Postdoctoral Position - E 13 TVöD Bund, 39 hours/week

Reference number: SClol-42/19 (starting not later than from October 1, 2020 / for 3 years / closing date for applications November 29, 2019)

Working field: Project: The collective dynamics underlying personal and social information integration

A crucial component for achieving collective intelligence, being it in human, animal or robotic groups, is the accurate integration of personal and social information. We, however, know little how individuals in groups dynamically exchange information and update their decisions over time. Here we will investigate this process, using human groups as an analytical example. On the one hand, we will challenge human groups with visual search tasks in which individuals dynamically exchange information over time. On the other hand, we will use agent-based modeling to investigate the generalities of the collective information processing, the results of which will be fed back into the analytical system for testing. Continuously updating these algorithms, the end product will be a set of generic algorithms for studying and harnessing collective intelligence.

This position is embedded in the DFG-funded Cluster of Excellence "Science of Intelligence".

What are the principles of intelligence, shared by all forms of intelligence, no matter whether artificial or biological, whether robot, computer program, human, or animal? And how can we apply these principles to create intelligent technology? Answering these questions - in an ethically responsible way - is the central scientific objective of the new Cluster of Excellence Science of Intelligence (https://www.scioi.de), where researchers from a large number of analytic and synthetic disciplines - artificial intelligence, machine learning, control, robotics, computer vision, behavioral biology, psychology, educational science, neuroscience, and philosophy - join forces to create a multi-disciplinary research program across universities and research institutes in Berlin. Interdisciplinary research projects have been defined (https://www.scienceofintelligence.de/research/projects), which
combine analytic and synthetic research and which address key aspects of individual, social, and collective intelligence.

Requirements:

Applicants must hold a PhD (or be close to completion) in Psychology, Biology or related natural sciences and should have proven skills/background in the following topics:

- conducting human collective behavior experiments
- statistical data analysis of interdependent data (mixed model approaches, conventional statistics, Bayesian statistics)
- programming skills (for example in MATLAB, Python, R)
- strong preference for candidate with experience in drift diffusion modelling, genetic algorithms and/or models of collective behavior
- a strong record of publication, reflecting the career stage, in internationally leading journals
- experience in working in collaborative research activities including multidisciplinary teams

This position requires participation in research colloquia, lecture series and workshops, as well as an active engagement in the Cluster’s research activities.

Application procedure:

Candidates should upload their application preferably via the portal http://jobs.scienceofintelligence.de in order to receive full consideration.
Applications should include: motivation letter, curriculum vitae, transcripts of records (for both BSc and MSc), copies of degree certificates (BSc, MSc, PhD if applicable), abstracts of Bachelor-, Master and (if applicable) PhD-thesis, list of publications and one selected manuscript (if applicable), two names of qualified persons who are willing to provide references, and any documents candidates feel may help us assess their competence.

A part-time employment may be possible.

The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals.

A written application with the reference number and the above-mentioned documents could be sent to Technische Universität Berlin - Der Präsident - Fakultät IV, Cluster SCIoL, Sekr. SCIoL, Marchstr. 23, 10587 Berlin. We are kindly asking you to submit your application without a photo.

For more information about the position, please contact Dr. Ralf Kurvers (kurvers@mpib-berlin.mpg.de).

Signed Dr. Brigitte Merz