Master's Thesis (M.Sc.)

Understanding Human-Centred Use of Generative AI in Field Operations: An Ethnographic Study at NetzeBW

Start Date: As soon as possible

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Background

This master's thesis is set within the context of *Project MenschKI!*, a KIT-initiated, BMAS-funded research initiative studying how GenAI affects employee productivity and well-being in everyday work settings. While GenAI is often evaluated in terms of efficiency gains, this project focuses explicitly on human-centred dimensions – how such tools can enhance well-being, work satisfaction, confidence, and emotional balance, beyond mere productivity. In collaboration with industrial partners like NetzeBW, the wider project develops practical, employee-empowering solutions (e.g. adaptive learning support and personalized interaction) for embedding GenAI responsibly and sustainably into work routines .

Building on this, your thesis will conduct a qualitative field study to observe, capture, and reflect on actual use of a GenAI support tool by NetzeBW field technicians—emphasizing not only barriers and challenges, but especially positive, well-being-oriented outcomes as they interact with AI in physically demanding, real-world tasks.

Objectives

The goal of this thesis is to conduct an in-depth qualitative study of how field technicians at NetzeBW use a GenAI tool during their daily work. The thesis involves:

- Conducting ethnographic shadowing / participant observation of technicians in the Stuttgart / Swabian Alb region.
- Identifying patterns of tool usage, challenges, and facilitating factors in real-world settings.
- Conducting retrospective interviews to validate and deepen the field observations.
- Analysing the collected data to develop a grounded understanding of the role GenAI plays in supporting fieldwork.
- Deriving implications for human-centred design and integration of AI in physical work environments.

Requirements

- Very good skills in German language (observations and interviews will be conducted in German).
- Willingness and ability to travel independently within the Stuttgart / Swabian Alb region.
- Interest in qualitative research methods and human–AI interaction.
- Prior experience with ethnographic research, interviews, or qualitative coding is helpful but not required.
- The work can be written in English or German.

If you are interested in this topic or have further questions, please contact us with a short letter of motivation and your current transcript of records.