

# FAIR – Hybrid human-AI systems

## Background

The next wave in AI evolution posits that future AI systems will be able to interact and collaborate with humans, to perceive and act within evolving contexts, all this while being aware of their own limitations, capable of adapting to new situations and of interacting appropriately in complex social settings. All these goals fall under the umbrella of human-centric AI.

## Topic description

Hybrid human-AI systems are one of the most interesting trend in the evolution of AI. In such systems AI agents and humans collaborate towards a common goal, they share responsibility of decisions, exploit each other strengths. Examples are many, including, e.g., advanced hybrid driving systems, manufacturing environments in presence of robots. Generalizing, we can envision even more complex scenarios, characterised by a complex environment of humans and AI agents with more articulated collaboration patterns than what we are used today.

We are looking for a researcher working on mixed human-AI systems, whereby it would be possible to automatically decide how to shift responsibilities between humans and AI agents, possibly via higher-level AI which predicts at each point in time the best option for a specific task. Coupled with collaboration of a possibly large set of such actors (AI agents and humans) this would result in complex behaviours to be characterised at large scales. The activities will involve a mix of modelling, systems/algorithms design, prototype development, and performance evaluation via experiments, analysis, and simulation.

## Type of prospect positions

We plan to open positions at the level of Researcher on this topic.

## Funding and partnerships

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## Candidate profile

Ideal candidates should have or about to obtain a PhD in Computer Science, Computer Engineering, Mathematics, Physics, or closely related disciplines, and a proven track record of excellent scientific publications. Preferably, the PhD should be in one of the relevant research areas: Artificial Intelligence, BigData analytics, distributed systems, Probability & Statistics.

## Contacts



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