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Social Cognition and Decision Sciences

<https://uni-tuebingen.de/en/24022>

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DAAD RISE Germany 2024 – Research Internship in Human-Computer Interaction at the Intersection of Behavioral and Computer Science

Dear research enthusiast,

Are you keen on research at the intersection of behavioral and computer science? That is fantastic, because the combination of the two is our passion too! In the summer of 2024, Florian will be a first-year doctoral researcher and Tobias a second-year postdoctoral researcher in the Social Cognition and Decision Sciences working group at the University of Tübingen, Germany. As a team, both of us will be your collaborators and supervisors during your RISE internship in our department. The starting date of the internship is negotiable and a purely virtual format is possible.

The project you are applying for has an interdisciplinary focus on human judgment and decision-making and thus lies at the intersection of artificial intelligence (AI) and machine learning, as well as core behavioral science disciplines such as (social/cognitive) psychology and economics. We are concerned with a specific and influential phenomenon in human-computer interaction (HCI), which has been termed “algorithm aversion” (Dietvorst et al., 2015). While this name somewhat anticipates the typical findings in this research area, namely that users are often less enthusiastic about algorithms than human agents when given the choice, recent research shows that under more general conditions, the opposite is also often true (Logg et al., 2019). Thus, our goal in this project is to elaborate on the conditions under which one or the other is more likely to be observed, that is, when and why users might prefer algorithmic over human input, or vice versa. For instance, personalized AI is ubiquitous and highly valued by its users (e.g., movie recommendations on Netflix, product recommendations on Amazon, or simply Google search results), although it also carries some serious risks (e.g., preference homogenization, overtrust). What are the technical, behavioral, and societal factors of the algorithms that these companies develop, deploy, and maintain that make their products so popular, influential, and economically successful?

To answer our research questions, we use observational data and conduct behavioral experiments online and in the lab. Depending on your interests and skills, you will have the opportunity to carry out parts of the research project autonomously. If you are more interested in the computational aspects of the project, you will deal more with the technical factors of algorithmic programming, personalization of AI, etc. If you are more interested in the behavioral side of the discipline, you will contribute more to designing and programming of behavioral experiments, answering pre-registered research questions about the tension between algorithm aversion and algorithm appreciation in HCI, and collecting and analyzing data using sophisticated statistical methods and software packages. In all cases, you will be actively involved in reporting our findings in high-impact, peer-reviewed journals. Moreover, you will receive dedicated support at every stage of your internship from Prof.

Dr. Mandy Hüttner, the head of our working group, other junior and senior colleagues involved in our project, and of course from us.

During your stay, you will be a regular member of the Social Cognition and Decision Sciences working group. We are an ambitious and open-minded team of young researchers and scholars at the University of Tübingen. Weekly colloquia and lab meetings will give you the opportunity to get a taste of other research projects being conducted in our group. Check [our website](#) for more details!

The University of Tübingen is one of the leading universities in Germany. Innovative, interdisciplinary, and international research has been conducted here for more than 500 years. The university is spread across the medieval old town of Tübingen, a small city located in the middle of the Swabian Alb in southern Germany. Tübingen is also close to the Black Forest, which borders France and is ideal for hiking and mountain biking, and Germany's largest lake, Lake Constance, which borders Austria and Switzerland. Accordingly, the region offers endless opportunities to spend your free time in a cultural, adventurous, relaxing or whatever way you prefer.

Are you convinced? Then hurry up and apply for a DAAD RISE Germany 2024 summer research internship in the Social Cognition and Decision Sciences working group at the University of Tübingen! Please do not hesitate to reach out if you have any questions.

Yours sincerely,
Florian Scholten and Tobias Rebholz