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Adaptive Multimedia Retrieval: Retrieval, User, and Semantics

5th International Workshop, AMR 2007
Paris, France, July 5-6, 2007
Revised Selected Papers

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Preface

This book is a selection of the revised contributions that were initially submitted to the International Workshop on Adaptive Multimedia Retrieval (AMR 2007). The workshop was organized at the University Pierre and Marie Curie in Paris, France, during July 5–6, 2007.

The goal of the AMR workshops is to intensify the exchange of ideas between different research communities, to provide an overview of current activities in this area and to point out connections between the diverse involved researches communities, among them the most important ones focussing on multimedia retrieval and artificial intelligence. In this spirit, the first three events were collocated with Artificial Intelligence conferences: in 2003 as a workshop of the 26th German Conference on Artificial Intelligence (KI 2003); in 2004 as part of the 16th European Conference on Artificial Intelligence (ECAI 2004) and in 2005 as part of the 19th International Joint Conference on Artificial Intelligence (IJCAI 05). Because of its success, in 2006 the University of Geneva, Switzerland, organized the workshop for the first time as a standalone event.

In 2007 the workshop revealed three main topics: retrieval, user and semantics. Retrieval, a core subject, was tackled from several perspectives. Researchers were interested not only in the efficiency of the multimedia access by looking at peer-to-peer methods, middleware and databases techniques, but also in the type of retrieved data, ranging from music to images and video. The user was also at the center of attention. Several papers investigated the different ways multimedia data can be searched, as, for instance, through navigation, summaries and interaction. Particular attention was given to methods that try to model the user and its feedback. Finally, in this set of works, it becomes clear that behind the idea of retrieval and user the notion that connects both is hidden: semantics. Most of the works try to respond, at least to a certain degree, to the inherent difficulty when retrieving multimedia data: its non-correspondence between the signal description and the conceptual meaning of the object. Researchers are developing approaches that try either to bridge this gap by, for instance, proposing cross-modal content enrichment through automatic annotation methods, or to get around the difficulty by organizing the meanings through ontologies.

This last point is today at the center of the debate and is emphasized in this book with the two invited contributions presented in the first chapter: “Learning Distance Functions for Automatic Annotation of Images” by Josip Krapac and Frédéric Jurie and “Ontology: Use and Abuse” by Simone Santini. The discussion continues in the other 18 contributions that are classified here into 7 main chapters, following rather closely the workshop’s sessions: Image Annotation, Feedback and User Modelling, Music Retrieval, Fusion, P2P and Middleware, Databases and Summarization and Ontology and Semantics. We believe that this book provides a good and conclusive overview of the current research in this area.

We would like to thank all members of the Program Committee for supporting us in the reviewing process, the workshop participants for their willingness to revise and extend their papers for this book, the sponsor for their financial support and Alfred Hofmann from Springer for his support in publishing this book.

January 2008

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