Call for Papers

IEEE Transactions on Multimedia
Special Issue on Visualization and Visual Analytics for Multimedia
http://www.signalprocessingsociety.org/tmm/

Submission Info

    Deadline: 18:00 EST, April 15th 2016

    Link: http://mc.manuscriptcentral.com/tmm-ieee

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We call for novel and high-quality papers on the topic of visualization and visual analytics of multimedia data for a special issue of IEEE Transactions on Multimedia (IEEE TMM). This special issue focuses on presenting the state-of-the-art visualization and visual analysis techniques that are developed for solving important problems in the multimedia domain. Visual analytics is an emerging research direction that focuses on data exploration and analysis with a seamless integration of interaction, visualization, and analysis (such as data mining and machine learning). By showing data and analysis results in context, a visualization can display rich evidences that support or against the analysis results, thus helping with data interpretation and results validation. The analysts can annotate on (e.g. label on) or adjust the results via interactive user interfaces and visualizations to supervise the underlying analysis procedure based on, for example, advanced active learning algorithms, producing more and more precise analysis and correct results gradually. The combination enables human-centric computational intelligence by effectively integrating human knowledge and expertise with powerful computational algorithms through the high-bandwidth visual processing channel and user interaction.

Recent progress on visualization and visual analytics creates new opportunities for understanding and making sense of large-scale, dynamic, heterogeneous multimedia data through "analytical reasoning facilitated by interactive visual interfaces". Existing studies of visual analytics have already produced some insightful results and findings, which demonstrates the success and effectiveness of visual analytics for dealing with the complex multimedia data.

This special issue will introduce the readership to the latest innovations in visual analytics for multimedia and provide a spotlight on an emerging and promising area of research within the larger multimedia community.

Topics

The topics of interest include, but are not limited to:

1. Visual analytics of multimedia datasets, such as
   - Texts and audio data ／ Speech and music data
   - Images and videos
   - Spatio-temporal data ／ Sensor data
   - Social media data ／ Mooc data ／ Social and web multimedia data
   - Healthcare Data
2. Visual and interaction assisted multimedia analysis techniques for
   - Multimedia search and retrieval
   - Multimedia indexing (e.g., hashing)
   - Object detection, tracking, categorization, and clustering
   - Surveillance and semantic analysis
   - Outlier detection in multimedia
3. Visualization based multimedia environment, such as
   - Multimedia interfaces and interactions
   - Visual environments and workspaces
   - Multimodal signal representation and visualization
4. Human centric multimedia, such as
   - Multimodal human-human and human-computer Dialog
   - Multimodal human-machine interfaces and interaction
   - Multimedia using haptic and physiological information
   - Multimodal perception, integration, and multisensory Fusion
   - Multi-screen user experience
   - Subjective and objective quality assessment, and user experience

Important Dates

- Submission Deadline: 4/15/2016
- First Round Review Notification: 7/01/2016
- Revision Due: 8/01/2015
- Final Acceptance Notification: 9/01/2016
- Camera Ready (after minor revision) Due: 9/15/2016
- Publication: November 2016

Submission guideline:

Prospective authors should submit original manuscripts that have not appeared, nor are under consideration, in any other journals. Prospective authors are required to strictly follow the Author's Guide for manuscript submission to the IEEE Transactions on Multimedia (TMM) at http://www.signalprocessingsociety.org/tmm/, and manuscripts should be submitted electronically through the online IEEE manuscript submission portal at http://mc.manuscriptcentral.com/tmm-ieee.