

“Better Technologies for a Better World” – Introduction to the Minitrack on Dark Sides of AI and Digital Technologies:

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1. Background

As the promises of digital and intelligent technologies, such as artificial intelligence (AI), social media, and smartphones, have rendered them a major part of our social and personal lives, these paradoxical technologies can also present various unwanted and negative consequences with varying degrees of severity for individuals, organizations, and societies, at large (Qahri-Saremi & Turel, 2020).

Recent advancements in generative AI, such as large language models, their ability to generate human-like, convincing claims, and their innate tendency to “hallucinate” and generate fake images and videos (e.g., “deepfake” technology) are of particular concern. As these technologies are used for content generation on social media, their hard-to-detect hallucinations can further increase users’ likelihood of falling victim to misinformation (Roberts & Qahri-Saremi, 2023). Similarly, there are concerns about the dangerous behaviors mediated by digital technologies (e.g., Qahri-Saremi & Turel, 2023; Turel & Qahri-Saremi, 2016, 2024; Vaghefi et al., 2023). These concerns also raise questions about the social responsibility of technology giants (Vaezi, 2023) and the possible negative effects of these technologies on children. Case in point, the Australian government recently banned anyone under the age of 16 from social media platforms in response to increasing concerns about the dark sides of these technologies for children (Kim, 2024).

The fact that the digital and AI artifacts that we develop and the process we support may underlie such negative effects behooves us, as a research community, to pay closer attention to the “dark sides” of AI and digital technologies. This has been the main objective of this minitrack. Our goal in this minitrack is to facilitate a scholarly dialogue about not only the antecedents, development processes, and consequences of numerous phenomena related to the unexpected negative effects of

AI and digital technologies, but also the potential strategies, techniques, and design considerations for behavioral and technological interventions that can mitigate these concerns, therefore leading to “better technologies for a better world.”

To that end, for the last 9 years, this minitrack has welcomed theoretical and empirical papers examining the negative consequences of AI, digitalization, and IT use in general, at individual, organizational, and societal levels, and solutions for mitigating them. This endeavor has led to an insightful repertoire of academic research on various “dark sides” of digital and intelligent technologies. This year’s minitrack continues this valuable tradition.

2. This Year’s Mini-Track

In pursuance of this legacy, this year’s mini-track comprises four carefully selected and insightful papers that shed light on different aspects of the dark side of AI and digital technologies and set the stage for theoretically- and practically- valuable future research in this area.

In the first paper, “Swipe, Like, Repeat: Towards a Fit-based Theory of Implicit Motives in Social Media Addiction,” Jabagi, Ayoubi, and Croteau explain that the fit between users’ implicit motives and five social media platforms’ functionalities, namely sharing, relationships, communication, persona, and presence, increases the motivation to use the platform, which can put users at risk of social media addiction by continuously luring their attention to the platform.

In the second paper, “The Information Systems Perspective on Obsessive Technology Use: Insights and Research Gaps from a Literature Analysis,” Li, Cheung, and Lee apply social cognitive theory to provide an integrated account of the factors contributing to obsessive technology use. Via a literature analysis of 27 pertinent publications on obsessive technology use, they identify the research trends, focal themes, theoretical

underpinnings, methodological approaches, contextual settings, and demographic samples related to this dark side of technology use.

In the third paper, “The Dark Side of AI Anthropomorphism: A Case of Misplaced Trustworthiness in Service Provisions,” Hasan, Ojala, Quach, Thaichon, and Weaven adopt a sociotechnical perspective and employ a case study design to propose a framework that explains how anthropomorphic features in AI agents can lead to misplaced trustworthiness among consumers. Their findings advance the social sustainability of AI to promote responsible development and consumption patterns of AI technologies.

Finally, in the fourth paper, “Understanding the Human Side of False Information,” Park and Rahrovani propose a novel dialectical model to unpack and explain the subjective human experience of false information on social media and explain how this perspective can reshape the research on social media misinformation.

12. References

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