1st International Workshop on Multimodal Media Data Analytics (MMDA 2016)

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Workshop Title - **1st International Workshop on Multimodal Media Data Analytics (MMDA 2016)**
In conjunction with the 22nd European Conference on Artificial Intelligence (ECAI) 2016.

1 Motivation

The rapid advancements of digital technologies, as well as the penetration of internet and social media usage have resulted in a great increase of heterogeneous multimedia data production worldwide. In many application fields (e.g. journalism, media monitoring) intelligent systems are required for supporting the stakeholders. In recent years, research has been directed towards the development of intelligent systems and tools dealing with media content analysis. However, the magnitude, the diversity and the heterogeneity of the data involved require novel intelligent techniques from the broad area of artificial intelligence to deal and extract meaningful interpretation and provide decision support and summarisation services. This need has been reflected also by relevant research projects, such as MULTISENSOR[1] and EUMSSI[2], which have focused on providing multimodal analytics of heterogeneous data with an aim to support journalism, media monitoring, international investments and second screen applications.

In this context, MMDA presented works relevant to media management, multimedia content analysis, concept- and event-based indexing, semantic integration and retrieval, as well as multimodal fusion and content summarisation. In addition, an invited talk on audiovisual linking was given by Roeland Ordelman, University of Twente, Netherlands.

2 Aims of the workshop

The goal of MMDA workshop was twofold. First, the workshop focused on presenting the most recent methods for the extraction, interpretation, retrieval, fusion, aggregation, summarisation and visualisation of news content. Second, it aimed at bringing together practitioners and researchers, both from the multimodal analytics and media industry domains, to share ideas and experiences in designing and implementing novel multimedia and multilingual analysis and retrieval techniques and tools for journalistic and media monitoring applications.

[1] http://www.multisensorproject.eu/
[2] http://www.eumssi.eu/

3 Workshop themes

Research topics of interest for this workshop included, but were not limited to:

- Multimedia indexing and retrieval
- Multilingual content extraction
- Concept extraction from multilingual text and multimedia
- Speech recognition
- Person identification in audiovisual content
- Content-based video segmentation
- Machine translation of media content
- Sentiment analysis and opinion mining
- Social media analytics
- Contributor and influencer analysis in social media
- Context representation and extraction approaches
- Semantic content modelling and integration
- Multimedia topic and event detection
- Semantic reasoning for media content applications
- Intelligent decision support services based on media content
- Multilingual summarisation of media content
- Visualisation and interactive interfaces for news
- Multimodal content fusion and retrieval
- Clustering and classification of multimedia
- Web crawling and scraping
- Intelligent application for media management and retrieval

4 Organisation

Chairs

- Stefanos Vrochidis (Information Technologies Institute/CERTH, Greece)
- Maite Melero (UPF, Spain)
- Leo Wanner (ICREA-UPF, Spain)
- Jens Grivolla (UPF, Spain)
- Yannick Estève (LIUM-University of Le Mans, France)

Program Committee

- Ioannis Kompatsiaris (CERTH-ITI, Greece)
- Martha Larson (TUDelft, Netherlands)
- Sylvain Meignier (LIUM, France)
- Maria Eskevich (Centre for Language Studies, Faculty of Arts, Radboud University, Netherlands)

- Frederic Bechet (LIF, France)
- Peter Bell (University of Edinburgh, UK)
- Vladimir Alexiev (Ontotext, Bulgaria)
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- Mariana Damova (Mozajka, Bulgaria)
- Klaus Schoeffmann (Klagenfurt University, Austria)
- Stephanie Elzer Schwartz (Millersville University, USA)
- Dimitrios Liparas (CERTH-ITI, Greece)
- Geraldine Damnati (Orange, France)
- Stamatia Dasiopoulou (UPF, Spain)
- Georges Linares (LIA, France)
- Simon Mille (UPF, Spain)
- Symeon Papadopoulos (CERTH-ITI, Greece)
- Guillaume Gravier (IRISA, CNRS, France)
- Ioannis Arapakis (Eurecat, Spain)
- Benoit Huet (EURECOM, France)
- Reinhard Busch (LT, Germany)
- Gerard Casamayor (UPF, Spain)
- Gregor Thurmair (LT, Germany)

5 Invited talk

Title: Audiovisual Linking: Scenarios, Approaches and Evaluation
Presenter: Roeland Ordelman, University of Twente, Twente, Netherlands.
Abstract: The concept of (hyper)linking, well-known in the text domain, has been inspiring researchers and practitioners in the audiovisual domain since many years. In this talk, an overview of a number of use scenarios that can benefit from audiovisual linking is given, some approaches that have been proposed over the last few years are presented and the evaluation of audiovisual linking is discussed.

6 List of papers

- D. Liparas, S. Vrochidis, I. Kompatsiaris, G. Casamayor, L. Wanner, I. Arapakis, D. García Soriano, R. Busch, B. Vaisman, B. Simeonov, V. Alexiev, A. Belous, E. Jamin, N. Heise, T. Wagner, M. Jugov, M. Eckhoff, T. Forrellat and M. Puigbó, *The MULTISENSOR project – Development of Multimedia Content Integration Technologies for Journalism, Media Monitoring and International Exporting Decision Support*
- J. Grivolla, Y. Estève, E. Herder, N. Le, K. Macquarrie, R. Marín, S. Meignier, M. Melero, J.M. Odobez and S. Preuß, *The EUMSSI project – Event Understanding through Multimodal Social Stream Interpretation*
- J. Grivolla, M. Melero and T. Badia, *EUMSSI: Multilayered analysis of multimedia content using UIMA, MongoDB and Solr*
- I. Gialampoukidis, D. Liparas, S. Vrochidis and I. Kompatsiaris, *Query-based Topic Detection Using Concepts and Named Entities*
- P.A. Broux, D. Doukhan, S. Petitrenaud, S. Meignier and J. Carrive, *An active learning method for speaker identity annotation in audio recordings*
- Y. Estève, S. Ghannay and N. Camelin, *Recent improvements on error detection for automatic speech recognition*
- S. Mille, M. Ballesteros, A. Burga, G. Casamayor and L. Wanner, *Multilingual Natural Language Generation within Abstractive Summarization*
- J. Codina-Filbà and L. Wanner, *Combining Dictionary- and Corpus-Based Concept Extraction*