Chair of Explainable AI-Based Business Information Systems
Prof. Dr. Ulrich Gnewuch

Master Thesis: Generative AI Copilots in the Workplace

Supervisor: Prof. Dr. Ulrich Gnewuch (ulrich.gnewuch@uni-passau.de)
Start date: as soon as possible

Motivation and Goals

Generative artificial intelligence (AI) copilots, such as Microsoft Copilot and SAP Joule, are generating significant hype due to their potential to increase employee productivity. Although software vendors highlight the substantial benefits of their copilots (Jaffe et al. 2024), recent industry reports suggest that realizing these productivity gains is more difficult than expected (Simkute et al. 2024). Key barriers include individual factors (e.g., employees' lack of skills to effectively interact with a copilot), technical challenges (e.g., the black-box nature of LLM technology), and organizational constraints (e.g., copilot's limited access to relevant information due to access control policies).

The goal of this master thesis is to provide an in-depth understanding of the barriers to the effective use of generative AI copilots within organizations. Adopting an exploratory approach, semi-structured interviews will conducted with users from companies that have recently rolled out Microsoft Copilot or other copilot tools to their employees. The interviews will be analyzed to identify and categorize the key barriers, compare them to those faced in the implementation of more traditional IT systems, and ultimately provide actionable recommendations for organizations to overcome these barriers and fully realize the benefits of generative AI copilots.

Required Skills

- Strong interest in (generative) AI and its implications for the future of work
- Good English language skills
- Preferably, experience in conducting qualitative research (e.g., interviews)

Starting Literature (Topic)

Jaffe, S., Shah, N. P., Butler, J., Farach, A., Cambon, A., Hecht, B., Schwarz, M., & Teevan, J. (2024). Generative AI in Real-World Workplaces (MSR-TR-2024-29). Microsoft. https://www.microsoft.com/en-us/research/publication/generative-ai-in-real-world-workplaces/

Simkute, A., Tankelevitch, L., Kewenig, V., Scott, A. E., Sellen, A., & Rintel, S. (2024). Ironies of Generative AI: Understanding and mitigating productivity loss in human-AI interactions. http://arxiv.org/abs/2402.11364

Anthony, C., Bechky, B. A., & Fayard, A.-L. (2023). "Collaborating" with AI: Taking a System View to Explore the Future of Work. *Organization Science*, 34(5), 1672–1694. https://doi.org/10.1287/orsc.2022.1651

Starting Literature (Method)

Mayring, P. (2021). Qualitative Content Analysis: A Step-by-Step Guide. SAGE Publications Ltd.

Myers, M. D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization*, 17(1), 2–26.