

Introduction to Designing for Digital Mini-track

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This mini-track focuses on how we can design organizations at multiple levels, spanning job, unit, business process, and organizational design to develop appropriate digital and managerial capabilities and set up the work context so as to fully leverage the functionality of technologies in supporting the digitalization process. As the current digital infrastructures are becoming more complex and technologies are encroaching upon employees, the mini-track deals with issues that examine the responsiveness of digital and IT infrastructures, how they interact with organizational, unit and job design, and, taking a top-down approach, how managers can design jobs and work processes in order to overcome digital encroachment. In addition, taking a bottom-up perspective, the mini-track examines how individuals can adapt to the digitized work changes within the appropriate design setting. This has important implications for individuals and their social behaviors in a context of more or less digitized work settings.

In the first paper entitled “How Autonomy is Used in Information Systems Research: Status Quo and Prospective Opportunities”, Sebastian Weber, Michael Klesel, Frederike Marie Oschinsky, and Bjoern Niehaves present a systematic literature review on how autonomy is used in Information Systems (IS) research. The authors position autonomy as a pivotal concept that allows researchers to investigate important aspects, such as job-related outcomes, in IS research. The authors’ results show that the concept of autonomy has widely been used to extend IS theories, that the concept itself is frequently operationalized as a unidimensional concept, and that there are several undeveloped opportunities to contextualize autonomy for the IS discipline. The paper identifies several promising avenues for future research, such as developing a construct to measure IS-specific autonomy, investigating the effects of it on outcome variables (such as job satisfaction or IT satisfaction), and conceptualizing and evaluating a multi-dimensional measurement instrument that includes commonly used dimensions of autonomy as well as

new dimensions (such as instrument autonomy) in order to make it more relevant for IS research.

In the second paper entitled “MFA is A Necessary Chore! Exploring User Mental Models of Multi-Factor Authentication Technologies”, Sanchari Das, Bingxing Wang, Andrew Kim, and L. Jean Camp focus on understanding users’ mental models and risk perceptions regarding online data security. The authors investigate users’ understanding and usage of multi-factor authentication (MFA) while specifically focusing on their mental models and social behaviors in a work setting. Through semi-structured interviews with 28 individuals (11 experts, 17 non-experts), while focusing on their risk perceptions, MFA usage, and understanding of required technologies, the authors identify that experts treated MFA as a useful added layer of authentication, while non-experts did not perceive any additional benefits of using MFA. These non-experts are less likely to take necessary actions for mitigating risks and protecting their online data security. The research emphasizes the importance of understanding users’ risk perceptions. From a technological perspective, improvements on MFA should be made to provide more accessible tools that cater to users without technical backgrounds. To improve users’ risk awareness, proper and effective communication and education on risks and security measurements should be established by service providers and administrators.