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Adaptive Multimedia Retrieval

Context, Exploration, and Fusion

8th International Workshop, AMR 2010
Linz, Austria, August 17-18, 2010
Revised Selected Papers

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Preface

This book contains a selection of the revised contributions that were initially submitted to the International Workshop on Adaptive Multimedia Retrieval (AMR 2010). The workshop was organized by the Johannes Kepler University in Linz, Austria, during August 17–18, 2010.

Since its foundation, the main goals of the AMR workshop series have been to *provide fresh perspectives on current research activities* and to *intensify the exchange of ideas* between the diverse scientific communities involved in adaptive multimedia retrieval, such as multimedia research, human-computer interaction, user modeling, personalization, and machine learning and artificial intelligence.

In this spirit, the first three events were co-located with artificial intelligence-related conferences: in 2003 as a workshop of the German Conference on Artificial Intelligence (KI), in the following year as part of the European Conference on Artificial Intelligence (ECAI 2004) and in 2005 co-located to the International Joint Conference on Artificial Intelligence (IJCAI). Because of its success, in 2006 the University of Geneva, Switzerland, organized the workshop for the first time as a stand-alone event; and since then it has been so: AMR 2007 was organized by the Laboratoire d'Informatique de Paris VI (LIP6) in France and AMR 2008 by the Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute (HHI) in Berlin. Its 2009 edition was hosted by the Universidad Nacional de Educación a Distancia (UNED), Madrid, Spain.

In the revised contributions of the 2010 workshop contained in this edition, the authors present a multitude of novel ideas around three main topics: *context*, *exploration*, and *fusion*. These trends can be observed to play an important role for various types of media, as diverse as text, images, music, and videos. In the contributions utilizing contextual information, this kind of information is predominantly used for improving personalization of search. More precisely, semantic ontologies and cross-digital library retrieval represent two upcoming topics covered. Exploration and discovery of various types of multimedia content is tackled by numerous contributions in manifold manners. They include innovative approaches to video retrieval, music research and retrieval, adaptive similarity measurement, finding, exploring, and structuring multimedia content. Therefore, the employed techniques span a wide field from semantic indexing, to content-based description, to novel ideas in query formulation. Last but not least, media fusion appears to be another emergent research trend, as witnessed by several contributions. Taking into account the user's manifold and context-dependent information needs, integration of different sources and/or results are promising strategies to alleviate limitations of unimodal approaches.

Not least due to the research focus of the organizing institution, research on adaptive music retrieval played a major role in AMR 2010. This is also reflected by an invited contribution referring to one of the workshop's keynote speeches.

Important challenges addressed by the respective contributions include elaborating serendipitous music artist recommenders as well as comprehensive investigations of the potential of similarity measures to model musical similarity as perceived by humans.

We believe that the above trends are representative and thus this book provides a good and conclusive overview of the current research in the area of adaptive multimedia retrieval. 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 sponsors for their financial help, and Alfred Hofmann from Springer for his support in the publishing process.

March 2011

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