

Lecture Notes in Artificial Intelligence 7603

Subseries of Lecture Notes in Computer Science

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Knowledge Engineering and Knowledge Management

18th International Conference, EKAW 2012
Galway City, Ireland, October 8-12, 2012
Proceedings



Springer

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ISSN 0302-9743 e-ISSN 1611-3349
ISBN 978-3-642-33875-5 e-ISBN 978-3-642-33876-2
DOI 10.1007/978-3-642-33876-2
Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2012947926

CR Subject Classification (1998): I.2, H.4, H.3, J.1, C.2, H.2.8, H.5, D.2

LNCS Sublibrary: SL 7 – Artificial Intelligence

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Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

This volume contains the proceedings of the 18th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2012), held October 8–12, 2012 in Galway City, Ireland, 25 years after the first ‘European Knowledge Acquisition Workshop’, which took place at Reading University in the UK in 1987. We took this anniversary as an opportunity to ask ourselves what impact 25 years of research in the area had had on practical applications and we announced this year’s event under the Motto “Knowledge Engineering and Knowledge Management that Matters”. On the one hand, this motto addresses real-world applications of knowledge engineering in areas such as medicine or e-business, on the other hand, it addresses new developments on the Web that make knowledge available to a wide range of users in terms of linked open data, a development that can really have an impact on the ways people use information. In both directions, knowledge engineering faces a variety of theoretical and practical problems. These were the subject of the research discussed at the conference.

Following the motto of the conference, the event featured three invited talks and five tutorials highlighting real-world applications of knowledge engineering such as medicine, e-commerce, e-science, and content management. The invited talks are summarized below:

Martin Hepp: From Ontologies to Web Ontologies: Lessons Learned from Conceptual Modeling for the World Wide Web In this keynote talk, Martin discusses whether there is a fundamental difference between traditional ontologies and Web ontologies, and analyzes the specific economic, social, and technical challenges of building, maintaining, and using socially agreed, global data structures that are suited for the WWW at large, also with respect to the skills, expectations, and particular needs of companies and Web developers.

Michael Uschold: Building Enterprise Ontologies: Report from the Trenches Michael explores the issues and challenges that arise when building real-world enterprise ontologies for large organizations. He addresses questions like: What is the purpose of the ontology? Where do you start? What do you include? Where does the knowledge come from? Do you use an upper ontology? Which one? He looks at how to represent concepts beyond the usual people, places, and time and explores how these things impact the business.

Lee Harland: Practical Semantics in the Pharmaceutical Industry – The Open PHACTS Project Lee outlines the traditional approaches major pharmaceutical companies have taken to knowledge management and describes the business reasons why pre-competitive, cross-industry, and public-private partnerships have gained much traction in recent years. He considers the scientific challenges concerning the integration of biomedical knowledge,

highlighting the complexities in representing everyday scientific objects in computerized form leading him to the third strand, technology, and how the semantic web might lead at least someday to a long-overdue solution.

The research paper track focused more on principles and methods than on specific applications. This clearly shows that after 25 years of research, knowledge engineering is still an active field that continuously develops novel results and solutions for practical problems. The topics covered include social and cognitive aspects of knowledge representation, natural language processing, knowledge extraction and enrichment, ontology engineering and evaluation, and linked data. For the main track, we received 107 submissions, 83 of which were research papers, 10 position papers, and only 14 where explicitly submitted as in-use papers and therefore mainly focusing on a particular application. Out of these submissions, 13 papers where accepted as long and 12 as short research papers. This amounts to an acceptance rate of 15% for long papers and about 30% in total, including the short papers. In the in-use category five papers where accepted, two as long and three as short papers, equaling an acceptance rate of about 15% for long and about 40% including the short papers in this category. In addition three of the ten position papers where accepted for discussion at the conference. These numbers are in line with the acceptance policies at previous conferences continuing the tradition of balancing rigid quality control with the idea of having a community event that leaves space for discussion and exchange of ideas.

Supporting the idea of EKAW as a community event, this year's event again featured a rich side program complementing the main paper track in terms of a PhD symposium, workshops, and a poster and demo session. More specifically, the conference featured six official workshops covering topics such as knowledge extraction, ontology engineering, knowledge exploration, and applications to medical and personal data. Overall, we think that we managed to set up a very good program for EKAW 2012 and hope that all participants enjoyed the conference. We want to thank everybody who contributed to the conference including the local organization team, all members of the organizing and program committees, as well as our sponsors and the invited speakers.

August 2012

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