

IEEE Transactions on Affective Computing: Special Issue on Human Behavior Analysis “in-the-wild”

Tentative-Website: <http://ibug.doc.ic.ac.uk/resources/SI-HBAW/>

Scope:

Coming generations of robots and intelligent virtual agents will interact with people in increasingly naturalistic ways. They will automatically perceive and process social signals on a rapid time base with the goal of understand people’s emotions, appraisals, and intentions. Because people operate in a diversity of contexts, human behavior analysis will need to be robust to the diversity of contexts in which people live and to the timing of their displays. The latter is important because the meaning of an expression can depend on its dynamics. Until recently, human behavior analysis was limited to posed behavior in highly controlled contexts and with little attention to precise detection of onsets, offsets, and the temporal, multimodal, and interpersonal envelope of displays. Recent work has turned attention to un-posed, unscripted behavior but contexts have remained relatively constrained and there has been relatively little attention to multimodal communication and the dynamics of displays. As an example, automatic spotting of subtle and fleeting expressions (i.e., micro-expressions) that may powerfully communicate emotion has only recently attracted attention. To meet the need for advanced human behavior understanding that is robust to context and accurately represents the flow and meaning of communicative displays, advances in databases and algorithms are critical.

This special issue addresses the need to bring together leading efforts in human behavior analysis in the wild. We seek advances in databases and algorithms for human behavior understanding in diverse contexts beyond the laboratory. We seek the full range of modalities, social signals, and levels of analysis. We are especially interested in efforts that consider the “packaging” of multimodal signals and interpersonal accommodation or coordination. Modalities include facial expression, body movement and gesture from video; acoustics and prosody from audio; wearable sensors; and infrared imaging. This special issue will present advances in databases, algorithms, benchmarks, and findings in support of the next generation of affective computing.

Topics include but are not limited to “in-the-wild”:

- *Unimodal and multimodal databases and benchmarks.*
- *Supervised and unsupervised learning.*
- *Facial expression, gesture, and body movement for human behavior understanding*
- *Verbal and nonverbal communication.*
- *Multimodal communication.*
- *Discrete and continuous event detection.*
- *Micro-expression detection*
- *Timing and dynamics of intra- and interpersonal communication*
- *Integration of multiple modalities and sensor information.*

Human behaviour understanding in the wild is the common theme. This will be a criterion in evaluating submissions.

Submission:

Submissions must follow IEEE computer society guidelines and not have been published or considered for review by another journal. If material has been included in one or more conference papers, a minimum of 30% new material will be required. In a cover letter, please address any potential overlap with conference papers.

For IEEE guidelines, please see: <https://mc.manuscriptcentral.com/taffc-cs>.

Dates:

Extended Submission deadline: January 15th 2017

First Review: March 16th 2017

Notification of acceptance: June 15th 2017

Final manuscript due: July 15th 2017

Tentative publication date: October 2017

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