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Forced Adoption: A new Phenomenon of Information Systems Adoption

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Abstract

The adoption of Information Systems (IS) in an organizational context often follows a mandated process: management decides to implement the IS and the employees are supposed to adopt the IS. The regulations enforcing remote work during the COVID-19 pandemic have changed this process. Organizations around the world saw themselves forced to adopt new IS overnight. This "forced adoption" unfolded unprepared and unstructured, induced by an uncontrollable external factor instead of a traditional management mandate. Consequently, forced adoption challenges existing knowledge about IS adoption. We provide a first conceptualization of the term "forced adoption" and outline our research approach for examining forced adoption of IS, work practices and leadership styles in the context of the COVID-19 pandemic.

Keywords

Forced adoption, changing nature of work, work practices, leadership.

Introduction

The COVID-19 pandemic has caused unprecedented disruptions at all societal levels. The measures to limit the spread of the virus, such as social distancing and lockdowns, forced organizations to adapt their business operations within a few days' notice. Most office workers were forced to work remotely, giving an extreme rise to the use of collaboration technologies – a change accompanied by technological, social and organizational challenges (Richter 2020; Waizenegger et al. 2020). As organizations did not have time to prepare and implement appropriate change processes, the employees had to appropriate new collaboration technologies and ways of working. Moreover, leadership and management often had to change their usual approaches to accommodate this new and uncertain situation (Chamakiotis et al. 2021).

IS was, and still is, crucial for maintaining business continuity during the pandemic (Carugati et al. 2020; Marabelli et al. 2021). In untroubled times, IT implementation and adoption are characterized by *structured* change processes and *slow* adoption (Law and Ngai 2007; Nandhakumar et al. 2005), giving humans enough time to explore and learn (Gallivan et al. 2005). However, with the COVID-19 pandemic, an uncontrollable *external factor forced* organizations to act quickly, leaving no time for established implementation approaches. To describe this unprecedented phenomenon, we suggest the term *forced adoption*, which refers to the *externally-induced forced adoption* of IS, which is mostly out of the control of organizations and individuals.

Since the beginning of the pandemic, IS scholars have investigated a plethora of phenomena surrounding the use and effects of IS during the pandemic, including contact tracing, data analytics, fake news in social media, and enforced working from home (Ågerfalk et al. 2020). Whereas scholars have continuously been inquiring IS phenomena related to and caused by the pandemic, especially working from home and working from anywhere (Sako 2021), the rapid adoption of IS and the related changing nature of work in times of crises remain scarcely researched (Carugati et al. 2020).

In the corporate realm, as there was no time for a structured change or transformation processes, companies experimented with different work practices and leadership strategies and thus collected a wealth

of experiences (Sako 2021; Whillans et al. 2021). However, they require a more profound and structured inquiry to identify successful changes and strategies that emerged due to forced adoption and that should be sustained in the future. We are now in an ideal situation to investigate organizations' and employees' experiences and experiments as a reaction to the forced adoption at different stages of the pandemic. Thus, in the research project outlined in this paper, we investigate how forced IS adoption unfolds and how it impacts work practices and leadership strategies. Our research questions are:

> RQ 1: How did the forced adoption of information systems affect employees and their work practices?

> RQ 2: What role did leadership play in forced adoption scenarios during the pandemic?

In the remainder of this paper, we elaborate on the background and related work of our research (Section 2) and describe our planned research design and areas of interest in our evolving project (Section 3).

Background

In contrast to other business software such as ERP systems, the use of enterprise collaboration systems (ECS) is usually voluntary and there are no or rather flexible usage prescriptions (Richter and Riemer 2013). Leaders tend to give their employees time to make sense of the platforms and incorporate them into their work practices. They set the context, rather than instruct uses (Greeven and Williams 2017). With the recent pandemic, ECS suddenly became essential means of work. Organisations were forced to adopt ECS within short time frames, contrasting the usual ECS adoption and use characteristics.

The most common adoption type observed when companies implement new IS is *mandated adoption* (Brown et al. 2002), which can be traced back to Rogers' diffusion of innovations theory. In mandated adoption, a "system exerts pressure on an individual" (Rogers 2003, p. 307) through an internal management *mandate* to adopt the innovative technology. This happens with the aim to improve processes or achieve a competitive advantage, for example, in the context of the implementation of a new ERP system (Heidenreich and Talke 2020, p. 281). In the IS literature, mandated adoption is characterized as a plannend and structured change process, in most cases following a dedicated project plan. Employees are provided with usage prescriptions and user trainings to support appropriation of newly introduced IS (Gallivan et al. 2005). Scholars have found that such authority-based approaches are often met with resistance by the individuals (Brown et al. 2002), resulting in phenomena like workarounds (Alter 2014) and shadow IT (Haag and Eckhardt 2017). A possible consequence of adoption resistance is punishment to prevent non-compliant behavior and IT use (Xue et al. 2011).

The term forced adoption was first used by Ram and Jung, who described it as a situation "when the decision-making unit of an organization has already decided to adopt the innovation, but acceptance from the individual 'end-users' within the organization is uncertain" (Ram and Jung 1991, p. 117). In more recent research, forced adoption has been understood as considering the *individual perspective* in the context of mandated adoption, describing the situation in which the individual is unwilling but has no choice but to adopt new IS (Heidenreich and Talke 2020). In light of the recent pandemic, we suggest complementing those perspectives with an *enforcing external factor*.

In the case of forced adoption, in contrast to mandated adoption, the whole organization, including its management and employees, is forced to change. Due to the short notice, there are no structured decision or change processes. Organizations have to act rapidly to sustain a certain level of normal operations making the whole forced adoption process unfold in an unplanned and unstructured manner. This distinguishes our conceptualization from forced adoption scenarios in government-imposed policies (e.g. IFRS) where changes are known long before they become effective (Christensen et al. 2015). Table 1 contains the main characteristics of forced adoption (and contrasts those of mandated adoption).

Forced adoption is a new phenomenon given rise by the COVID-19 pandemic. We suggest seizing the term forced adoption, as in the context of our research, with COVID-19, the IS adoption was "mandated" by an external factor out of the organizations' control. As the underlying decision to adopt new IS was out of the oraganizations control, and the whole adoption unfolded rapidly and unstructured, forced adoption challenges existing knowledge about IS adoption. With our research, we seek to investigate and understand this new kind of IS adoption.

Category	Characteristics	Mandated adoption	Forced adoption
Source of enforcement	Pressure exerted through	Internal management mandate	External factor
	Who forces whom?	Organization forces individual	External factor forces organizations and individuals
Change	Trigger	Decision based on strategic plan	Ad-hoc decision based on emergency situation
	Motivation	Improve processes or IT, achieve competitive advantage	Sustain mode of operation
Introduction	Change process	Planned and structured, based on established methods	Emergent
	Timeframe	Project plan with different stages	Rapid and simultanous
	Appropriation through	Exploration (sense making) and Promotion (usage prescriptions)	Exploration and workarounds
Concept	Research	Well-conceptualised	Less-developed concept
	Practice	Common for IS projects	New situation

Table 1. Conceptualising forced adoption

Research Design & Focus Areas

As depicted in Figure 1, we follow a theory-building case study-based research design (Cavaye 1996). A case study-based approach was chosen because it allows gaining a deep understanding of the studied organizations and its environmental factors. For our research, this is a suitable approach because we seek to understand and document the experiments and experiences companies made with changing work practices and leadership styles as a result of the forced adoption. We aim to conduct our study in multiple companies of different sizes and from different industries in Europe and Pacific-Asia. As we write this paper, three companies (IT services firm, internet service provider and beverage manufacturer) have volunteered to participate in this research project. The primary data source for our case studies is semi-structured interviews. Per case, we conduct at least two interviews at the leadership level and at least six interviews at the employee level.
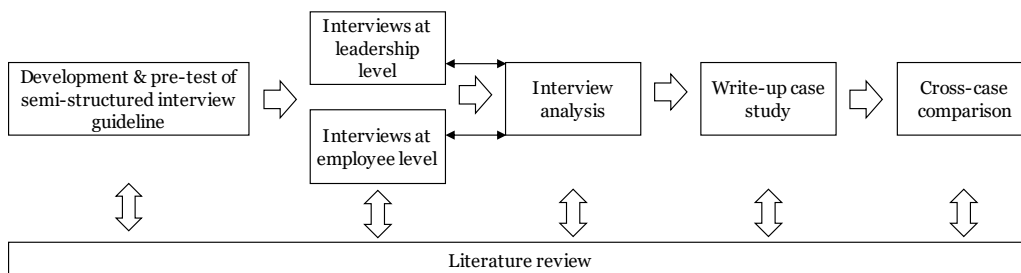

Figure 1. Research design

The employee interviews focus on the adaptation of new IS and work practices. We seek to understand the drivers for establishing these new work practices and to identify work practices that have emerged as a result of the forced adoption and that were perceived as successful and should sustain in the long term. Another aspect addressed in the interviews are personal experiences and reactions of employees resulting

from the forced adoption. With the leadership interviews we aim to identify contextual factors and conditions surrounding the studied organization and how these changed over time. These factors can include crisis interventions made by the company. The interviews also explore new strategies implemented to adjust employee leadership and we aim to identify and document how leaders communicated with their employees in different phases of the pandemic (which channels, intensity, information). Finally, we seek to understand how and to which extent organizations supported employees in coping with the consequences of forced adoption. The main areas addressed in the interview guidelines are depicted in Figure 2.
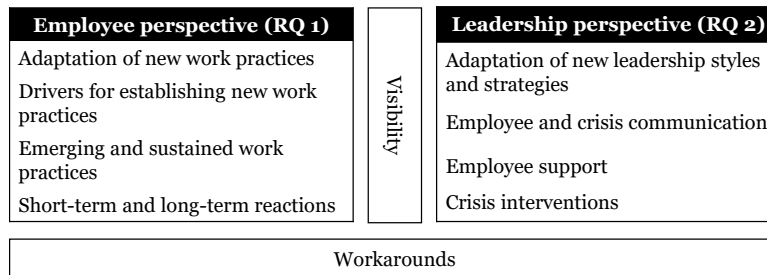
Employee perspective (RQ 1)	Visibility	**Leadership perspective (RQ 2)**
Adaptation of new work practices		Adaptation of new leadership styles and strategies
Drivers for establishing new work practices		Employee and crisis communication
Emerging and sustained work practices		Employee support
Short-term and long-term reactions		Crisis interventions
Workarounds		

Figure 2. Interview focus areas related to forced adoption

Visibility and *workarounds* are two areas affecting employees and leaders. While visibility is a central theme in telework (Illegems and Verbeke 2004), it became an issue on a larger scale than before with enforced mass remote work. In interviews with employees and leaders, we investigate visibility in the context of forced adoption. As, especially at the beginning of the pandemic, employees and leaders were confronted with a new situation, short-term solutions to cope were required. We investigate these spontaneous and short-term solutions as workarounds to identify if and which workarounds were transferred to regular work practices. We currently prepare and schedule the interviews (approx. 60 minutes length each) and extend the pool of participating companies.

The interviews are recorded and transcribed verbatim for facilitating qualitative and thematic analyses. The transcripts and interview findings are looped back to the interview participants for member checking. The interview findings and other supplied materials are then used to write the case studies. The core of the case studies is a long-term view including a timeline that depicts company-specific interventions, emerged key work practices and leadership strategies in the context of the company-specific circumstances and regulations imposed by the government. Our key interests are the alterations between phases with enforced remote work and normal operations. The case studies are also subject to member checking. As we conduct our study in multiple companies with different characteristics and in different regions, our research design includes a cross-case comparison to identify similarities and differences across the case studies.

Contributions and Outlook

In conversations to prepare the interview study, company representatives have confirmed that the phenomenon of forced adoption of IS and the subsequent effects on work practices and leadership styles are topics of high interest to them. The timing of our research allows us to draw from a wealth of experiences made by companies in the context of a unique phenomenon in IS research. We expect to contribute to theory by providing a new perspective and deeper theoretical understanding of forced adoption of IS, which to date remains scarcely researched. Based on the cross-case comparison, we aim to shed light on the changing nature of work practices due to forced adoption and theorize on the role of IS and the external factor (COVID-19) in forced adoption. A particular contribution is made by examining the role of malleable collaboration systems in adapting work practices. The cross-case study design allows us to conclude on employees' and leaders' reactions and adaptations to crises.

Our study is intended to contribute to practice by identifying work practices and leadership styles that emerged due to forced adoption. As the study findings are circulated anonymously between the participating organizations, knowledge transfer of successful practices and strategies is facilitated. The case studies allow drawing a picture of the impact of forced adoption on work practices and leadership styles on a long-term scale. We aim to derive guidelines that can support and assist employees in transforming work practices.

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