



## ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)

Formerly known as TOMCCAP, TOMM focuses on multimedia computing, multimedia communications, and multimedia applications.



## ACM TOMM Call for Papers

### Special Issue on Affective Computing for Large-Scale Heterogeneous Multimedia Data

#### Aim and Scope

With the rapid development of digital photography and social networks, the volume of multimedia content (i.e., text, image, video and audio) is rapidly growing, resulting in great demand for managing, retrieving and understanding multimedia data. Humans perceive and understand multimedia at a higher level than how digital multimedia is stored through understanding cognitive (concepts) and affective representations. Most of the existing works on multimedia analysis focused on understanding the cognitive aspects, namely describing the actual content, such as object detection and recognition. Recently, with an increasing need for emotion and sentiment representation, the analysis of multimedia at the affective level is becoming increasingly relevant.

Affective understanding of multimedia is challenging because it involves understanding human subjective perception and behavior. The development of such methods is hindered by the affective gap and the subjectivity of emotional perceptions. Recently, great advancements in machine learning and artificial intelligence have made large-scale affective understanding of multimedia a possibility, which received a lot of interest and attention from both academia and industry.

This special issue of ACM TOMM seeks original contributions reporting the most recent progress on affective computing technologies for large-scale heterogeneous multimedia data. It targets a mixed audience of researchers from academia and industry from different communities, i.e., multimedia, psychology, machine learning, *etc.* The topics of interest include, but are not limited to:

- Affective content analysis of images, videos and music
- Emotion based image and video summarization
- Affective multimedia tagging, indexing, retrieval and recommendation
- Human-centered emotion perception prediction
- Weakly-supervised/unsupervised learning for affective computing
- Psychological perspectives on affective content understanding
- Deep learning for affective computing
- Fusion methods for multi-modal emotion recognition
- Emotional signals in social media computing
- Crowdsourcing for big data collection and annotation
- Databases and performance evaluation
- Affective computing applications in multimedia, entertainment, *etc.*

#### Important Dates

- Submission deadline: December 15, 2018
- First notification: February 15, 2019
- Revision submission: April 15, 2019
- Notification of acceptance: May 31, 2019
- Online publication: July 2019

## **Review Process**

The review process will comply with the standard review process of the ACM TOMM journal. Each paper will receive at least three reviews from experts in the field.

## **Submission Instructions**

Prospective authors are invited to submit their manuscripts electronically after the “open for submissions” date, adhering to the ACM TOMM journal guidelines (see <https://tomm.acm.org/authors.cfm>). Please submit your papers through the online system (<https://mc.manuscriptcentral.com/tomm>) and be sure to select the special issue. Manuscripts should not be published or currently submitted for publication elsewhere. Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere. If the submission is an extended work of a previously published conference paper, please include the original work and a cover letter describing the changes that have been made. According to ACM TOMM publication policy previously published conference papers can be eligible for publication provided that at least 25% new material is included in the journal version.

## **Guest Editors**

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