Privacy is Out of Office:

The Anatomy of Privacy Challenges in Digital Workplaces

Research in progress

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Introduction

The mainstream adoption of digital work practices, accelerated by the COVID-19 pandemic, caused a paradigm shift in how employees conduct their daily work (Malhotra, 2021). By working in virtual teams, the workforce can collaborate independently of physical, temporal, and organizational boundaries (Jensen & Stein, 2021). Thereby, the process of collaborating, communicating, and performing work remotely through digital solutions is closely tied to the generation and sharing of personal data (Zeng et al., 2010). In turn, the increasing workplace digitalization leads to the circulation of employee data, more organizational transparency of employees and, therefore, privacy concerns among the workforce (Teebken & Hess, 2021).

The effects of working digitally on employee privacy add stress to the relationship between employees and employers (Nord et al., 2006). In practice, this can impact employee attitudes toward novel technologies and their respective adoption of digital workplace solutions (Carpenter, 2016; Lee et al., 2017). For organizations, developing compassion in workplaces, in terms of making sense of employee concerns, is crucial to enable organizational resilience (Chatterjee et al., 2021). Therefore, understanding privacy challenges in digital workplaces is essential to facilitate the changing nature of work.

The investigation of privacy-related issues in digital workplaces is not a new topic. For instance, Lee et al. (2017) explore the effects of the nature and frequency of data collection on employee privacy concerns and their corresponding adoption of workplace practices. Nevertheless, it is important to understand the relationship between workplaces and privacy further. Rather than investigating single privacy challenges of workplaces that somehow lead to privacy concerns, our study delineates the characteristics of digital workplaces that threaten employee privacy. The research question of our study is the following: *How does digital work lead to employee privacy challenges?*

This study helps to reveal insights into digital workplace processes and mechanisms that can constrain privacy in digital work arrangements to facilitate successful workplace digitalization. We chose a qualitative research approach to address the explorative research question. Accordingly, we conducted semi-structured interviews with employees, which will be further analyzed in the next phase of the study. The goal is to arrive at a holistic framework for privacy challenges of digital workplaces that drive employee privacy concerns.

Conceptual Foundation

Digital solutions and underlying technologies form the pillars of digital workplaces and have become the basis for interaction and collaboration between stakeholders within organizations (Baptista et al., 2020). According to *socio-technical systems (STS) theory*, organizations constitute technological and social subsystems that affect each other (Alter, 2013). The STS theory is suitable for explaining the emergence of privacy concerns in workplaces because it accounts for organizational transformation as an interplay between technical and social components (Alter, 2013; Sarker et al., 2013).

From a technical perspective, collaborating, communicating, and conducting work remotely through digital solutions are closely related to the disclosure of employee data (Carpenter, 2016). As a result of the increasing pervasiveness of digital solutions in workplaces, data is collected, stored, processed, and disseminated to a previously unprecedented degree (Bhave et al., 2020). Over the years, the type of personal data collected has expanded. Among various traces resulting from the use of digital solutions, it includes demographics, finances, health, social media, and behavioral data related to daily activities at work (Leidner & Tona, 2021). From a social perspective, when working digitally, personal data is spread across many stakeholders within the social fabric of a workplace, including other colleagues, the employer, commercial entities, or even governments (Acquisti et al., 2015).

The spread of personal data leads to increased organizational transparency among individual employees and the emergence of privacy concerns (Gierlich-Joas et al., 2022). Information privacy concerns of employees are composed of various dimensions, including concerns about data collection, errors, secondary usage, improper access, lacking control and awareness, invasion of private life, or implications for employment relationships (Teebken & Hess, 2021). When employees have privacy concerns, this can lead to several negative outcomes, e.g., related to their willingness to share information, which can ultimately disrupt the successful implementation of digital workplaces (Carpenter, 2016).

Methodology

An understanding of how privacy concerns emerge in the workplace has been lacking. An approach that seeks to answer this research gap must account for limited previous research and support theory building. The grounded theory methodology (GTM) has frequently been chosen in emerging areas of information systems research to investigate technological change and corresponding socio-technical behavior (Wiesche et al., 2017). We believe it is important to base our study on employees' viewpoints to investigate how they perceive their digital workplaces and what they identify as potential threats to their privacy in the form of a mental roadmap.

Our qualitative sample consists of 66 interviewes. The interviews were conducted in the period between April 2020 and January 2021. Throughout the interviews, we first asked the interviewes about how they currently use digital solutions in their everyday work and how their working habits changed during remote work regulations. Grounding on their technology use, we asked them about their privacy concerns associated with using the

respective technologies in their digital workplace. On this basis, we asked employees why and how their privacy concerns emerge and what aspects of working digitally they regard as challenging to their privacy.

We followed the principle of theoretical sampling in selecting employees to be interviewed (Glaser & Strauss, 1967). To ensure a variation in perspectives, we varied our interview sample across three dimensions. First, employees who encountered different degrees of workplace digitalization were interviewed. Second, we interviewed employees with varying degrees of newness of digital work, measured by how the pandemic crisis changed their workplaces in terms of working digitally. Third, we included employees who either work from their private devices, are fully equipped with company devices, or work in a hybrid mode. The variation in the sample was important to cover heterogeneous views with diverging experiences in working digitally. Thereby, we did not focus on a specific workplace solution, as we aimed to arrive at a generalizable framework. For data analysis, we follow recommended GTM guidelines (Glaser, 1978; Wiesche et al., 2017).

First Results

When employees work remotely, videoconferencing solutions are employed to foster communication and collaboration across virtual teams. One first result of the interviews is the employees' concerns about revealing their videos during conferences. Their privacy concerns reach a point where they use stickers to cover the lenses of their cameras. Why is that the case? What characteristics of digital workplaces are perceived as privacy challenges? How do these challenges drive employee privacy concerns?

Within the first analysis of interview data, we noticed that workplace privacy challenges could be categorized into two components. One group of characteristics can be attributed to the use of digital solutions. Technical characteristics of digital workplaces will be based on how personal data runs through a data lifecycle, leading to employees being concerned about what happens to their personal data that is generated by working digitally. The other group of characteristics stems from working in virtual teams, which includes a broad range of stakeholders across which employee data is circulated, e.g., colleagues, the employer, or service providers. Working digitally can bring together different actors with diverse interests, leading to uncertainties about how these actors will manage and respect individual employees' privacy.

As a result of our study, we will create a comprehensive framework that displays the anatomy of privacy challenges in digital workplaces, including concrete technical and social privacy challenges at work, the interplay of distinct privacy challenges, and their relationship to employee privacy concerns. The conceptual focus of our study is displayed in Figure 1 and our study will be further developed in the next steps.

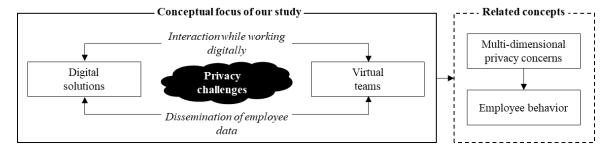


Figure 1. The emergence of privacy challenges when working digitally

Contribution and Outlook

Employees viewing workplace digitalization as a threat to their privacy can negatively influence their acceptance of new systems (Carpenter, 2016). How can organizations maximize the likelihood of employees accepting the introduction of novel technologies? To facilitate the digitalization of workplaces, there remains a need to identify in the first place why privacy challenges in workplaces emerge. Our study opens up the concept of privacy challenges in workplaces by highlighting what aspects of working digitally employees perceive as a threat to their privacy. In the next steps, the explorative study results will be related to STS theory (Alter, 2013), research on data lifecycle management (Pääkkönen & Pakkala, 2015), social fabrics in workplaces (Bhave et al., 2020), as well as workplace designs (Jensen & Stein, 2021).

Our study's results open avenues for research by highlighting the emergence of privacy challenges in workplaces. Future studies can use the exploratory results of this study to investigate how specific characteristics of working digitally affect privacy concerns instead of treating privacy challenges in workplaces in an undifferentiated way. Organizations can leverage this understanding to mitigate potential adverse effects on employees. With an improved understanding of privacy in workplaces, organizations acting as employers or service providers can implement mechanisms, policies, and tools targeting specific privacy challenges, thus accelerating successful workplace digitalization.

References

- Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and Human Behavior in the Age of Information. *Science*, *347*(6221), 509-514.
- Alter, S. (2013). Work System Theory: Overview of Core Concepts, Extensions, and Challenges for the Future. *Journal of the Association for Information Systems*, 14(2), 72-121.
- Baptista, J., Stein, M.-K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2020). Digital Work and Organisational Transformation: Emergent Digital/Human Work Configurations in Modern Organisations. *Journal of Strategic Information Systems*, 29(1), 101618.
- Bhave, D. P., Theo, L. H., & Dalal, R. S. (2020). Privacy at Work: A Review and a Research Agenda for a Contested Terrain. *Journal of Management*, 46(1), 127-164.

- Carpenter, D. M., Alexander; Hicks, Chelsea; Maasberg, Michele. (2016). Privacy and Biometrics: An Empirical Examination of Employee Concerns. *Information Systems Frontiers*, 20(1), 91-110.
- Chatterjee, S., Chakraborty, S., Fulk, H. K., & Sarker, S. (2021). Building a Compassionate Workplace Using Information Technology: Considerations for Information Systems Research. *International Journal of Information Management*, *56*, 102261.
- Gierlich-Joas, M., Teebken, M. A., & Hess, T. (2022). A Synthesized Perspective on Privacy and Transparency in the Digital Workplace. Proceedings of the 54th Hawaii International Conference on System Sciences (HICSS), A Virtual AIS Conference.
- Glaser, B. G. (1978). Theoretical Sensitivity: Advances in the Methodology of Grounded Theory. Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine de Gruyter.
- Jensen, T. B., & Stein, M.-K. (2021). Designing a Digital Workplace: Introducing Complementary Smart Work Elements. *Journal of Financial Transformation*, 52(1), 42-53.
- Lee, J., Warkentin, M., Crossler, R. E., & Otondo, R. F. (2017). Implications of Monitoring Mechanisms on Bring Your Own Device Adoption. *Journal of Computer Information Systems*, *57*(4), 309-318.
- Leidner, D. E., & Tona, O. (2021). The Care Theory of Dignity Amid Personal Data Digitalization. *MIS Quarterly*, 45(1), 343-370.
- Malhotra, A. (2021). The Postpandemic Future of Work. *Journal of Management*, 47(5), 1091-1102.
- Nord, G. D., McCubbins, T. F., & Horn Nord, J. (2006). E-Monitoring in the Workplace: Privacy, Legislation, and Surveillance Software. *Communications of the ACM*, 49(8), 73-77.
- Pääkkönen, P., & Pakkala, D. (2015). Reference Architecture and Classification of Technologies, Products and Services for Big Data Systems. *Big Data Research*, 2(4), 166-186.
- Sarker, S., Chatterjee, S., & Xiao, X. (2013). How "Sociotechnical" Is Our Is Research? An Assessment and Possible Ways Forward. Proceedings of the 34th International Conference on Information Systems (ICIS), Milan, Italy.
- Teebken, M., & Hess, T. (2021). Privacy in a Digitized Workplace: Towards an Understanding of Employee Privacy Concerns. Proceedings of the 54th Hawaii International Conference on System Sciences (HICSS), A Virtual AIS Conference.
- Wiesche, M., Jurisch, M. C., Yetton, P. W., & Krcmar, H. (2017). Grounded Theory Methodology in Information Systems Research. *MIS Quarterly*, 41(3), 685-701.
- Zeng, D., Chen, H., Lusch, R., & Li, S.-H. (2010). Social Media Analytics and Intelligence. *IEEE Intelligent Systems*, 25(6), 13-16.