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Digital Tactics: Resolving Emerging Socio-Technical Tensions in the Digital Workplace

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Abstract

Knowledge professionals are increasingly facing various tensions in their digital workplace brought by emerging lightweight IT and existent heavyweight IT and the processes and practices they support and enable. In this paper, we uncover five digital tactics, which knowledge professionals utilize daily to resolve these tensions when carrying out and ameliorating their productivity and well-being at work. While existent IS-research recognizes these socio-technical tensions as an IS-strategic phenomenon that managers resolve by deploying various strategic responses, we illuminate how digital tactics on individual, employee level is an equally important element in resolving these tensions and reaching strategic goals during digital transformation. Based on data from group interviews with 22 knowledge professionals, we abstracted five different digital tactics of improvisation, accountability, maneuvering, fostering a both/and culture and acceleration, that employees adopt to resolve tensions. Going forward, we suggest broadening our understanding of the socio-technical realm with the concept of digital tactics.

Keywords

Digital tactics, socio-technical tensions, digital practices, digital workplace

Introduction

Various tensions between, for example, control and autonomy, stability and flexibility, and exploration and exploitation, propel organizational life (Farjoun, 2010; Smith et al. 2016). Studying tensions within organizations has a long tradition in the domain of Information Systems (IS) and Organizational Change theories (Besson & Rowe, 2012; Gregory et al. 2015; Lyytinen & Newman, 2008; Marabelli & Galliers, 2016; Orlikowski & Scott, 2021). For example, scholars of IS-strategy account for tensions between the formal, top-down approach that exploits existing knowledge and resources, and the more informal, improvised approach that explores emergent digital opportunities and resources at hand (Marabelli & Galliers, 2016). In the contemporary digitalized and knowledge intensive workplace, the former approach relies on formalized 'business processes' that consist of specific, well-proven steps to carry out certain tasks that need high level of consistency and predictability. These processes are predominantly supported by heavyweight IT (HIT) i.e., the IT systems, enabled by systematic specification and realized with proven technology through software engineering approaches and managed by IT professionals (Bygstad, 2017). These IT systems are deemed 'heavyweight' because of their persistence and stable nature. Examples are formalized ERP-, CRM-, KM-, DM-systems reflecting a company-wide approach to how things are done. The latter approach covers the more autonomous and creative inputs from individuals and groups to continuously ameliorate and innovate their work-practices. We view practices as portraying a more holistic and overarching approach that is enacted by a group or an individual, who autonomously combine several processes with coordination and collaboration activities into new approaches. Within the last couple of years, these emerging overarching practices have been combined with lightweight IT (LIT) i.e., the technology that is inexpensive, easy to use, mobile and flexible; and does not involve IT specialists, but instead is brought in by individual knowledge workers, with a purpose (Bygstad, 2017). These technologies are deemed lightweight as they are continuously changed and never settle into a fixed approach. Examples are cloud services such as Slack, Trello, Wonder, Zoom, Padlet,etc.

These two different phenomena: 'processes formalized with HIT' and 'new practices enabled by LIT' exist simultaneously and inhabit the socio-technical realm of the digital workplace. Tensions arising in and between these two different in nature phenomena bring transformational effects in the day-to-day work carried out by knowledge professionals (Fischer & Baskerville, 2018; Fischer & Baskerville, 2020). Even though largely individual knowledge professionals in their daily work experience these tensions, we have limited knowledge about how these tensions are perceived, approached and resolved. Due to increased digital transformation of workplaces (Orlikowski & Scott, 2021; Wessel et al. 2020; Urbach & Röglinger, 2019) we suggest that some of these tensions are better directly addressed and resolved by individuals engaged in the play out of a tension, rather than by a strategic management level approach. We draw on data from group interviews with 22 knowledge professionals conducted during 2017-2019 to answer the following question: *How do knowledge workers resolve emerging socio-technical tensions in the digital workplace?*

We find that knowledge professionals resolve socio-technical tensions they face through 'digital tactics', which stem from their digital practices, to obtain well-being and productivity. We argue that digital tactics are subsets of digital practices, which have a specific purpose, namely the resolution of socio- technical tensions. To emphasize more on that specific purpose of digital practices, we refer to them as digital tactics. Thus, digital tactics, which are closely related, yet distinct from digital practices, constitute an attempt to illuminate and frame an important, but under-researched source of transformation. While various socio-technical tensions have been documented, we still do not understand in-depth how individuals resolve them. Further, we argue that these digital tactics can become vital to the successful transformation of organizations. Accelerated by the current COVID-19 pandemic, the knowledge intensive workplace has rapidly become even more digitalized, giving rise to new forms of tensions (Fischer, 2020; Marabelli et al. 2021). Resolving tensions by elevating the socio-technical nature of digital tactics applied by knowledge professionals might be a way forward to decrease the negative consequences on employee well-being and productivity.

Towards conceptualization of tensions in the socio-technical realm

As our starting point, we conceptualize the socio-technical realm in the digital workplace as the meeting point between people and technology. The realm consists of a social and a technical partition that corresponds equally to fulfill the intentions with the arrangement i.e., productivity and well-being (Fischer, 2020; Sarker et al., 2019). For conceptual clarity and for the purpose of this paper, we suggest that these two partitions contain two artefacts each. The social partition holds 'established strategic business processes' and 'emergent practices'. The technical partition holds 'HIT' and 'LIT'. Because of their different nature, tensions emerge within the social artefacts (e.g., established processes and the emerging practices) and between the technical artefacts (e.g., HIT and LIT). Tensions can also emerge between the social and technical partition (e.g., emergent practices and HIT) (see figure 1). Tensions capture the coexistence of two intertwined opposites i.e., stability/flexibility, autonomy/control (Smith et al., 2016). The two opposites coexist *at the same time*, leading to the principle of 'contradictory complementarity', which holds the opposite representations of the same reality by virtue of an internal relation (Donati, 2014). Tensions remain latent or hidden, and become visible when activated (Smith et al., 2016). When salient, knowledge workers experience them in their day-to-day activities (Seo & Creed, 2002; Smith et al., 2016), they mobilize resources to respond to them in a way determined by their specific interests (Seo & Creed, 2002). Thus, knowledge workers engage in various interactions with one another and with available technologies while reconciling tensions (Carlo et al., 2012). By tracing the practices of workers, embedded in the social-technical context in which the tensions emerge, our preliminary study adopts a micro approach (Arvidsson et al., 2014). We assume that by looking at different practices of knowledge professionals, we can abstract and identify several *digital tactics,* which knowledge workers in the digital workplace use to manage the experienced tensions within and between the artefacts. In contrast to tactics, which have been used in IS research before (e.g., managing change; see Stoddard & Jervenpaa, 1995), *digital tactics* refer to practices used to address socio-technical tensions. We view digital tactics as both planned and ad hoc approaches that deal with the demands of the moment in pursuit of an overall goal. Managing an existing tension requires creative digital tactics that transcend the polarization of the focal opposites (Adler et al., 2009). We suspect that digital tactics does not eliminate the existing opposites, but rather brings consistency by balancing them (Fischer & Baskerville, 2018).

Abstracting Digital Tactics

We used data from a qualitative exploratory study (Fischer & Baskerville, 2018), performed in 2017 and data from a repetition of the same exploratory study in 2019, gathered to gain knowledge on socio-technical change. The sample consists of 22 knowledge professionals from different industries, engaging with technology to support processes and practices as part of their daily work. The collected data was produced during two rounds of e-focus group discussions, with 11 participants in each resulting in 75 pages of data. We re-assessed the data in September 2020 and coded for tensions, identified practices for managing tensions, and abstracted digital tactics. As an unlocking device into the complex phenomena, we applied ethno-methodology. Ethno-methodology studies the largely implicit methods that members of an ethno-group in a setting use when creating and maintaining the recognizably orderly properties of that setting (Neyland & Whittle, 2018). We wanted to reveal how knowledge workers manage tensions by illuminating the ethno-methods. After revealing the ethno-methods, we abstracted them as digital tactics.

Digital tactics are a way of resolving the emerging tensions within and between the artefacts in the socio-technical realm within a digital workplace. The digital tactics performed by individuals are a way to establish a basic social order to reconcile tensions emerging between existing and new technologies (tensions in and between IT-artefacts and social artefacts). Thus, we view digital tactics as the embedded social-technical activities, which workers apply in their day-to-day work when facing various tensions brought by the increased digitization of their workplace. In figure 1, we illustrate our suggested conceptualization of the socio-technical realm popularized by social and IT-artefacts. We indicate where tensions may occur within and between these artifacts; and we have positioned our abstracted digital tactics (the wave shaped squares) performed at employee level. Below the figure, we explain in detail the five digital tactics, which we identified during our analysis.

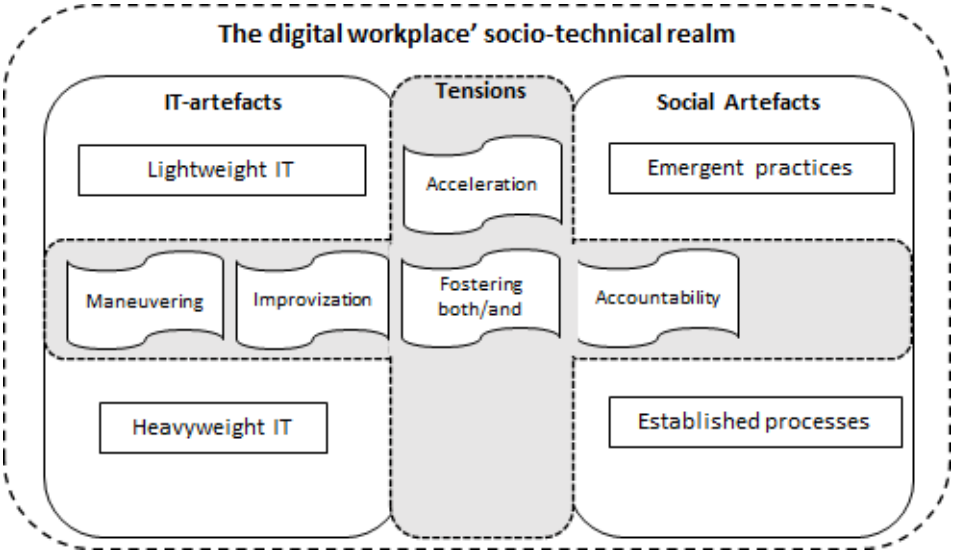

Figure 1. Digital tactics and tensions within the socio-technical realm of a digital workplace

Maneuvering: Formal processes and established HIT direct a large part of work-activities as they are perceived as a stabilizing element that can counterweigh difficulties stemming from the variety of different behaviors and individual preferences brought in as LIT. Thus, a tension between stability from HIT and agility with LIT arises. While rearranging for better fit, well-being and smarter working, the overall guidance comes from organizational processes. The respondents thus maneuver within the overall direction set by HIT, while turning to more flexible and agile work-modes when perceived as an improvement to both individual work and group work. For example, individuals tried out new technologies to enhance their time management (using analytics to track and change email behavior) to decrease the time, they spend writing emails. The tactic provides the employees with maneuvering space for improvements.

Improvisation: HIT and established processes do not always allow for optimal performance. They are experienced as decreasing productivity at group and individual level. To amend this, individuals introduce new and flexible technologies that allow them to improvise in their attempts to stay productive and to achieve job-satisfaction. For example, on a group level, individuals improvise by suggesting LIT for enhancing intergroup communication and visibility of collected information in Slack, Trello, Google docs, circumventing other more established communication channels and document management systems. This tactic provides room for innovating and ameliorating the areas that are deemed ineffective and counterproductive in HIT.

Accelerating: Processes are relatively more static than emerging practices. This discrepancy leads to a new tension. While there is a positive acknowledgement of the importance of HIT and processes and workflows, they also have a downside of infusing interruptions perceived as long and slow decision-making processes into people's work. It does create a feeling of being slowed down and interrupted. For example, employees try to counter inertia by accelerating time and speed of their individual work with varying productivity hacks to provide better concentration and focus. As a result, the changes occurring in individual practices accelerates, while changes in the processes occur at much slower speed. In contrast to the tactic of improvisation, this tactic involves the social artefact of practices. This tactic provides a sense of being in control.

Accountability: As individuals adopt new technologies, used side-by-side with existing technologies, a new tension emerges between autonomy and the need to control the use within an organizational context. While the use of HIT is well-regulated, through business processes and workflows, the emerging use of LIT does not follow strict rules and guidance, leaving everyone to use them as they see fit. While it is easier for individuals to work in such a manner, there is a limit to autonomy. As a result, people put forward various informal and verbal guidelines, constituting a set of best practices to govern the use of emerging technologies at group level. For example, seeking agreement on when to send and respond to chat and messages in different channels, was necessary. This tactic establishes accountability that involves practices and LIT.

Fostering both/and culture: Culture and social norms must accommodate work done in two modes simultaneously: stability and agility. Processes as an enabler of stability and control of data is accepted, but only if a simultaneous empowering of people to explore new ways of working is supported. Thus, a tension between individual empowerment and compliance with existing processes emerges. Concerns that HIT and processes can become too rigid and slow; and LIT fostering too loose and fast-changing practices, are raised. For example, an organizational culture that promoted compliance with a few, but strict processes, while simultaneously lending flexibility and freedom at group and individual level to cope with new emerging situations, was developed. In contrast to the maneuvering tactic, this tactic is used to foster cultural norms around the importance of a minimal set of rules to follow.

Moving Forward and a Research Agenda

To the best of our knowledge, these digital tactics for resolving socio-technical tensions in the digital workplace have not been mentioned explicitly in relevant literature at the level of individual knowledge workers' daily efforts to ameliorate productivity and well-being. We have suggested a simple conceptualization of the socio-technical realm with five digital tactics, which knowledge professionals use in their daily work to resolve emerging socio-technical tensions stemming from the use of established IT technologies and emerging digital technologies in an ever-increasing digital workplace. As such we find that these tensions propel digital transformation, yet only if resolved. We find the digital tactics to be an important, but under researched phenomena that seem to play a significant role in the transformation of the digital workplace. Understanding how knowledge professionals by and among themselves ameliorate the socio-technical realm to continuously fit the changing demands in their jobs is important. In addition, making room for digital tactics to evolve, can enable every member of the organization to participate in reorienting the socio-technical realm for well-being and productivity. This can aid managers and leaders to focus only on the larger-scale unresolved tensions from a more strategic level. Hence, we argue that IS strategists need to be more aware of the concept of *digital tactics* applied by individual knowledge professionals when reconciling the rising socio-technical tensions illuminated in this abstract. By exploring the importance and existence of digital tactics as an enabler, we put forward a research path that can provide

a novel perspective on how IS-managers can support the reconciliation of tensions within and between the IT- and social artifacts in the socio-technical realm in the digital workplace using creative digital tactics.

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