OntoImage'2008

International Workshop

Language Resources for Content-based Image Retrieval Held in conjunction with LREC'2008

Scope

There are two computer-aided methods for accessing images:

- indexing textual descriptions (done mostly by public retrieval engines)
 - o assigned manually on community sharing sites, e.g. Flickr;
 - \circ extracted from the text of the web page associated with the image , e.g. Google
 - \circ $\,$ extracting textual information inside the image using OCR techniques
- indexing low-level visual features (colour, texture, etc.) of the images (called Content Based Image Retrieval CBIR).

Combining these two methods is currently a hot topic since it involves developing hybrid approaches using automatic image tagging from text along with low level visual features from an image to produce text metadata. One of the main limitations within state-of-the-art CBIR resides in the mismatch (the "Semantic Gap" in image analysis) between low-level visual descriptors and the human-understood semantics of picture similarity. There are problems of vocabulary at all levels in the description of an image. There is a mismatch between the text found around an image, between the keywords that people assign to an image, and between the objects that can be recognized in an image. How can available language resources (terminology, thesauri, ontologies, etc.) help? How much must they be altered to reduce the semantic gap?

This half-day workshop will present up to 9 papers examining the intersection of language resources and image analysis and retrieval.

We welcome submissions addressing the following questions:

- What elements in a lexicon correspond to picturable objects?
- How can language resources be used to organize and improve user contributed image annotations?
- Which are the roles of language resources in image retrieval?
- How should language resources and image processing techniques be integrated?
- How can current language resources be adapted for content-based image retrieval in real-world applications, like the Web search?
- Can language resources and low-level visual descriptors be organized into a joint knowledge infrastructure?
- Do we need new semantic structures (ontologies, thesauri) for CBIR? Can we build them (semi)automatically?
- What visual characteristics of objects can be discovered by text processing (color, size, location, shape, texture)?
- What is the relation between the lexicon and image indexing and retrieval? What words should be associated with an image? Can this be automated?
- How to combine speech and textual resources related to image data?
- What are some application areas where this research can be evaluated?

Submissions		
We expect extended abstracts describe	ng research addressing one of the above questions of	
about 1500 words to be submitted as	WORD, PDF or ASCII documents per email to the	
following address: adrian.popescu@cea	<u>a.fr</u>	Code de champ modifié
A reception notification will be sent to	the authors within 48 hours. The final papers should	
have no more than 6 pages.		
Important dates		
Deadline for Abstracts	February 20, 2008	
Notification of acceptance	March 10, 2008	
Final Papers	March 31, 2008	
Workshop	May 26, 2008 (afternoon session)	
Co-located with LREC'2008 <u>http://www.lrec-conf.org/lrec2008</u> Organizing committee Thierry Declerck, Deutsches Forschungszentrum für Künstliche Intelligenz, Germany Adrian Popescu, Commissariat à l'Energie Atomique LIST, France Allan Hanbury, Vienna University of Technology, Austria Judith L. Klavans, University of Maryland, USA Ouestions		
Questions about the workshop	can be addressed to: declerck@dfki.de or	Code de champ modifié
adrian.popescu@cea.fr		Code de champ modifié
URL of the workshop: <u>http://www.d</u>	^r ki.de/~declerck/ontoimage.html	Code de champ modifié
The Workshop is endorsed among oth (<u>www.k-space.eu</u>)	ners by the European Network of Excellence K-Space	Code de champ modifié