Colloquium
Cognitive Systems

Dr. Falk Lieder,
MPI Tubingen

Rationality Enhancement: Towards theories and tools for helping people become more effective

Human judgment and decision-making appear to be riddled with numerous systematic errors. Previous attempts to attenuate these so-called cognitive biases by educating people about them or schooling them in the laws of logic, probability theory, and expected utility theory have had limited success. In this talk, I will outline an alternative approach to improving human decision-making that grew out of rethinking what it means to be rational. In the first part of my talk, I will illustrate that making Herbert Simon's notion of bounded rationality mathematically precise allows us to derive optimal decision strategies from first principles. In the second part of my talk, I will illustrate how such advances can be leveraged to improve human decision-making. Concretely, I will present an intelligent tutor that can discover optimal planning strategies and helps people to internalize those strategies by providing metacognitive feedback. Finally, in the third part of my talk, I will present a complementary approach that combines artificial intelligence with gamification to help people overcome procrastination and become more productive.

23.05.2019
5-7 ct
Room 47.0.501
(Teaching block WWP)
Universität West
Albert-Einstein-Allee 47
89081 Ulm

Dr. Falk Lieder is a Max Planck Research Group Leader at the MPI for Intelligent Systems here in Tübingen. His newly established Rationality Enhancement Group strives to lay the cognitive and technological foundations for helping people become more effective. He completed his Ph.D. in Tom Griffiths's Computational Cognitive Science Lab at the University of California, Berkeley. Prior to this, he worked as a research assistant in Klaas Stephan's Translational Neuromodeling Unit, received a masters degree in Neural Systems and Computation from ETH Zurich, and completed two simultaneous bachelor's degrees in Cognitive Science and Mathematics/Computer Science at the University of Osnabrück.

Local host: Prof. Dr. Dr. Daniel Braun   Contact: Prof. Dr. Marc Ernst | marc.ernst@uni-ulm.de