

Call for Papers

IEEE Transactions on Multimedia Special Issue on Learning from Noisy Multimedia Data

SUMMARY

With the development of computing power and deep learning algorithms, we can process and apply millions or even hundreds of millions of large-scale data to train robust models. Nevertheless, constructing a million-scale dataset like ImageNet is time-consuming and labor-intensive. Fortunately, web data are rich and free resources. For arbitrary categories, the potential training data can be easily obtained from the web (e.g., search engines such as Google and Bing, Twitter, Instagram, and short video sharing applications). Moreover, with the development of the Internet, web data consist of much richer modality, such as text, audio, image, and video. It is consequently natural to leverage the large-scale yet noisy data on the web to automatically construct various types of datasets. However, there are two critical issues in the automatically collected datasets: “label noise” and “domain mismatch”. Learning directly from noisy web data tends to have poor performance.

This special issue serves as a forum for researchers all over the world to discuss their works and recent advances in learning from noisy web data. Both state-of-the-art articles, as well as comprehensive literature reviews, are welcome for submission. To provide readers of the special issue with an understanding of the most current issues in this field, we will invite one survey paper, which will undergo peer review. Papers addressing interesting real-world multimedia as well as computer vision applications are especially encouraged.

SCOPE

The special issue seeks original contributions which address the challenges in learning from noisy multimedia data. Possible topics include but are not limited to:

- Webly supervised visual classification, detection, segmentation, and feature learning
- Large-scale/web-scale noisy data learning systems
- Label noise in deep learning, theoretical analysis, and application
- Automatic image dataset construction and application
- Multi-modality theoretical analysis and application

- Data augmentation theoretical analysis and application
- Transfer learning across labeled and web data
- New datasets and benchmarks for webly supervised learning

IMPORTANT DATES – DEADLINES EXTENDED

Paper submission due: **Feb. 28, 2021** First review notification: **Apr. 15, 2021**
Revision due: **June 15, 2021** Second review notification: **July 15, 2021**
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SUBMISSION PROCEDURE

Papers should be formatted according to the IEEE Transactions on Multimedia guidelines for authors (<http://www.signalprocessingsociety.org/tmm/tmm-author-info/>). By submitting/resubmitting your manuscript to these Transactions, you are acknowledging that you accept the rules established for publication of manuscripts, including an agreement to pay all over-length page charges, color charges, and any other charges and fees associated with the publication of the manuscript. Manuscripts (both 1-column and 2-column versions are required) should be submitted electronically through the online IEEE manuscript submission system at <http://mc.manuscriptcentral.com/tmm-ieee>. All submitted papers will go through the same review process as the regular TMM paper submissions. Referees will consider originality, significance, technical soundness, clarity of exposition, and relevance to the special issue topics above.