



Call for Papers

Special Issue on Deep Learning for Intelligent Multimedia Analytics

Today's digital contents are inherently multimedia: text, image, audio, video etc., due to the advancement of multimodal sensors. Image and video contents. Accelerated by tremendous increase in Internet bandwidth and storage space, multimedia data has been generated, published and spread explosively, becoming an indispensable part of today's big data. Such large-scale multimedia data has opened challenges and opportunities for intelligent multimedia analysis. Meanwhile, with the recent advances in deep learning techniques, we are now able to boost the intelligence of multimedia analysis significantly and initiate new research directions to analyze multimedia content. Therefore, deep learning for intelligent multimedia analysis is becoming an emerging research area in the field of multimedia and computer vision.

The aim of this special issue is to call for a coordinated effort to understand the scenarios and challenges emerging in multimedia analysis with deep learning techniques, identify key tasks and evaluate the state of the art, showcase innovative methodologies and ideas, introduce large scale real systems or applications, as well as propose new real-world datasets and discuss future directions. The multimedia data of interest cover a wide spectrum, ranging from text, audio, image, click-through log, Web videos to surveillance videos. We solicit manuscripts in all fields of multimedia analysis that explores the synergy of multimedia understanding and deep learning techniques.

The special issue will offer a timely collection of research updates to benefit the researchers and practitioners working in the broad fields ranging from computer vision, multimedia to machine learning. To this end, we solicit original research and survey papers addressing the topics listed below (but not limited to):

- Multimedia Retrieval (image search, video search, speech/audio search, music search, retrieval models, learning to rank, hashing).
- Web IR and Social Media (link analysis, click models, user behavioral mining, social tagging, social network analysis, community-based QA).
- Deep image/video understanding (object detection and recognition, localization, summarization, highlight detection, action recognition, multimedia event detection and recounting, semantic segmentation, tracking).
- Vision and language (image/video captioning, visual Q&A, image/video commenting, storytelling).
- Multimedia data browsing, visualization, clustering and knowledge discovery.
- Home/public video surveillance analysis (motion detection and classification, scene

understanding, event detection and recognition, people analysis, object tracking and segmentation, human computer/robot interaction, behavior recognition, crowd analysis).

- Multimedia-based security and privacy analysis.
- Data collections, benchmarking, and performance evaluation.
- Other applications of large-scale multimedia data.

Important dates

- Submission Deadline: Oct. 15, 2017
- Decision notification: Dec. 15, 2017
- Revision due: Feb. 1, 2017
- Acceptance notification: April. 1, 2018
- Camera ready version due: May 1, 2018
- Online Publication: Summer 2018

Review process

The review process will comply with the standard review process of the ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMM) journal. Each paper will receive at least three reviews from experts in the field.

Paper submission

Prospective authors are invited to submit their manuscripts electronically after the “open for submissions” date, adhering to the ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMM) journal guidelines (see <http://tomm.acm.org/authors.cfm>). Please submit your papers through the online system 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

[Wei Zhang](#)

Institute of Information Engineering, Chinese
Academy of Sciences, China
wzhang.cu@gmail.com

[Ting Yao](#)

Microsoft Research Asia, China
tiyao@microsoft.com

[Shiai Zhu](#)

Alibaba Group, China
zshiai@gmail.com

[Abdulmotaleb El Saddik](#)

University of Ottawa, Canada
elsaddik@uottawa.ca