

Overcoming heuristic biases using Explainable AI

Motivation

Our decision-making often results in poor and irrational choices due to cognitive biases. Being aware of these biases, research has put forth impressive AI systems to aid human decision-making. However, due their black-box nature, AI systems often hide the patterns found in data from users, which limits their potential for decision support. Explainable AI can expose such patterns to decision-makers.

Task

The task includes the design and implementation (optional: evaluation) of an online experiment that examines whether a specific cognitive bias (e.g., anchoring bias) can be overcome with explainable AI supported decision-making.

Expected results

Expected is a design proposal and the implementation of an online experiment. If time allows, the student can conduct and evaluate the experiment within a small user study.

German Title

- Überwindung von kognitiven Verzerrungen mit Hilfe von erklärbarer KI

Level: Master thesis

Methodology

- Online experiment
- Some minor statistics

Special prerequisites

- Solid skills in programming and machine learning

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