Talk title: Creative Cognitive Systems

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Abstract:

Computational creativity focuses on implementing and evaluating artificial creative systems, while human creative cognition approaches center on working to understand the processes and types of representations humans use when being creative or creatively problem solving. An interdisciplinary cognitive science approach is however possible: building cognitively inspired systems which inform new AI approaches, while also serving as future tools for elucidating cognitive processes and future cognitive models.

This talk will present a unified theoretical framework for creative cognitive problem solving, together with the application of this approach in a set of systems which, amongst others, solve the Remote Associates Test, correlating with human performance and come up with alternative object uses.

Short Bio:

Ana-Maria Olteţeanu is the principal investigator of the German Research Foundation (DFG) creative problem solving project CreaCogs at the University of Bremen. Ana-Maria received a summa cum laude Doctorate in Natural Sciences in 2016 in Informatics - Artificial Intelligence and Cognitive Systems, at University of Bremen, after a PhD in Musicology (National University of Music, Bucharest 2011) and a MSc with Distinction in Cognitive Computing (University of London, 2011). Her thesis on creative problem solving got nominated for the EurAI dissertation Prize and shortlisted for the OLB Science prize.

Amongst other honors, Ana-Maria is a Junior HWK Fellow, has received two DAAD RISE grants, two Impulse grants, a 3 year DFG grant and was invited as a Fellow of the First Heidelberg Laureate Forum in 2013, an event bringing together Abel, Fields, and Turing Laureates with next generation of informatics and mathematics researchers.

Ana-Maria organizes the ProSocrates Symposium series on Problem Solving, Creativity and Spatial Reasoning in Cognitive Systems. Ana's interests are related to cognitive systems, creative problem solving, knowledge representation, knowledge acquisition, cognitive modeling and the influence of spatial abilities in problem solving.