Preface

Every year ESWC brings together researchers and practitioners dealing with different aspects of semantic technologies. Following a successful re-launch in 2010 as a multi-track conference, the 8th Extended Semantic Web Conference built on the success of the ESWC conference series initiated in 2004. Through its extended concept this series seeks to reach out to other communities and research areas, in which Web semantics play an important role, within and outside ICT, and in a truly international, not just ‘European’ context. This volume contains the papers accepted for publication in key tracks of ESWC 2011: the technical tracks including research tracks, an in-use track and two special tracks, as well as the PhD symposium and the demo track.

Semantic technologies provide machine-understandable representations of data, processes and resources — hardware, software and network infrastructure — as a foundation for the provisioning of a fundamentally new level of functionality of IT systems across application scenarios and industry sectors. Using automated reasoning services over ontologies and metadata, semantically enabled systems will be able to better interpret and process the information needs of their users, and to interact with other systems in an interoperable way. Research on semantic technologies can benefit from ideas and cross-fertilization with many other areas, including artificial intelligence, natural language processing, database and information systems, information retrieval, multimedia, distributed systems, social networks, Web engineering, and Web science. These complementarities are reflected in the outline of the technical program of ESWC 2011; in addition to the research and in-use tracks, we furthermore introduced two special tracks this year, putting particular emphasis on inter-disciplinary research topics and areas that show the potential of exciting synergies for the future. In 2011, these special tracks focused on data-driven, inductive and probabilistic approaches to managing content, and on digital libraries, respectively.

The technical program of the conference received 247 submissions, which were reviewed by the Program Committee of the corresponding tracks. Each track was coordinated by Track Chairs and installed a dedicated Program Committee. The review process included paper bidding, assessment by at least three Program Committee members, and meta-reviewing for each of the submissions that were subject to acceptance in the conference program and proceedings. In all, 57 papers were selected as a result of this process, following comparable evaluation criteria devised for all technical tracks.

The PhD symposium received 25 submissions, which were reviewed by the PhD Symposium Program Committee. Seven papers were selected for presentation at a separate track and for inclusion in the ESWC 2011 proceedings. The demo track received 19 submissions, 14 of which were accepted for demonstration.
in a dedicated session during the conference. Ten of the demo papers were also selected for inclusion in the conference proceedings.

ESWC 2011 had the pleasure and honor to welcome seven renowned keynote speakers from academia and industry, addressing a variety of exciting topics of highest relevance for the research agenda of the semantic technologies community and its impact on ICT:

– James Hendler, Tetherless World Professor of Computer and Cognitive Science and Assistant Dean for Information Technology and Web Science at Rensselaer Polytechnic Institute
– Abe Hsuan, founding partner of the law firm Irwin & Hsuan LLP
– Prasad Kantamneni, principal architect of the Eye-Tracking platform at Yahoo!
– Andraž Tori, CTO and co-founder of Zemanta
– Lars Backstrom, data scientist at Facebook
– Jure Leskovec, assistant professor of Computer Science at Stanford University
– Chris Welty, Research Scientist at the IBM T.J. Watson Research Center in New York

We would like to take the opportunity to express our gratitude to the Chairs, Program Committee members and additional reviewers of all refereed tracks, who ensured that ESWC 2011 maintained its highest standards of scientific quality. Our thanks should also reach the Organizing Committee of the conference, for their dedication and hard work in selecting and coordinating the organization of a wide array of interesting workshops, tutorials, posters and panels that completed the program of the conference. Special thanks go to the various organizations who kindly support this year’s edition of the ESWC as sponsors, to the Sponsorship Chair who coordinated these activities, and to the team around STI International who provided an excellent service in all administrative and logistic issues related to the organization of the event. Last, but not least, we would like to say thank you to the Proceedings Chair, to the development team of the EasyChair conference management system and to our publisher, Springer, for their support in the preparation of this volume and the publication of the proceedings.

May 2011

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