



Universität Potsdam

Job Announcement

Young, modern, and research oriented... the University of Potsdam has firmly established itself within the scientific landscape since its founding in 1991. Nationally and internationally renowned scientists teach and perform research here at Brandenburg's largest university. The University of Potsdam is successful in acquiring third-party funds, delivers outstanding performance in technology and knowledge transfer, and has a very service-oriented administration. With about 21,000 students studying at three campuses – Am Neuen Palais, Griebnitzsee and Golm – the University of Potsdam is a prominent economic factor and engine of development for the region. The University of Potsdam has a total of over 3,000 faculty and staff members and is located in one of Germany's most scenic areas.

The University of Potsdam, Faculty of Human Sciences, Junior Professorship School Pedagogy, with the focus school and teaching development Schulpädagogik with the project “From understanding learners’ adaptive motivation and emotion to designing social learning companions” invites applications for the following position subject to funding commitment:

Academic Staff Member Requisition No.: 307/2020

The position is available from April 01, 2020. The salary is determined by the collective bargaining agreement for public employees in Germany (TV-L 13 Ost). The position is for 40 hours per week (100 %). This is a temporary position limited to a term of 2,5 years/31 months in accordance with Section 2 subsection 1 of the Academic Fixed-Term Contract Law (WissZeitVG).

Overall information about the research project:

Our research team (Phd, Postdoc, PIs) aims to develop individualized and adaptive learning settings using integrated game- and agent-based Intelligent Tutoring Systems (ITS) and computational models in interdisciplinary collaboration between computational sciences and educational research. We aim to optimize scaffolding in social learning situations by using new technologies such as ITS and robotic learning companions. Researchers from analytic (educational research: Rebecca Lazarides) and synthetic disciplines (adaptive systems / robotics: Verena Hafner, educational technology / computer science: Niels Pinkwart) collaborate on this project. Collaborations with other projects that focus on social learning are intended.

The three objectives of our project are:

- Examine how novel user modeling approaches and feedback strategies in ITSs incorporating virtual agents can enhance positive emotions and motivation (self-regulation, goal orientations) and reduce negative emotions in social learning situations and can thereby be used to impede inequalities in education.
- Explore the (moderating and mediating) processes that underlie the relations between pedagogical agents' 'behaviors' and learners' performance by investigating psycho-

logical factors that strengthen or reduce the effects of ITS on learners' motivation and emotion.

- Investigate learning processes using robotic learning companions that keep an updated model/simulation of the learner and their current knowledge, motivational and emotional state and acts accordingly.

Description of the (post)doctoral project:

The applicant will examine the state- and trait emotions and motivations of learners in adaptive learning settings using Intelligent Tutoring Systems (ITS). To assess state and trait motivation and emotions using experience sampling methods, the applicant will develop smartphone-based questionnaires and examine the development of motivation and emotion in different experimental conditions as well as the identification of psychological processes that explain the effects of ITS and robotic learning companions on emotions and motivation. Against this backdrop, this project further focuses on how ITS and robotic learning can help to overcome educational inequalities (i.e. in relation to gender or ability) in motivation and emotion by fostering individualized learning processes that provide materials and tasks to learners that match their interest, level of emotion and motivation as well as their level of pre-knowledge and achievement.

The applicant will scientifically coordinate the research process of the planned project.

Prerequisites:

Applicants must hold a Diploma/Master's degree in Psychology or related sciences and should have proven skills/background in following topics:

- Experience with research in motivational-affective processes in learning, adaptive learning with new technologies, Intelligent Tutor Systems or Human-Robot Interaction
- Experience with complex statistical analysis including experience sampling approaches
- Skills in using statistical software (e.g. R, Mplus)
- Experience in experimental studies in the context of educational psychology
- Good publication record
- Strong organizational skills

Under the laws of the federal state of Brandenburg, employees under this contract are permitted to dedicate at least 33% of their contract time for their scientific qualification.

The University of Potsdam aims to increase the proportion of women in research and teaching and therefore invites qualified applicants to apply. The University of Potsdam values the diversity of its members and pursues the goals of equal opportunities regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, sexual orientation or identity. In the case of equal suitability, women within the meaning of Section 7 (4) BbgHG and severely disabled people will be given preferential consideration. Applications from abroad and from persons with a migration background are expressly welcome.

Applicants should send their application materials, by March 8th, 2020 at the latest, either by mail to the University of Potsdam, JProf. F. Schulpädagogik, Karl-Liebknecht-Straße 24-25, 14476 Potsdam, Germany, or via email to kraegerm@uni-potsdam.de with the subject line, "Job Title – requisition number."

In order to return your application documents, we request that you include a self-addressed stamped envelope.

Potsdam, February 6, 2020