THESEUS/ImageCLEF Pre-Workshop

Corfu, Greece, 29th September 2009

एन्डdings

Edited by

Peter Dunker Judith Liebetrau Stefanie Nowak Prof. Henning Müller Dr. Panagiotis Vlamos

> Federal Ministry of Economics and Technology







THESEUS/ImageCLEF Pre-Workshop 2009

Co-located with the Cross-Language Evaluation Forum (CLEF) Workshop and 13th European Conference on Digital Libraries ECDL 2009

Proceedings Corfu, Greece, 29 September, 2009

Edited by

Peter Dunker Judith Liebetrau Stefanie Nowak Prof. Henning Müller Dr. Panagiotis Vlamos

Copyright © 2009 Fraunhofer IDMT

Content

Organizing Committee	3
Keynote Speaker	4
Workshop Program	6
Publications	7



Organized by

Peter Dunker Judith Liebetrau Stefanie Nowak Fraunhofer IDMT www.idmt.fraunhofer.de



Prof. Henning Müller University Hospitals of Geneva



Co-organized by

Dr. Panagiotis Vlamos Ionian University, Department of Informatics



IONIAN UNIVERSITY DEPARTMENT OF INFORMATICS

Sponsored by

THESEUS Research Program (Funded by the German Federal Ministry of Economics and Technology)





Federal Ministry of Economics and Technology

Keynote Speaker

Professor Stefan Rueger

Knowledge Media Institute, The Open University, Milton Keynes, UK

"More than a thousand words"

This talk will examine the challenges and opportunities of Multimedia Search, i.e., finding multimedia by fragments, examples and excerpts. What is the state-of-the-art in finding known items in a huge database of images? Can your mobile phone take a picture of a statue and tell you about its artist and significance? What is the importance of geography as local context of queries? To which extent can automated image annotation from pixels help the retrieval process? Does external knowledge in terms of ontologies or other resources help the process along?

Speaker's Biography

Stefan Rueger read Theoretical Physics at Free University Berlin, gained a PhD in Computer Science at Technical University Berlin in 1996 and carved out his academic career at Imperial College London from PostDoc to a Readership in Multimedia and Information Systems. In 2006 he joined The Open University's Knowledge Media Institute as Professor of Knowledge Media. He is also a Visiting Principal Research Fellow for Imperial College London and holds an Honorary Professorship from the University of Waikato, New Zealand. For more details see http://kmi.open.ac.uk/mmis.

Keynote Speaker

Dr. Ralf Schäfer

Fraunhofer HHI, Berlin, Germany

"Theseus Project – Semantic and Image Processing Technologies and its Applications" THESEUS is an umbrella organization uniting over 30 research institutions from the public sector and the industry to collaborate in developing and designing innovative base technologies. The goal: To simplify access to information, gain new knowledge by networking data, and create the basis for the development of new Internet services.

The focus of the research program is on semantic technologies, which determine contents (words, images, and sounds) not through conventional methods (e.g., combinations of letters), but are able to recognize and place the meaning of content in its proper context. Using these technologies, computer programs can intelligently comprehend the context in which data were was stored. In addition, computers can draw logical inferences from the contents and autonomously recognize and produce connections between various pieces of information from different sources by applying rules and order principles.

Speaker's Biography

Ralf Schäfer received his Dipl.-Ing. and Dr.-Ing. degrees in electrical engineering from the Technical University of Berlin in 1977 and 1984 respectively. In October 1977 he joined the Heinrich-Hertz-Institut (HHI) in Berlin. From this time on, he worked in various fields of signal processing and image coding and lead several research projects. Since 1989 he is head of the Image Processing Department, where he is responsible for about 50 researchers and technicians, about 40 students, and about 30 R&D projects funded by the German Government (BMBF, BMWi), by the German Science Foundation (DFG), by the European Commission, and by industries.

Ralf Schäfer is member of the German "Society for Information Technology" (ITG), where he is chairman of the experts committee "TV Technology and Electronic Media" (FA 3.1) and chairman of the experts group "Digital Coding" (FG 3.1.2). Furthermore, he is member of the German "Society for Television and Motion Picture Technology" (FKTG), where he belongs to the URTEL Award Committee.

He serves permanently as an independent expert and reviewer for the European Commission, and he was Chairman or member of Programme Committees of many national and international conferences. For more information see: <u>http://iphome.hhi.de/schaefer/bio.htm</u>

Workshop Program

Begin	Duration	Name	Description
			Opening
			Welcome to Workshop
09:30		Prof. Henning Müller	Overview ImageCLEF 2009
09:45	0:15 min	Dr. Panagiotis Vlamos	Welcome by the University
		Keynote	Theseus Project - Semantic and Image
10:00	0:45 min	Dr. Ralf Schäfer	Processing Technologies and its Applications
			Affect, Appeal, and Sentiment as Factors
			Influencing Interaction with Multimedia
		Jussi Karlgren	Information
11:05	0:20 min	Coffee break	
			Hierarchical Annotation of Large Image
11:25	0:20 min	Mark Huiskes	Collections
			A Consumer Photo Tagging Ontology: Concepts
11:45	0:20 min	Stefanie Nowak	and Annotations
			Are clickthrough data reliable as image
12:05	0:20 min	Theodora Tsikrika	annotations?
12:25	0:20 min	István Petrás	SzTAKI@ImageCLEF 2009
12:45	2:00 min	Lunch	
		Keynote	
14:45	0:45 min	Prof. Stefan Rüger	More than a thousand words
15:30	0:20 min	Hugo Jair	On the SAIAPR TC-12 Benchmark
			Application and Evaluation of Multi-Dimensional
15:50	0:20 min	Teerapong Leelanupab	Diversity
16:10	0:20 min	Coffee break	
			Evaluation of Algorithms for the Summarization of
16:30	0:20 min	Alexander Loos	Photo Collections
			Multidimensional structural descriptors for
16:50	0:20 min	Alexander Dmitruk	medical image retrieval
			Ontology-based Annotation and Retrieval System
17:10	0:20 min	Adil Alpokocak	for Digital Mammography Images
		Henning Müller,	Closing
17:30	0:30 min	Judith Liebetrau	Final Discussion
20:00		Workshop Dinner	Location announced in the Workshop

Location: University of Corfu, Greek (Department of Informatics, Plateia Tsirigoti 7, Aretaios Building, Room 3, Second Floor)

Publications

Jussi Karlgren Affect, Appeal, and Sentiment as Factors Influencing Interaction with Multimedia Information	8
Mark J. Huiskes and Michael S. Lew Hierarchical Annotation of Large Image Collections	12
Stefanie Nowak and Peter Dunker A Consumer Photo Tagging Ontology: Concepts and Annotations	20
Theodora Tsikrika and Christos Diou and Arjen P. de Vries and Anastasios Delopoulos Are clickthrough data reliable as image annotations?	30
<i>I. Petrás, B. Daróczy, Zs. Fekete</i> SzTAKI@ImageCLEF 2009	37
Hugo Jair Escalante and Manuel Montes and Enrique Sucar On the SAIAPR TC-12 Benchmark	44
Teerapong Leelanupab and Martin Halvey and Joemon M. Jose Application and Evaluation of Multi-Dimensional Diversity	52
Alexander Loos and Ronny Paduschek and Daniel Kormann and Peter Dunker Evaluation of Algorithms for the Summarization of Photo Collections	60
Vassili Kovalev and Igor Safonov and Alexander Dmitruk and Alexander Prus Multidimensional structural descriptors for medical image retrieval	67
<i>Adil Alpokocak</i> Ontology-based Annotation and Retrieval System for Digital Mammography Images	73

The complete publication with all papers is soon available at the Fraunhofer Verlag. (<u>http://www.verlag.fraunhofer.de/bookshop/</u>)



