



SPECIAL TRACK PROPOSAL

Title: Smart Human-Machine Cooperation: Enhancing accessibility, sustainability and fighting Info-exclusion

Key Organizer(s):

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Topics:

- Accessibility and usability
- Adaptive and augmented interaction
- Augmented reality
- Context-aware interfaces
- Emotional and affective interaction
- Human-computer interfaces
- Image processing and Computer vision
- Interactive technology
- Internet of Things
- Mobile technology
- Multimodal interfaces
- Predicting energy demand
- Smart education
- Smart homes
- Smart tourism
- Social media
- Speech interfaces
- Sustainability
- Tangible and organic interfaces

Description and significance of the Special Track:

Interpersonal relationship defines the association, connection, friendliness, and reciprocity between two or more people, that share common goals and objectives. It manifests when one establishes, reciprocates, or deepens relationships with one another.

In the digital medium, interactions between humans and machines there is no reciprocation. The relations are (usually) impersonal, which does not help communication, so it is necessary to develop mechanisms that enhance cooperation between both.

The above is the so-called Human-Machine Cooperation (HMC), where machines in lato sensu must be developed to cooperate or to learn to cooperate with human beings, i.e., interfaces, devices, applications, etc., software or hardware must be able to evaluate the surrounding environment, the context in which they are used and the user special needs and behaviours in a way to allow on-the-fly cooperation with humans.

In summary, to be successful to achieve HMC, the machine needs to provide the "correct" information and functionality at the "right" time and in the "right" way to support the user's (individual) characteristics, special needs, tasks, contexts and feelings.

This special track aims for state of the art studies, applications, interfaces, software and hardware that allows in the present or near future a more "interpersonal" relation between the digital world and humans, which will allow accessibility enhancing, sustainability and fighting the info-exclusion.