Lecture Notes in Artificial Intelligence 7466

Subseries of Lecture Notes in Computer Science

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Case-Based Reasoning Research and Development

20th International Conference, ICCBR 2012
Lyon, France, September 3-6, 2012
Proceedings

Springer

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ISSN 0302-9743 e-ISSN 1611-3349
ISBN 978-3-642-32985-2 e-ISBN 978-3-642-32986-9
DOI 10.1007/978-3-642-32986-9
Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2012944835

CR Subject Classification (1998):
I.2.1, I.2.3-4, I.2.6, I.2.8, I.1.11, H.3.3-5, H.2.8, H.4, H.5.3, J.1, J.3

LNCS Sublibrary: SL 7 – Artificial Intelligence

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 papers presented at ICCBR 2012: the 20th International Conference on Case-Based Reasoning (http://www.iccbr.org/iccbr12/) held September 3–6, 2012, in Lyon, France. There were 51 submissions to the conference; each was reviewed by at least three Program Committee members. The committee decided to accept 19 papers for oral presentation at the conference, following a highly selective process. An additional 13 papers were accepted for poster presentation. The program also contained two invited talks, the abstracts of which are included in this volume.

The International Conference on Case-Based Reasoning (ICCBR) is the preeminent international meeting on case-based reasoning (CBR). Previous ICCBR conferences have been held in Sesimbra, Portugal (1995), Providence, USA (1997), Seeon Monastery, Germany (1999), Vancouver, Canada (2001), Trondheim, Norway (2003), Chicago, USA (2005), Belfast, UK (2007), Seattle, USA (2009), Alessandria, Italy (2010), and most recently in Greenwich, UK (2011).

The first day of ICCBR 2012 was given over to an Introduction to CBR Development Tools involving an extensive look at the state-of-the-art tools myCBR and jCOLIBRI and products from the company Empolis that use CBR. Running in parallel on the first day was the 4th Annual Doctoral Consortium (DC) that involved presentations from 16 students in association with 19 mentors. A highlight of the DC were talks from guest speakers Agnar Aamodt and Santiago Ontañón.

The second day featured workshops on CBR in the Health Sciences, Process-Oriented CBR, and finally a workshop called TRUE: Traces for Reusing Users' Experiences — Cases, Episodes, and Stories. We would like to thank all the Cochairs of these workshops for creating such a stimulating program. The workshops were complemented with the popular full-day live Computer Cooking Contest (CCC). We would like to thank all involved with the CCC, the international jury, and the event's sponsors.

Days three and four comprised presentations and posters on technical and applied CBR papers, as well as invited talks from two distinguished scholars: Yolanda Gil, of the University of Southern California, USA, and Klaus-Dieter Althoff, of the University of Hildesheim, Germany. Yolanda Gill argued that integrating case-based reasoning techniques with scientific workflow research would result in improved approaches to workflow sharing, retrieval, and adaptation. Klaus-Dieter Althoff analyzed the relationships between CBR and expert systems using different perspectives, including problem solving, learning, competence development, and knowledge types. The presentations and posters covered a wide range of CBR topics of interest to both practitioners and researchers, including foundational issues covering case representation, similarity, retrieval, and adaptation; conversational CBR recommender systems; multi-agent collaborative systems;

data mining; time series analysis; Web applications; knowledge management; legal reasoning; healthcare systems and planning and scheduling systems.

Many people participated in making ICCBR 2012 a great success. In particular Amélie Cordier and Marie Lefevre of the University Claude Bernard, France, who served as Conference Co-chairs, with Belén Díaz-Agudo, Complutense de Madrid, Spain, and Ian Watson, University of Auckland, New Zealand, as Program Co-chairs. We would especially like to thank Luc Lamontagne, University of Laval, Canada, and Juan A. Recio García, Universidad Complutense de Madrid, for serving as Workshop Coordinators, and Mehmet Göker of SalesForce and William Cheetham of General Electric for chairing the Introduction to CBR Development Tools meeting on the first day. We wish to thank David Aha and Thomas Roth-Berghofer for organizing the valuable Doctoral Consortium and Michel Manago for chairing the Computer Cooking Contest.

We thank the Program Committee and all our additional reviewers for their thoughtful and timely participation in the paper selection process. We acknowledge the time and effort put in by the members of the Local Organizing Committee at the Lyon 1 University including: Faty Berkai, Pierre-Antoine Champin, Béatrice Fuchs, Brigitte Guyader, Marie Lefevre, Alain Mille, Sylvie Oudot, and Raafat Zarka, plus all our student volunteers.

We are very grateful for the generous support of the ICCBR 2012 sponsors: the AIJ for student bursaries in support of the doctoral consortium, and Lyon 1 University, the Computer Science Department of Lyon 1 University, and CNRS for supporting the conference in general. Finally, we appreciate the support provided by EasyChair in the management of this conference and we thank Springer for its continuing support in publishing the proceedings of ICCBR.

Finally, we would like to dedicate the proceedings of this conference to the memory of Alan Mathison Turing (1912–1954), the father of computer science and of artificial intelligence.

September 2012

Belén Díaz-Agudo
Ian Watson

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