

Trip Report:

Special Session during ISCAS 2006

Conference:

2006 IEEE International Symposium on Circuits and Systems

Island of Kos, Greece, May 21-24, 2006

<http://www.iscas06.org/>

Special Session:

Advances in semantic multimedia analysis for personalised content access

During 2006 IEEE International Symposium on Circuits and Systems, the special session "**Advances in semantic multimedia analysis for personalised content access**" was organized. The session brought together researchers and practitioners from the semantic multimedia analysis and personalisation domains, where the authors presented a informative summary of their work and the state of the art in this field. Special focus was put on user benefits of semantic multimedia in creating new applications, and especially in enabling users to gain greater satisfaction from multimedia services.

The session, chaired by Paola Hobson and Yiannis Kompatsiaris included the following five presentations:

- Paola Hobson, Yiannis Kompatsiaris,
"Advances in semantic multimedia analysis for personalised content access",
 - *In this special session overview presentation, the authors presented an introduction to the advances in semantic multimedia analysis for personalized content access. Authors firstly identified the importance of semantic multimedia analysis for personalized multimedia content applications, from a user and business perspective. They then summarized the state of the art in these novel, and emerging domains. Finally, they described some applications under development and evaluated their possible future commercial success.*
- A. Murat Tekalp,
"Semantic Multimedia Analysis for Content-Adaptive Video Streaming",
 - *This presentation provided a review of recent approaches for semantic content analysis using multiple modalities, such as video, audio, and on- screen text. It also introduced new methods for shot (GoP) level rate allocation for content-adaptive multimedia streaming in order to achieve the best user utility given relevance-distortion policy and available average channel bandwidth of a user. Some examples were provided.*
- Noel O'Connor, Hyowon Lee, Alan Smeaton, Gareth Jones, Edward Cooke, Herve Le Borgne, Cathal Gurrin,
"Fischlar-TRECVID-2004: combined text- and image-based searching of video archives"

- *This presentation described Fischlar-TRECvid-2004 system. The Fischlar-TRECvid-2004 system was developed for Dublin City University's participation in the 2004 TRECvid video information retrieval benchmarking activity. The system allows search and retrieval of video shots from over 60 hours of content. The shot retrieval engine employed is based on a combination of query text matched against spoken dialogue combined with image-image matching where a still image (sourced externally), or a keyframe (from within the video archive itself), is matched against all keyframes in the video archive. Two variants of the system were developed, one that supports both text- and image-based searching and one that supports image only search. The presentation also described a user evaluation experiment that compared the use of the two systems. Results show that while the system combining text- and image-based searching achieves greater retrieval effectiveness, users make more varied and extensive queries with the image only based searching version.*
- Alyson Evans, Miriam Fernandez, David Vallet, Pablo Castells, "Adaptive Multimedia Access: From User Needs to Semantic Personalisation"
 - *In this presentation the authors discuss the use of a reliable user requirements methodology for gathering essential data relating to user needs in advanced, personalized multimedia content applications. They revised the implications of these requirements in the development of advanced personalized searching and browsing tools aimed at assisting the end-consumer by complementing explicit user requests with implicit user preferences, to better meet individual user needs. Then they examined the important technical challenges such as representing conceptual-level user interests, and coping with the subtleties of user preferences, such as variability and heterogeneity, which we see as critical for the success of personalisation techniques.*
- Lynda Hardman, Jacco van Ossenberg (presented by Zeljko Obrenovic), "Creating Meaningful Presentations"
 - *This presentation discusses how semantic annotations of multimedia elements are used to improve the presentation of query results. The use of both domain and discourse semantics to generate multimedia presentations and video sequences is discussed.*

General impression is that the session was very well organized, while presentations and discussions were interesting and of high-quality. An only problematic issue is that the session was slightly out-of-the scope of the conference.

Presentations from this special session can be found at
<http://www.acemedia.org/aceMedia/reference/news/46.html>.

ISCAS web page for this session:
http://www.epapers.org/iscas2006/ESR/session_view.php?session_id=129