

# Introduction to the Minitrack on AI-based Decision Support for Organizational Processes

Tavanapour, Navid; Gierlich-Joas, Maren

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## AI-Based Decision Support for Organizational Processes

Navid Tavanapour  
University of Hamburg  
[navid.tavanapour@uni-hamburg.de](mailto:navid.tavanapour@uni-hamburg.de)

Maren Gierlich-Joas  
Copenhagen Business School  
[mg.digi@cbs.dk](mailto:mg.digi@cbs.dk)

### 1. Introduction

The rise and relevance of artificial intelligence (AI) for organizational processes created new challenges and chances for more automated, efficient, and innovative knowledge transformation to support or improve decision-making. The involvement of AI within organizational processes leads to the massive production of data, which raises the complexity of decision-making. AI can be trained and enabled to make certain decisions if defined criteria are met. In other cases, human decision-makers are still involved, and face the challenge to trace, process, and analyze data to predict and calculate various directions of different possible decisions. Hereby, decision support systems provide support for human decision-makers. With the technological advances of AI, the functionalities of decision-support systems have extended drastically, providing potentials and risks.

This minitrack aims to reveal possible AI applications to support decision-making, for example, exploring advances, integration, or augmentation of processes with AI to guide organizational decision-making. This raises the following research questions that may also provide orientation and outline the topics and relevant research in this minitrack:

- What are theoretical foundations and design methodologies for hybrid-intelligent decision-making (working with an AI towards a decision)?
- How to design and build automated decision-making processes (e.g. AI integration for process mining, etc.)
- How to implement tools for AI-enabled decision-making and facilitate their use?
- How does AI-enabled decision-making change the nature of work and the role of managers?

- How does AI impact HR processes, e.g. decision-making in the recruiting process?
- How does AI facilitate organizational innovation processes and the management of innovation?
- To which extent can AI-enabled decision support systems shape decisions leading toward sustainable organizations?

We have one accepted paper entitled “*Understanding Cognition in the Development of Artificial Intelligence-based Systems: An Exploration of Cognitive Fit and Supporting Mechanisms*” in this minitrack which provides an excellent starting point for further research in the field. The authors investigate how data science teams can enhance the cognitive fit between users and AI systems. Conducting an exploratory case study with 24 interviews, the authors derive cognitive dissonances faced by users, such as lack of knowledge and understanding of the AI-based system, incompatibility with existing tasks and processes, lack of task strategies applying AI, and inability to explain outputs and detect errors. Furthermore, they outline support mechanisms to address these challenges which can be grouped into mechanisms to complement knowledge and co-create AI-solutions. The paper contributes to understanding the role of cognition in AI-based system development projects as a socio- and psychological phenomena.