

Scientific Challenges, Practical Methodologies and Policy Perspectives for Trustworthy Artificial Intelligence

Keynote

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Abstract

Artificial intelligence (AI) systems, when applied in practical applications, have an impact on human behaviour. On the one hand, AI provides cognitive assistance to humans, such as helping us to interpret data more efficiently and discover hidden knowledge in large data resources. On the other hand, these AI systems also affect human decision making and cognitive and socio-emotional development. In this seminar I will provide an overview of the research carried out at HUMAINT (Human Behaviour and Machine Intelligence), an interdisciplinary research project carried out at the European Commission's Joint Research Centre. The goal of the project is to study the impact of AI on human behaviour, and aims to provide evidence-based scientific support to the European policymaking process in this field. I will present our policy context, project approach and outcomes, focusing on four core applications (facial processing, automated driving, child-AI interaction and music recommendation) and connected to practical methodologies for fairness, diversity, transparency and human oversight.

Speaker biography

Emilia Gómez holds BSc and MSc degrees in Electrical Engineering and a PhD degree in Computer Science. She is a principal investigator on Human and Machine Intelligence (HUMAINT) at the Joint Research Centre (European Commission). She is also a guest professor at the Music Technology Group, Universitat Pompeu Fabra, Barcelona. Her research is grounded in the Music Information Retrieval field, where she has developed data-driven technologies to support music listening experiences, being the first female president of ISMIR. Starting from the music domain, she studies the impact of artificial intelligence on human decision making, cognitive and socio-emotional development. Her research interests include fairness and transparency in algorithmic systems, the impact of artificial intelligence on jobs, and the how these systems affect children. She is currently a member of the Spanish National Council for AI and the OECD One AI expert group.

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