

Proposal for Special Issue of Multimedia Tools and Applications (MTAP): “Semantic Multimedia”

Growing amounts of multimedia data of various modalities (video, audio, 3D objects, etc.) make management, distribution of and access to multimedia material ever harder, both for lay and professional users. Novel approaches, bridging the large disparity between descriptors computed automatically from multimedia content and subjectivity and context in user interpretation and interaction, are required. It still needs to be further explored how technologies from different research areas can be used to increase the value of multimedia content, e.g. to assist multimedia representation, analysis and annotation with semantics and knowledge based methods.

This special issue invites high quality contributions addressing related theoretical and practical aspects of semantic multimedia. Authors of selected outstanding papers from the 4th International Conference on Semantic and Digital Media Technologies (SAMT 2009) will be invited to submit extended versions of their papers for this special issue.

Topics of interest include, but are not limited to:

- Semantic Analysis of Multimedia
 - Knowledge assisted multimedia analysis
 - Content-based multimedia analysis linked with natural language/speech processing
- Semantic Retrieval of Multimedia
 - Semantic-driven multimedia indexing and retrieval
 - Semantic retrieval of 3D objects
 - Machine Learning and relevance feedback for finding semantics
 - Semantic-driven multimedia content adaptation and summarization
- Semantic Metadata Management of Multimedia
 - Metadata management for multimedia
 - Multimedia ontologies and infrastructures
 - Standards bridging the multimedia and knowledge domains
- Semantic User Interfaces for Multimedia
 - Interfaces and personalization for interaction with large multimedia repositories
 - Semantic media annotation
 - Inference and machine learning for semi-automatic annotation
 - Browsing multimedia archives
 - Device-specific access to and adaptation of multimedia
- Semantics in Visualization and Computer Graphics
 - illustrative depiction and rendering
 - mapping meaning to presentation content
 - smart virtual environments
 - supporting knowledge discovery
- Applications of Semantic Multimedia
 - Social multimedia tagging
 - Context, user, network and semantics-aware media engineering
 - Multimedia mash-ups
 - Case studies with clear, innovative lessons learned

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