

Special Issue in: *Journal on Multimodal User Interfaces*

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Title: Aspects of Multimodality in Action & Behavior Analysis

Introduction:

The automatic understanding of human action and behavior has many applications, both explicitly for the control of interfaces and implicitly, for example in smart homes. This understanding starts with the recording of human behaviors using various sensors such as video, audio and haptic devices. Low-level processing and higher-level analysis can benefit from the integration of cues coming from various modalities. Of particular interest are approaches that deal with the partially complementary, partially redundant and possibly contradictory information obtained from the different sensors. In many cases, a multidisciplinary approach that involves both computing (machine learning, pattern recognition, signal processing), psychology (nonverbal, cognitive) and human-computer interaction is needed to successfully cope with these issues.

The special issue is not limited to a specific application. Rather, we aim at covering the broad spectrum that benefits from the automatic, multimodal understanding of action and behavior, including security, smart homes, media and corpus analysis, entertainment and serious games. Action recognition, biometrics, affect recognition and body motion tracking are amongst the topics of interest. This special issue targets high-quality, original research papers covering both the challenges and applications of multimodal action & behavior analysis.

List of topics of interest:

Multimodal action/activity/motion recognition	Multimodality in behavior analysis
Emotion recognition	Multimodality in sports activity analysis
Audio-visual integration	Multimodality in smart homes for aged care
Haptics	Action understanding in a group
Affective computing	Activity analysis of crowds
Multi-modal human-robot interaction	Related databases
Body/hand gestures, Gait analysis	Multimodal-based virtual human, nurse, etc.
Biometrics	Assistive technologies
Facial expression analysis	Aspects on constraints, applications, future issues

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- *Submission Date:* August 1st, 2014
- *1st-round Review:* October 31st, 2014
- *2nd-round Review:* January 16th, 2015
- *Publication:* Spring/Summer, 2015

Submission Site:

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