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Web Reasoning and Rule Systems

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Proceedings

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Preface

The growth of the Web is without a doubt one the most far-reaching and transformational changes our world has witnessed in the last decades. It has put at our fingertips amounts of data that were unimaginable until just a couple of decades ago. But owing to the quantity, heterogeneity, and dynamicity of this data, making use of it raises enormous challenges. Managing and accessing Web data calls for increasingly better tools and techniques that are capable of reasoning and can infer useful information from data that may be noisy, distributed, heterogeneous, dynamic, incomplete, and inconsistent. Several successful research efforts have used rule-based systems, which allow us to represent knowledge and draw inferences from it, to overcome these challenges. Extensions and adaptations of classic rule-based languages have found their application in a range of areas like ontologies for the Semantic Web, querying Web data, semantic data management, and common-sense reasoning on the Web.

The International Conference on Web Reasoning and Rule Systems has become a major forum for discussion and dissemination of new results concerning Web reasoning and rule systems. This volume contains the proceedings of the 10th International Conference on Web Reasoning and Rule Systems (RR 2016), held during September 9–11, 2016, in Aberdeen, Scotland. The conference program included keynote talks by Abraham Bernstein, Meghyn Bienvenu, Ian Horrocks, and Leonid Libkin, covering diverse theoretical and practical topics of Web reasoning and rule systems. Extended abstracts of these talks are included in this volume.

The conference program also included presentations of 10 full research papers and three technical communications. The latter are a more concise paper format that provides the opportunity to present preliminary and ongoing work, systems, and applications that are of interest to the RR audience. The accepted papers were selected out of 17 submissions by our Program Committee (PC). This selection was based on four experts reviews (and in one exceptional case, three reviews) for each paper. We are deeply grateful to our PC members for their commitment in the process, and their efforts to provide high-quality constructive feedback to the authors.

To foster the participation and engagement of students, which is fundamental to RR and to our scientific community, RR 2016 hosted a doctoral consortium and a joint poster session, in coordination with the established co-location with the 12th edition of the Reasoning Web Summer School (RW 2016), held just before RR. The generous sponsorship of the NSF was fundamental to these events. The RR Conference and RW Summer School would like to acknowledge the support received from VisitScotland and VisitAberdeenshire, as well as from the Accenture Centre for Innovation and the K-Drive project, for which we are very grateful.

We want to thank the invited speakers for their valuable contribution, and the local organizer Jeff Pan and his team for their hard job organizing this event. We would like to thank our general chair, Umberto Straccia, as well as the doctoral consortium chair, Rafael Peñaloza, our publicity chair, Adila Alfa Krisnadhi, and our sponsorship chair,

Giorgos Stamou. As usual, EasyChair was an excellent conference management system and provided great support for the preparation of these proceedings. Last but not least, we thank all authors and participants of RR 2016, who make this event possible and are the heart of this community; we hope they had a wonderful time in Scotland.

July 2016

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