

Bachelor- or Masterthesis: „How Large Language Models Facilitate Human Creativity“

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Start date: as soon as possible (Application deadline: 15.03.2025)

Motivation and Aim of the Thesis

The development of creative ideas is a key component of problem solving, and digital technologies play an increasingly important role in this process. With the advent of Large Language Models (LLMs) like ChatGPT, entirely new opportunities arise to support creative processes, which may fundamentally differ from traditional technologies. Gaining a deeper understanding of these differences is crucial to harness the potential of LLMs effectively and to assess their impact on creativity.

The goal of this thesis is to explore how the use of Large Language Models (LLMs) influences the development of creative ideas and how this differs from the use of other technologies. To achieve this goal, the first step is to conduct a thorough review of existing literature to establish the conceptual and theoretical foundations related to creativity, technology, and LLMs. Building on these foundations, the student should develop arguments to explain how and why the use of LLMs differs from other technologies in fostering creativity and what implications this has for the process of generating creative ideas. The aim is to provide a comprehensive understanding of the unique role LLMs play in creativity.

Requirements

- Strong interest in the topic
- Strong analytic and conceptual skillset
- Structured way of working

References

- Althuizen, N., & Reichel, A. (2016). The effects of IT-enabled cognitive stimulation tools on creative problem solving: A dual pathway to creativity. *Journal of Management Information Systems*, 33(1), 11-44.
- Nickerson, J. A., & Zenger, T. R. (2004). A knowledge-based theory of the firm—The problem-solving perspective. *Organization Science*, 15(6), 617-632.
- Raisch, S., & Fomina, K. (2024). Combining human and artificial intelligence: Hybrid problem-solving in organizations. *Academy of Management Review*, (forthcoming).