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# Case-Based Reasoning Research and Development

24th International Conference, ICCBR 2016  
Atlanta, GA, USA, October 31 – November 2, 2016  
Proceedings

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# Preface

This volume contains the papers presented at the 24th International Conference on Case-Based Reasoning Research and Development, ICCBR 2016, held October 31 to November 2, in Atlanta, Georgia, USA.

The International Conference on Case-Based Reasoning (ICCBR) is the premier, annual meeting of the CBR community and the leading international conference on this topic. The theme for ICCBR 2016 was “Creativity.” ICCBR 2016 was co-located with the Fourth International Conference on Design and Creativity.

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), Greenwich, UK (2011), Lyon, France (2012), Saratoga Springs, USA (2013), Cork, Ireland (2014), and Frankfurt, Germany (2015).

For the 2016 conference, the published papers were carefully selected from 44 submissions from 18 countries; each was reviewed by at least three Program Committee members. The committee decided to accept 14 papers for oral presentation at the conference; an additional 15 papers were accepted for poster presentation. The 29 papers included in this book cover a wide range of CBR topics that are of interest both to researchers and practitioners, from foundations of case-based reasoning, novel retrieval and reuse approaches, advances in compositional adaptation, case generation and knowledge discovery, to CBR systems, applications, and lessons learned in specific areas of expertise.

The first day of ICCBR 2016 was given over to the selected workshops and the 8th Annual ICCBR Doctoral Consortium (DC), which is designed to nurture PhD candidates by providing them with opportunities to explore and obtain mutual feedback on their research, future work plans, and career objectives with senior CBR researchers, practitioners, and peers.

Three workshops were selected for this conference: Computational Analogy, Synergies Between CBR and Knowledge Discovery, and Reasoning About Time in CBR. We would like to thank all the co-chairs of these workshops for creating such a stimulating program.

Days two and three comprised presentations and posters on technical and applied CBR papers, as well as invited talks from two distinguished scholars: Pablo Gervás, of the Complutense University of Madrid, Spain, and Mehmet Goker, Vice President, Business Data Science Salesforce, San Francisco, USA.

Pablo Gervás’s talk, “How Creative Can Reuse Be?,” pointed to CBR as a favored technology for trying to model creative tasks such as story generation or music generation in artificial intelligence. Mehmet Goker gave an applied industry point of view of CBR in his talk entitled “The Business End of Data Science.”

Many people participated in making ICCBR 2016 a great success: Ashok Goel, Georgia Institute of Technology, USA, as the general chair; program chairs, Belén Díaz-Agudo, Universidad Complutense de Madrid, Spain, and Thomas Roth-Berghofer, School of Computing and Engineering, University of West London, UK; publicity chairs, Santiago Ontañón, Drexel University, USA and Swaroop Vattam, MIT Lincoln Labs, USA.

We wish to thank Alexandra Coman, Ohio Northern University, USA, and Stelios Kapetanakis, University of Brighton, UK, for organizing the workshop program and Sarah Jane Delaney, Dublin Institute of Technology, Ireland, and Stefania Montani, Università del Piemonte Orientale, Italy, for the successful organization of the Doctoral Consortium.

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 Georgia Institute of Technology, USA: Stephen Lee-Urban, and Elizabeth Whitaker.

We are very grateful for the generous support of the ICCBR 2016 sponsors, including the US NSF, Knexus Corporation, Springer, Georgia Tech, and Georgia Tech GVV research center. Finally, we appreciate the help provided by EasyChair in the management of this conference and we thank Springer for its continuing support in publishing the proceedings of ICCBR.

August 2016

Ashok Goel  
Belén Díaz-Agudo  
Thomas Roth-Berghofer

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