Frankfurt University of Applied Sciences Prof. Dr. Nils Urbach Research Lab for Digital Innovation & Transformation (ditlab)



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Bachelor's / Master's thesis

Artificial Intelligence meets Digital Innovation

With Artificial Intelligence (AI) as our ally, we can unlock the true potential of data, harnessing its power to gain invaluable insights and drive informed decision-making. By leveraging advanced algorithms and machine learning techniques, we can revolutionize the way we generate ideas, analyze information, and predict trends. This potential can be used to enhance and streamline the digital innovation (DI) process.

"To date, however, the potential of AI for DI processes remains poorly understood and needs to be further investigated" (Huber et al. 2021). Possibilities for AI to be applied for DI are for example idea generation and discovery, data analysis and insights generation as well as decision making. However, AI itself is not a grant for success. Customization and adaptation of AI techniques to address specific innovation challenges are crucial for successful implementation. In addition, specific employee skills are needed for targeted application. Potential research questions in this context are:

- How can we use generative Al for DI?
- What does the skillset of DI managers of the future look like?

Potential results of this thesis range from a conceptualized generative AI-powered design sprint process to a framework of the skills of future DI managers. The focus of the work will be defined in an initial meeting with the supervisor. This topic can be chosen as a Bachelor's or Master's thesis. The thesis can either be written in English or German, although English is strongly recommended.

Empfohlene Einstiegsliteratur:

- Bahoo, S., Cucculelli, M., & Qamar, D. (2023). Artificial intelligence and corporate innovation: A review and research agenda. Technological Forecasting and Social Change, 188, 122264.
- Huber, R. X. R., Niesel, O., Oberländer, A. M., Stahl, B., & Übelhör, J. (2021). Intelligent Innovation Processes-the potential of AI for Digital Innovation Processes. In *PACIS* (p. 13).

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