



Call for Papers

Multimedia Systems

Special Issue

**Visual Semantic Analysis
with Weak Supervision**

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Aims and Scopes

Recently we have witnessed an explosive growth of image/video data in both the local centers and social-networking websites, such as Flickr, YouTube, Twitter and Facebook. To effectively fill the semantic gap of these visual media, weakly supervised learning paradigms are developed, focusing on an intelligent mechanism that transfers the image/video level semantics to different regions. Compared to the labor-intensive labeling in fully supervised setting, the transferring mechanism can greatly reduce the human effort, especially given the tremendous visual data on the websites. Extensive research efforts have been dedicated to weakly supervised learning the visual semantics. While effective tools to manipulate these data are still at their infancy. This special issue will target the most recent technical progresses on learning techniques for visual semantic understanding with weak supervision, such as weakly labeled image segmentation, photo cropping, video summarization and so on. This special issue also targets on applying new types of weak supervision in visual semantic modeling, e.g., image retrieval based on user feedback and interactive image rendering. The primary objective of this special issue fosters focused attention on the latest research progress in this interesting area. The special issue seeks for original contribution of work which addresses the challenges from the learning techniques for visual semantic understanding. The list of possible topics includes, but not limited to:

- Weakly supervised framework for image classification and retrieval
- Image/video quality models based on weakly supervised learning
- Weakly supervised displaying techniques
- Visual tracking in complex environment
- Visual semantic learning in social media
- Visual recognition, retrieval summary, annotation with weak supervision

- Learning weak attributes for multimedia data analysis
- Action and event recognition with weak supervision
- Visual semantic understanding in 3D/stereo data
- Learning visual semantics for intelligent traffic system
- Human interactive learning for image recognition and processing
- Visual feature extraction with weak supervision
- Weakly-supervised indexing/hashing techniques for large-scale multimedia retrieval

Submission Guideline

Papers submitted to this special issue for possible publication must be original and must not be under consideration for publication in any other journal or conference.

If the submission is an extended version of a previously published workshop or conference paper, this should also be explicitly mentioned in the cover letter, the published paper must be cited in the submitted journal paper, and the submitted journal paper must technically extend the conference version, by 30% according to MMSJ rules; i.e., the technical contribution in the journal version must be extended beyond what was presented in the conference version.

Authors must follow the formatting and submission instructions of *MMSJ* at <http://www.springer.com/530> and follow the "Submit Online" link on that page. Please make sure you mention in your cover letter that you are submitting to this special issue.

Important Dates

- Paper submission due: June 1st, 2014
- First notification: August 1st, 2014
- Revision: October 1st, 2014
- Final decision: December 1st, 2014
- Publication date: Spring 2015 (Tentative)



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