has become an impactful and indispensable fount of knowledge for scholars interested in organizational phenomena and theories. *RSO* is indexed and ranks highly in Scopus/SCImago as well as in the Academic Journal Guide published by the Chartered Association of Business schools.

As one of the most vibrant areas in the social sciences, the sociology of organizations engages a plurality of empirical and theoretical approaches to enhance our understanding of the varied imperatives and challenges that these organizations and their organizers face. Of course, there is a diversity of formal and informal organizations – from for-profit entities to nonprofits, state and public agencies, social enterprises, communal forms of organizing, nongovernmental associations, trade associations, publicly traded, family-owned and managed, private firms – the list goes on! Organizations, moreover, can vary dramatically in size from small entrepreneurial ventures to large multinational conglomerates to international governing bodies such as the United Nations.

Empirical topics addressed by *RSO* include the formation, survival and growth of organizations; collaboration and competition between organizations; the accumulation and management of resources and legitimacy; and how organizations or organizing efforts cope with a multitude of internal and external challenges and pressures. Particular interest is growing in the complexities of contemporary organizations as they cope with changing social expectations and as they seek to address societal problems related to corporate social responsibility, inequality, corruption and wrongdoing and the challenge of new technologies. As a result, levels of analysis reach from the individual, to the organization, industry, community and field and even the nation-state or world society. Much research is multilevel and embraces both qualitative and quantitative forms of data.

Diverse theory is employed or constructed to enhance our understanding of these topics. While anchored in the discipline of sociology and the field of management, *RSO* also welcomes theoretical engagement that draws on other disciplinary conversations – such as those in political science or economics, as well as work from diverse philosophical traditions. *RSO* scholarship has helped push forward a plethora theoretical conversations on institutions and institutional change, networks, practice, culture, power, inequality, social movements,

categories, routines, organization design and change, configurational dynamics and many other topics.

Each volume of *RSO* tends to be thematically focused on a particular empirical phenomenon (e.g., creative industries, multinational corporations and entrepreneurship) or theoretical conversation (e.g., institutional logics, actors and agency and microfoundations). The series publishes papers by junior as well as leading international scholars and embraces diversity on all dimensions. If you are scholar interested in organizations or organizing, I hope you find *RSO* to be an invaluable resource as you develop your work.

Professor Michael Lounsbury  
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# INSTITUTIONAL PERSPECTIVES ON DIGITAL TRANSFORMATION

Thomas Gegenhuber, Danielle Logue,  
C.R. (Bob) Hinings and Michael Barrett

## ABSTRACT

*Undoubtedly, digital transformation is permeating all domains of business and society. We envisage this volume as an opportunity to explore how manifestations of digital transformation require rethinking of our understanding and theorization of institutional processes. To achieve this goal, a collaborative forum of organization and management theory scholars and information systems researchers was developed to enrich and advance institutional theory approaches in understanding digital transformation. This volume's contributions advance the three institutional perspectives. The first perspective, institutional logics, technological affordances and digital transformation, seeks to deepen our understanding of the pervasive and increasingly important relationship between technology and institutions. The second perspective, digital transformation, professional projects and new institutional agents, explores how existing professions respond to the introduction of digital technologies as well as the emergence of new professional projects and institutional agents in the wake of digital transformation. The third perspective, institutional infrastructure, field governance and digital transformation, inquires how new digital organizational forms, such as platforms, affect institutional fields, their infrastructure and thus their governance. For each of these perspectives, we outline an agenda for future research, complemented by a brief discussion of new research frontiers (i.e., digital work and sites of technological (re-)production; artificial intelligence (AI) and actorhood; digital transformation and grand challenges) and methodological reflections.*

**Keywords:** Institutional theory; digital transformation; affordances; institutional logics; professions; institutional infrastructure

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## INTRODUCTION

Digital technologies are increasingly permeating all domains of contemporary worklife and are widely recognized to be at the heart of transformations in institutional change underlying business and society. These developments present institutional theorists with an opportunity to understand how recent forms of digitalization are shaping (de)institutionalization processes. Institutional theory illuminates how socially constructed rules and norms, underpinned by cognitive understandings, become taken for granted and shape organizational and individual action; and conversely how organizational and individual action become institutionalized (Greenwood, Oliver, Sahlin, & Suddaby, 2008). While a more traditional emphasis has recognized digital transformation as a historical and ongoing force of rationalization seeking efficiency gains (Nassehi, 2021), its current manifestations present challenges and opportunities for how we understand and theorize institutional processes.

We define digital transformation as the combined effect of utilizing (various) digital technologies in “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” (Hinings, Gegenhuber, & Greenwood, 2018, p. 53). Recent work has sought to unpack and distinguish digital transformation from earlier information technology (IT)-enabled transformation (Heracleous & Barrett, 2001) and has highlighted the role of organizational identity and the organization’s value proposition (Wessel, Baiyere, Ologeanu-Taddei, Cha, & Blegind Jensen, 2021). Some go even further and understand digital transformation as a logic in its own right. For example, Schildt (this volume) argues that a logic of digitalization consists of two tenets, namely,

the pursuit of digital omniscience – the efforts to represent and conceive the world through digital data – and digital omnipotence – the efforts to bring activities inside and outside organizations under the control of information systems.

These debates and conceptualizations suggest that we focus on digital transformation as a form of institutional change which goes well beyond technological adoption (Gawer & Phillips, 2013).

Our volume deliberately seeks to create a bridge between organization and management theory (OMT) and information systems (IS) scholarship. Within OMT, there is a growing literature at the intersection of digital transformation and institutional theory (e.g., Davis, 2016; Deephouse, Bundy, Tost, & Suchman, 2017; Hinings et al., 2018; Hinings & Meyer, 2018; Logue & Grimes, 2019; Mair & Reischauer, 2017; Powell, Horvath, & Brandtner, 2016). In IS, there is a vibrant community of researchers leveraging institutional theory in a variety of digital contexts or developing concepts to understand how institutions embedded in digital technologies constrain and enable human behavior (e.g., Faik, Barrett, & Oborn, 2020; Leonardi & Vaast, 2016; Oborn, Pilosof, Hinings, & Zimlichman, 2021; Orlikowski & Barley, 2001) or which recognize the relationship of digital technologies and institutional change (Barrett, Walsham, Business, & Tg, 1999; Guah & Currie, 2004; Mignerat & Rivard, 2009, 2012). We believe there is much theoretical generativity in more cross-disciplinary collaborations among these communities and the mutual learning that may result.

Our paper is structured as follows: First, we take stock of recent literature and debates, presenting three institutional perspectives relevant in understanding and theorizing digital transformation. Second, we provide an overview of the contributions of the volume and how they relate to and inform these perspectives. We conclude with a discussion on future research opportunities at the intersection of digital transformation and institutional scholarship.

### THREE INSTITUTIONAL PERSPECTIVES ON DIGITAL TRANSFORMATION

We begin by taking stock of the current conversations in the literature which are developing around three key themes: (a) Institutional Logics, Technological Affordances and Digital Transformation; (b) Digital Transformation, Professional Projects and New Institutional Agents; (c) Institutional Infrastructure, Field Governance and Digital Transformation (see also Fig. 1).

#### *Institutional Logics, Technological Affordances and Digital Transformation*

If digital technologies are at the heart of digital transformation, institutional theory needs to account for the relationship between technology and institutions. Indeed, as Faraj and Pachidi (2021, p. 5) note institutional theory has “difficulty addressing the constitutive entanglement of technology in organizing.” We agree that understanding the links between technology and institutions requires more elaboration. One avenue to strengthen these links is engaging institutional logics with the concept of affordances (Faik et al., 2020). The term “affordance” refers to action possibilities and opportunities that emerge from actors engaging with a focal technology (Faraj & Azad, 2012). Technological affordances offer “possibilities for goal-oriented action that an actor or group of actors perceive in a technology as they engage with the materiality of its artifacts” (Faik et al., 2020, p. 1360; see also Leonardi & Vaast, 2016). Faik and colleagues (2020) link digital technologies and societal change by proposing technology affordances as an elemental category of institutional logics in the wider inter-institutional system, and propose IT affordances as central in the recursive relationship between institutional logics and IT-in-use. Further, they theorize how IT affordances gain scale and stability so as to enable (or constrain) societal change. Building on these



Fig. 1. Three Institutional Perspectives on Digital Transformation.

developments we ask: *How can we understand the interplay between institutional logics and technology affordances in understanding digital transformation?*

According to [Thornton and Ocasio \(1999, p. 804\)](#), an institutional logic is

the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.

An institutional logics perspective considers society as an inter-institutional system constituted by multiple institutional orders, each with their defining logics, such as the market, state, family and professions ([Friedland & Alford, 1991](#); [Thornton, Ocasio, & Lounsbury, 2012](#)). Each logic is comprised of a specific set of beliefs, values, role identities and sources of legitimacy, that guide individual and organizational action in these institutions ([Friedland & Alford, 1991](#)). In many settings, multiple logics are at play, and these constellations of logics create complex or pluralistic environments ([Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011](#)). Applying an institutional logics perspective to digital innovation and transformation offers two ready areas of conceptual purchase: (1) understanding the complexities of the environment into which digital technologies are introduced or embedded and (2) understanding how institutional logics shape technological affordances (both the design mode and the in-use mode).

Technological affordances provide the “conceptual link in the recursive relationship between institutional logics and IT-in-use” ([Faik et al., 2020, p. 1364](#); see also [Faraj & Azad, 2012](#); [Fayard & Weeks, 2014](#)). For example, studies of civic crowdfunding websites have shown that users who draw on a community logic are more likely to focus their attention on IT affordances that support community building and collective decision-making, while other users of civic crowdfunding sites draw more from a market logic and are more likely to focus their attention on affordances that enable faster and larger fundraising ([Faik et al., 2020](#); [Leonardi & Vaast, 2016](#)).

[Faik et al. \(2020\)](#) conceptualize technology affordances as an elemental category of institutional logics. That is, they focus on how user attention is activated and shaped by institutional logics, and so “the ways in which the attention of the users become intertwined with material elements of IT to produce new possibilities of action” ([Faik et al., 2020, p. 1361](#)). This builds upon previous studies that show how collective affordances may emerge when goals of multiple users generate common and shared patterns of IT use ([Fayard & Weeks, 2014](#); [Leonardi, 2013](#); [Vaast, Safadi, Lapointe, & Negoita, 2017](#); [Zheng & Yu, 2016](#)). In this way, technological affordances may become stable and institutionalized themselves, forming and generating governance structures that change the functioning of fields and institutions.

The affordances concept provides opportunity to better theorize the relationship between institutions and technology. Recently, [Oborn et al. \(2021\)](#) have shown how the digital technologies of telemedicine were appropriated in different ways, as stakeholders – state actors, managers, health professionals, and family members – were guided by their particular institutional logics. This work and that of [Faik et al. \(2020\)](#) provide some promising directions for future work to develop further our understanding of the specific dynamics between institutional logics and affordances – during the design as well as in-the-use process, and more widely in understanding institutional change in contemporary digital contexts ([Bailey & Barley, 2020](#)).

*Digital Transformation, Professional Projects and New Institutional Agents*

This second perspective addresses the conversation on how digital transformation challenges professional boundaries and jurisdictions and also generates new institutional actors and actor constellations (Hinings et al., 2018; Kronblad, 2020). These processes relate to a long-standing theme within institutional research, namely how professions shape institutions (DiMaggio & Powell, 1983; Ruef & Scott, 1998). These have an influential role “as institutional agents – as definers, interpreters, and appliers of institutional elements” (Scott, 2008, p. 223). Björkdahl and Kronblad (2021, p. 1) suggest that “institutionalized and professionalized actors are reluctant to respond to change” and that “attempts to change work practices through digital technologies remain understudied.” In addition, digital transformation also encompasses the emergence of new professional actors and institutional change agents due to the rapid rise, spread and pervasiveness of social media. Indeed, how actors using social media affect institutional conditions is of great interest in recent research (Deephouse et al., 2017; Etter, Ravasi, & Colleoni, 2019). Thus, we ask: *How does digital transformation affect existing professions and their professional projects? And what new institutional agents are emerging through digital transformation that shape institutional conditions and processes?*

Established, traditional professions (e.g., doctors, lawyers) have considerable control over their jurisdictions (i.e., defining what and how work is done, including defining appropriate values and norms as well as criteria for entering the profession and making a career) yet are facing increasing pressure and challenges from digital technologies that consequently change the institutional context of their work (Hinings et al., 2018; Oborn et al., 2021; Smets, Morris, von Nordenflycht, & Brock, 2017). For example, Kronblad (2020) found in the context of the Swedish legal industry that legal tech start-ups utilizing digital technologies are questioning the dominant professional logic through value-based or subscription-based pricing; however, many traditional law firms remain reluctant to change. Björkdahl and Kronblad (2021) find in a study of the digitalization of court processes in response to the COVID-19 crisis that judges may be more willing to participate in digitalization processes if court managers not only emphasize efficiency gains but also how digitalization fits judges’ professional ethos (i.e., arriving at fair verdicts). This points to an important gap in the literature, namely a more nuanced understanding of the conditions when professions are more responsive to digital transformation and when are they more likely to resist.

Another related stream of literature in institutional studies has examined the emergence and institutionalization of new types of professions or professional projects that seek to establish occupational categories and fields of expertise, improving status structures and rewards. Examples include the evolution and construction of management consulting and consultants, engineering consultants, strategists, designers in creative agencies and journalists (Hinings, Muzio, Broschak, & Empson, 2015; Liu, 2018; Malhotra & Morris, 2009; Muzio, Kirkpatrick, & Kipping, 2011; Whittington, 2019). In this line of research, there is a call to examine new professional projects surfacing as part of digital transformation (Hinings et al., 2018). Empirical work on this issue is scarce. Firk, Hanelt, Oehmichen, and Wolff (2021) find that corporations created new c-level positions in response to digital transformation. Vaast and Pinsonneault (2021) shed light

on the ambiguous effect of digital technologies on new professions such as data scientists. Vaast and Pinsonneault (2021, p. 1087) find that digital technologies “make the persistence of an occupation possible while also potentially rendering it obsolete, and they magnify both the similarity and distinctiveness of occupations with regard to other occupations.”

We also see new actors entering the stage and claiming a role as institutional agents. These institutional agents differ from other actors due to their distributed and fluid nature. For example, various scholars point to crowds and communities as new institutional agents leveraging social media platforms (e.g., Facebook, Instagram, YouTube, Twitch, TikTok, etc.) affecting institutional conditions (Barrett, Oborn, & Orlikowski, 2016; Dobusch & Schoeneborn, 2015; Etter et al., 2019; Faraj et al., 2011; O’Mahony & Lakhani, 2011; Soublière & Gehman, 2019; Stalder, 2018; Toubiana & Zietsma, 2017; von Hippel, 2017; Wexler, 2011). Crowds are a large and rather anonymous set of actors engaging in activities online and emerging in an ad hoc fashion; online communities are social structures consisting of laterally related actors practicing interpersonal exchange, sharing a common activity or concern or have overlapping interests and beliefs (Brint, 2001, p. 8; Dobusch, Gegenhuber, Bauer, & Muller-Birn, 2013; Dobusch & Kapeller, 2017; Wexler, 2011). Social media afford “broadcasting” capabilities to crowds and communities (Bauer & Gegenhuber, 2015), that is being able to reach a critical mass with one’s message; crowds and communities can rapidly assemble as a “critical mass” in any given context beyond physical constraints or geographical boundaries. The user-generated content and reach of crowds and communities undermines the journalists’ professional jurisdiction and identity (Lewis, 2012). What is more, organizations increasingly understand that crowds and communities are important social evaluators. For a good reason: crowds and communities can question an organization’s legitimacy through social media (Deephouse et al., 2017; Etter et al., 2019; McCarthy & Glozer, 2021). Apart from hiring public relations (PR) professionals managing relations with journalists, organizations increasingly rely on “community managers” to engage in a dialogue with crowds and communities. These dialogues, in turn, even can affect organizational decisions-making (Etter et al., 2019; Gegenhuber & Naderer, 2019; Glozer, Caruana, & Hibbert, 2019).

Clearly, crowds and communities matter as institutional agents. We need to learn more about how crowds and communities claim territory in the jurisdiction of existing professions. Moreover, we need to know more about the interactions between crowds and communities and other institutional agents, such as media companies and their professional staff (i.e., journalists).

### *Institutional Infrastructure, Field Governance and Digital Transformation*

The third perspective focuses on the how digital transformation affects institutional fields, their infrastructure and thus their governance. Digitally enabled forms of organizing such as digital platforms (e.g., Google, Amazon, AirBnB, Uber, etc.) put at stake existing institutional conditions but also change and

shape the relational networks and configurations that provide forms of governance within and across fields (Alaimo, 2021; Bucher, Schou, & Waldkirch, 2020; Frenken, Vaskelainen, Fünfschilling, & Piscicelli, 2020; Maurer, Mair, & Oberg, 2020; Ozcan & Hannah, 2020; Thomas & Autio, 2014; Wruk, Schöllhorn, & Oberg, 2020). Since the “concept of an institutional field is one of the cornerstones of institutional theory” (Zietsma, Groenewegen, Logue, & Hinings, 2017, p. 1), we need to better understand how digitally enabled forms of organizing affect field processes. Against the backdrop of current debates on how to regulate platforms and that institutional scholarship has a tradition concerned with the “regulative aspect of institutions” (Scott, 2008, p. 52), we ask: *How has field governance enabled, changed or hindered activities in response to digital transformation?*

The concept of institutional infrastructure provides a helpful lens through which to examine these changing conditions. Conceptually, institutional infrastructure is defined as “cultural, structural and relational elements that generate the normative, cognitive and regulative forces that reinforce field governance” (Hinings, Logue, & Zietsma, 2017, p. 163) and so enables a better understanding of the governance of diverse yet interdependent sets of organizations (Zietsma et al., 2017). Yet it may also vary in degree of quality and elaboration. For example, many studies show how the professional services fields such as law or accounting have a highly elaborated institutional infrastructure, providing a stable, tightly controlled and highly normative space of interaction (Greenwood, Suddaby, & Hinings, 2002; Suddaby & Greenwood, 2005; Smets, Morris, & Greenwood, 2012). The field is underpinned by mandatory membership; licensing; training and professional development; monitoring; and disciplining of behavior by associations, firms and educators. Institutional infrastructure here may include categories, organizational models and templates, status differentiators, regulation, interest groups and events (Hinings et al., 2017) that together provide a set of informal or formal rules shaping how activity occurs with a field.

Within this perspective, one line of research focuses on the role of new forms of digital organizing such as platforms as a source of governance infrastructure for fields of activity (be that via platforms such as Apple that app developers are required to use or ranking and rating platforms such as TripAdvisor). These platforms become increasingly important and establish the rules of the game, the technological means that shape and determine interactions and activity within and across fields (Acs, Szerb, Audretsch, & Komlósi, 2021; Alaimo, 2021; Gawer, 2014; Kornberger, Pflueger, & Mouritsen, 2017; Orlikowski & Scott, 2014). For example, Logue and Grimes (2019) show how a platform generates and elaborates further institutional infrastructure to govern interactions for civic crowdfunding, focusing on creating bridges between actors, boundaries around the activity and blueprints to prescribe how the activity should occur. Other platforms, often run by large corporations such as Google, can shape practices and rules of the game within and across several fields of activity or ecosystems (Alaimo, 2021; Jacobides et al., 2018; Kenney & Zysman, 2016; Zuboff, 2019). For example, consider the spread of rating algorithms (i.e., review practices) across platforms, which impact various actors’ practices in numerous fields, ranging from tourism to commerce (Cutolo & Kenney, 2020; Glaser, Pollock, & D’Adderio,

2021; Kornberger et al., 2017; Orlikowski & Scott, 2014). That corporations running platforms are powerful actors within their respective fields is not surprising, yet the scale of their power vis-à-vis traditional generators and providers of governance infrastructure (such a government and regulators) needs examination of the degree of change in institutional conditions (Frenken et al., 2020).

Nevertheless, platforms – as pieces of institutional infrastructure – are not kings. Regulation matters in the digital age too (Frenken et al., 2020; Hinings et al., 2018). One source of regulation originates from within a field, particularly in response to institutional pressures. Gegenhuber, Schüßler, Reischauer, and Thäter (2022) document private regulation efforts of small- and medium-sized crowdwork platforms in Germany to build an institutional infrastructure allowing them to differentiate themselves from exploitative practices associated with American platforms. These platforms engaged in a social partnership dialogue with a trade union to build an institutional infrastructure outlining enforceable rights and duties of the involved parties.

Another source of regulation are lawmakers and regulators in various (supra-)national contexts (Gawer & Srnicek, 2021; Koutsimpogorgos, van Slageren, Herrmann, & Frenken, 2020; Schüßler, Attwood-charles, Kirchner, & Schor, 2021). Certainly, there is a difference between how the European Union and US government approach the topic. Indeed, Davis and Sinha (2021) point out that the (supra-)national institutional contexts are an important source of variation on how platforms conduct business (see also Uzunca, Rigtering, & Ozcan, 2018). They discuss how ride-hailing platforms operate differently in the United States with weak regulation in comparison to the European countries such as Germany or Sweden where regulatory frameworks are moderately strong.

The history of introducing new technology teaches us that an essential ingredient shaping regulatory outcomes is disruptors' but also incumbents' and opponents' framing strategies (Geels & Verhees, 2011; Fuenfschilling & Truffer, 2014). Adler (2021) finds that companies like Uber convinced regulators in Massachusetts that current ways of taxi regulations impeded innovation. However, we need more insights how “framing contests” (Kaplan, 2008) play out in the domain of new forms of digital organizing and digital technologies.

In sum, we identified three institutional perspectives essential for inquiring into digital transformation. First, the perspective on affordances and institutional logics provides theoretical purchase to meaningfully theorize and explore the relationship between institutional forces and technology. Second, the perspective on professions, professional projects and new institutional agents zooms into the actors responding and driving digital transformation. This is vital since digital transformation not only alters the rules of the game but also who is part of the game, who wins and who might lose. Third, the perspective of institutional infrastructure and governance highlights the role of digitally enabled forms of organizing, such as platforms, in creating field-shaping institutional infrastructures. Given their influential position, there is growing interest in understanding the framing and regulation contest around them, which affects the cultural, structural and relational elements of these institutional infrastructures.