The "Human and Machine Cognition" lab led by Dr. Charley M. Wu in collaboration with the "Tools and Culture among Early Hominins" lab and the ERC STONECULT project led Dr. Claudio Tennie invite applications for a

Postdoc Research Fellow (m/f/d; E13 TV-L, 100%, 2 years)

on the topic of **Cumulative Culture in AI**. Our aim is to better understand the human capacity for cumulative culture by developing AI that can distill and transmit social information in a human-like manner. Key ingredients of human social learning we want to model in AI systems include: representational exchange between social and individual learning systems, compositionality of individual knowledge with social information, and the inference of causal structure from partial/failed solutions. Just as the "cultural explosion" launched the success of the human species, a similar capacity for cultural learning has the potential to unlock more robust, interpretable, and compositional forms of AI. Note that the exact topic and subtopics are flexible and will depend on the interests of the candidate. For inquiries, please contact: charley.wu[at]uni-tuebingen[dot]de

About the position:
This interdisciplinary collaboration brings together a unique fusion of expertise, combining innovations in the computational modeling of human behavior and social learning (Dr. Charley Wu), with ground-breaking comparative research into the emergence of culture in humans, hominins and great apes (Dr. Claudio Tennie).

The ideal candidate should have a strong computational and mathematical background, for instance, in machine learning, reinforcement learning, multi-agent simulations, cognitive modeling, or a related area. This position is particularly suited for promising researchers recently finished or about to finish their PhD in a relevant discipline, such as cognitive science, computer science, psychology, computational neuroscience, statistics, or biology. A PhD must be completed before the start of the position.

Candidates should have worked in or have a strong passion for studying cultural evolution, social learning, and cognitive science, with a general interest and capacity for interdisciplinary research. Please indicate in your application if you have prior experience with conducting human experiments, computational modeling, and/or machine learning, which are beneficial but not required. Skills in programming languages (e.g., Python, R, Matlab, Javascript, Java, etc.), developing online or VR experiments, writing (in English), and the ability to independently manage a project (of any type) should also be mentioned.

What we offer:
The position is funded by the Tübingen AI Center, which is associated with University of Tübingen and is the highest ranked academic institution in artificial intelligence in the European Union. In addition, the position is also embedded in the Machine Learning excellence cluster and the Department of Early Prehistory and Quaternary Ecology. There are no formal teaching duties, allowing full flexibility for conducting research. There will be opportunities to mentor and work with PhD students working on related topics.

About Tübingen:
Tübingen is a scenic university town on the Neckar river in South-Western Germany. The quality of life is exceptionally high and the atmosphere is diverse, inclusive, and most locals speak English. Tübingen offers excellent research opportunities due to the University, four Max Planck institutes, the University Hospital, and Europe's largest AI research consortium. You can find out more about Tübingen here: https://www.tuebingen.de/en/

How to apply:
Please send a cover letter, a research statement describing your relevant interests (max 1 page), your CV, the names and email addresses of 2-3 referees, and unofficial copies of your University degrees *as a single PDF* to Charley Wu (charley.wu[at]uni-tuebingen[dot]de). If not included in your CV, please also include links to publicly available code examples (e.g., github, OSF, etc…). The university seeks to raise the number of women in research and teaching and therefore urges qualified women academics to apply for these positions. Equally qualified applicants with disabilities will be given preference. The employment will be carried out by the central administration of the University of Tübingen. Please submit your application by **August 15th, 2022**.