

Semantics Discovery from Multimedia Big Data

Introduction

With the advance of mobile devices and internet, multimedia data can be easily created, uploaded, and shared. The amount of multimedia data has increased rapidly, and the academic/industrial communities have been boosted to provide a broad range of services/applications through analyzing multimedia big data. The computation power and storage resource of cloud servers also enable multimedia services demanding massive calculation to be applicable. One of the most important issues among multimedia big data analysis is how to efficiently retrieve articles, images, videos, or audios from a large-scale web dataset. Cross-domain retrieval also draws the attention of researchers since two multimedia contents containing the same semantic concept (e.g. object, event, activity/behavior, emotion) might be perceived quite differently due to variations in content quality or content styles. From millions of online multimedia sources, how to extract important information and present condensed content to users is also a big challenge. We can expect an even greater emphasis on semantics analysis, ROI analysis, trend prediction, and behavior analysis of online multimedia data. Obviously, we have witnessed a trend that more innovative algorithms as well as systems are being developed to aggregate heterogeneous multimedia data, for convenience, for fun, or for leisure. Therefore, this special session focuses primarily on novel services and applications developed based on all kinds of multimedia big data. We are pleasure to invite researchers working in this area to submit their results. The interest topics include, but are not limited to:

- Multimedia indexing and retrieval
- Object detection, tracking, and recognition
- Human behavior understanding and activity analysis
- Emotion analysis in video/audio
- Multimodal / Cross domain data analysis
- Web analytics tactics for social media
- Intelligent interfaces for semantically enriched multimedia collections
- Interactive media and immersive environments
- Other applications in multimedia industry, games industry, biometrics, surveillance and security, medicine and biology, cultural heritage