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The Semantic Web: Research and Applications

4th European Semantic Web Conference, ESWC 2007
Innsbruck, Austria, June 3-7, 2007
Proceedings

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Preface

The papers in this volume represent the technical program of the 4th European Semantic Web Conference, ESWC 2007, that took place June 3–7, 2007 in Innsbruck, the capital of the Tyrol region of Austria.

The ESWC series of conferences is an annual, international forum for dissemination and discussion of the latest research and applications of Semantic Web technologies. It has become a major meeting ground for researchers and practitioners in the field. ESWC is part of the European Semantic Systems Initiative (ESSI), a cluster of major European research projects aiming to improve world-wide research and standardization in the area of the Semantic Web. The ESWC 2007 topics of interest included: ontology management, ontology alignment, ontology learning and metadata generation, multimedia and Semantic Web, semantic annotation of data, Semantic Web trust, privacy, security and intellectual property rights, Semantic Web rules and query languages, logics for the Semantic Web, reasoning on the Semantic Web, behavior in the Semantic Web, searching, querying, visualizing, navigating and browsing the Semantic Web, personalization and user modelling, user interfaces and Semantic Web, Semantic Grid and middleware, Semantic Web Services, Semantic Web-based knowledge management, Semantic Web for e-business, e-culture, e-government, e-health, e-learning, e-science, database technologies for the Semantic Web, data semantics and Web semantics, semantic interoperability, semantic workflows, and Semantic Web mining.

The ESWC 2007 call for papers attracted 278 submissions of research papers, a 54% growth with respect to the previous year. Amongst these, the Program Committee selected 46 papers to be presented at the conference. The quality of the competing papers was high, and we decided to nominate two papers for the Best Paper Award:

- Minimal Deductive Systems for RDF (by Sergio Muñoz, Jorge Pérez and Claudio Gutierrez)
- Empowering Software Maintainers with Semantic Web Technologies (by René Witte, Yonggang Zhang and Jürgen Rilling).

Additionally, 10 submissions were accepted as system descriptions and 37 as posters.

Besides the presentation of the 46 technical articles in 13 sessions, one evening session with reception was devoted to the presentation and demonstration of systems and posters.

Four keynote addresses were given by distinguished scientists: Ron Brachman (VP of Worldwide Research Operations at Yahoo!, Santa Clara CA, USA), Stefano Ceri (Technical University of Milan, Italy), Georg Gottlob (Oxford University, UK), and Ning Zhong (Maebashi Institute of Technology, Japan). As with previous ESWC conferences, metadata describing the conference were

published, and during the conference developers had an opportunity to showcase their tools using these and other semantic data.

The conference also included a program of seven tutorials (selected out of ten submissions) and eight associated workshops (selected out of 13 submissions). In addition, a PhD symposium took place immediately after the conference, bringing together doctoral students within the Semantic Web community to showcase their work in a major European forum and to obtain valuable feedback from leading scientists in the field. Furthermore, the OWL-ED 2007 and DL 2007 workshops and the RR 2007 conference were co-located.

The success of this year's conference was due to the hard, voluntary work of many people. The Chairpersons who selected the tutorials, workshops, demonstrations and the PhD symposium as well as the local Organization Committee and several other central tasks are listed on the next page. Last but not least, we would like to thank the authors of all papers that were submitted to ESWC 2007, the members of the Program Committee, and the additional experts who helped with the reviewing process for contributing and ensuring the high scientific quality of ESWC 2007.

ESWC 2007 was sponsored by ESSI (European Semantic Systems Initiative, a group of European Projects known as: Knowledge Web, SUPER and Tripcom), that collectively work together to strengthen European research and industry through world-wide standardization), STI2 (Semantic Technology Institutes International), the EU Project X-Media, CEFRIEL (ICT Center of Excellence for Research, Innovation, Education and Industrial Labs Partnership, Milan, Italy), CTIC Foundation (Center for the Development of Information and Communication Technologies in Asturias), the local host DERI Innsbruck, the BIT (Bolzano – Innsbruck – Trento) Joint School for Information Technology, and the companies Asemantics, Empolis, Ontoprise, Ontotext, and Hanival (who also contributed IT services for the local organization of ESWC 2007).

We thank Springer for professional support and guidance during the preparation of these proceedings. We would also like to thank the developers of the EasyChair conference management system (`http://www.easychair.org/`). EasyChair assisted us in the whole process of collecting and reviewing papers, in interacting with authors and Program Committee members, and also in assembling this volume.

March 2007

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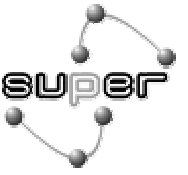
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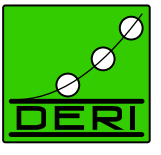
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