DiSCourse Seminar

The Digital Science Center and the Department of Computer Science would like to invite you to the following guest lecture:

Michael Färber
Karlsruhe Institute of Technology (KIT)

Knowledge Graph-based Recommendation for AI-Powered Research

The high publication rate in science and the resulting information overload for researchers makes research increasingly haphazard and unmanageable, while it brings at the same time the great potential to mine publications for AI-assisted research. However, the scientific key information (e.g., methods, datasets) is hidden in the unstructured full-texts of publications, making an explicit modeling, an interlinking to other databases, as well as a recommendation of this information challenging. Existing scholarly information systems typically allow users to search for publications given keywords or to ask for publications as recommendations. In both cases, the systems only provide the publications' full-texts, requiring the users to skim through a vast amount of publications. In addition, state-of-the-art recommender systems are based on opaque deep neural networks, which hinders their applicability in science as a field with a high need for transparency. In this talk, I present how knowledge graphs can be used for solving these issues, paving the way toward AI-assisted research that allows researchers to obtain comprehensive overviews and hidden links between research topics.

About the speaker

Dr.-Ing. Michael Färber is a deputy professor at KIT, where he heads the Web Science research group. His research interests are natural language processing, machine learning, and knowledge representation. He is the author of more than 75 peer-reviewed scientific publications. Currently he is completing a research visit at the University of Innsbruck as part of the LFUI Guest Professorship which is supported by the Circle of Supporters (Förderkreis 1669) and International Services.

Date and Time: Friday, 23 September 2022, 12:00 (CEST)

Please note: This presentation will be given **online** in Big Blue Button. Participants do not need to register.