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Advances in Case-Based Reasoning

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Preface

This volume contains the papers presented at the 9th European Conference on Case-Based Reasoning (ECCBR 2008).

Case-based reasoning (CBR) is an artificial intelligence approach whereby new problems are solved by remembering, adapting and reusing solutions to a previously solved, similar problem. The collection of previously solved problems and their associated solutions is stored in the case base. New or adapted solutions are learned and updated in the case base as needed.

In remembrance of the First European Workshop on Case-Based Reasoning, which took place 15 years ago at the European Academy Otzenhausen, not far from Trier, this year's conference was especially devoted to the past, present, and future of case-based reasoning.

ECCBR and the International Conference on Case-Based Reasoning (ICCBR) alternate every year. ECCBR 2008 followed a series of seven successful European workshops previously held in Otzenhausen, Germany (1993), Chantilly, France (1994), Lausanne, Switzerland (1996), Dublin, Ireland (1998), and Trento, Italy (2000), and three European conferences in Aberdeen, UK (2002), Madrid, Spain (2004), and Ölüdeniz/Fethiye, Turkey (2006). The International Conferences on Case-Based Reasoning (ICCBR) were previously held in Sesimbra, Portugal (1995), Providence, Rhode Island, USA (1997), Seon, Germany (1999), Vancouver, Canada (2001), Trondheim, Norway (2003), Chicago, USA (2005), and Belfast, Northern Ireland (2007). These meetings have a history of attracting first-class European and international researchers and practitioners. The proceedings of the ECCBR and ICCBR conferences are published by Springer in their LNAI series.

The ECCBR 2008 conference was held at the University of Trier, Germany and offered a number of new program elements. This included the first *Computer Cooking Contest* (CCC), a CBR system competition demonstrating the application of case retrieval, adaptation, and combination methods for cooking recipes. CCC was co-organized by Mirjam Minor (University of Trier), Armin Stahl (DFKI), and Ralph Traphöner (empolis), and a professional cook was responsible for evaluating the computer generated recipes.

Furthermore, ECCBR 2008 focused on two special areas with high relevance to CBR: *The Role of CBR in the Future Internet* (chaired by Enric Plaza) and *CBR in Healthcare* (chaired by Isabelle Bichindaritz and Stefania Montani). When submitting a paper, the authors could relate their paper to one of these areas. In each focus area, the area chairs selected three papers for oral presentation.

The workshops, which took place on the first day of the conference, covered various topics of specific interest to the CBR community such as Knowledge Discovery, Similarity, Context-Awareness, Uncertainty, Health Sciences, and the

Computer Cooking Contest Workshop. The second day was the traditional Industry Day, giving insight into fielded CBR applications. It also included the Poster Session with its lively discussions. The remaining two days were devoted to invited talks and technical presentations on both theoretical and applied research in CBR as well as to the presentations related to the two special areas.

A total of 71 papers were submitted by authors from 19 different countries, not only from Europe, but also from America, Asia, and Africa. The accepted 39 papers (18 oral presentations and 21 poster presentations) were chosen based on a thorough and highly selective review process. Each paper was reviewed and discussed by at least three Program Committee members and revised according to their comments. We believe that the papers in this volume give a representative snapshot of current research and contribute to both theoretical and applied aspects of CBR research. The proceedings have been organized into three sections: invited talks (3 papers), research papers (34), and application papers (5).

The chairs would like to thank the invited speakers Isabelle Bichindaritz, Enric Plaza, Pádraig Cunningham, and Barry Smyth for their contribution to the success of this conference. While the talk of Cunningham and Smyth was explicitly devoted to the past of ECCBR, the talks of Bichindaritz and Plaza represented the respective focus areas they were chairing. Particular thanks go to the Program Committee and additional reviewers for their efforts and hard work during the reviewing and selection process.

We are also grateful for the work of the Industry Chair Ralph Traphöner, the Workshops Coordinator Martin Schaaf as well as the chairs of the respective workshops and their various committee members for their preparations for Industry Day and the workshops. We thank all the authors who submitted papers to the conference and gratefully acknowledge the generous support of the sponsors of ECCBR 2008 and their, partly long-time, sponsorship of ECCBR and ICCBR.

This volume has been produced using the EasyChair system¹. We would like to express our gratitude to its author Andrei Voronkov. Finally, we thank Springer for its continuing support in publishing this series of conference proceedings.

June 2008

Klaus-Dieter Althoff
Ralph Bergmann
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¹ <http://www.easychair.org>

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