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Davide Buscaldi · Aldo Gangemi
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Semantic Web Challenges

5th SemWebEval Challenge at ESWC 2018
Heraklion, Greece, June 3–7, 2018
Revised Selected Papers

Springer

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Preface

Reproducible, evaluable, and comparable scientific research is based on common benchmarks, established evaluation procedures, comparable tasks, and public datasets. Open challenges are now a key scientific element of various conferences aimed at specific research communities. The Semantic Web research community is no exception, and the challenge track is an important element for assessing the current state of the art and for fostering the systematic comparison of contributions. Following the success of the previous years, reflected by the high number of high-quality submissions, we organized the fifth edition of the Semantic Web Challenges as an official track of the ESWC 2018 conference (held in Heraklion, Greece, during June 3–7, 2018), one of the most important international scientific events for the Semantic Web research community. The purpose of challenges is to validate the maturity of the state of the art in tasks common to the Semantic Web community and adjacent academic communities in a controlled setting of rigorous evaluation, thereby providing sound benchmarks, datasets, and evaluation approaches, which contribute to the advancement of the state of the art. This fifth edition included four challenges: Open Knowledge Extraction (OKE 2018), Semantic Sentiment Analysis (SSA 2018), Scalable Question Answering Challenge over Linked Data (SQA2018), and The Mighty Storage Challenge (MOCHA 2018). A total of 17 teams competed in the different challenges. The event attracted participants from across the conference, with a high attendance for all challenge-related activities during ESWC 2018. This included the dedicated conference track and participation of challenge candidates during the ESWC poster and demo session. The very positive feedback and resonance suggests that the ESWC challenges were a central contribution to the ESWC 2018 program.

Therefore, all the approaches and systems competing at the Semantic Web Challenge 2018 are included in this book. The book also contains the detailed description of each of the four challenges, their tasks, the evaluation procedures and the links to the scripts released to compute the evaluations, the related datasets and the URL from which to download them. The book therefore offers the community a picture of the advancements in each challenge domain releasing the material for the replication of the results.

Each chapter starts with an introductory section by the challenge chairs that contains a detailed description of their challenge tasks, the evaluation procedure, and associated datasets, and peer-reviewed descriptions of the participants' approach, comparisons, tools, and results.

The 2018 edition of the Semantic Web Challenge was truly successful and especially thanks to the hard work of the chairs of each challenge for the organization of their challenges. We also thank all the challenge participants, who provided novel systems showing great advancements in the technology they employed, which we are glad to share with the entire scientific community through this book. Moreover, we thank the organizers of the main conference, ESWC 2018, who paved the way with

researchers and professionals from industry for a cross-pollination of ideas among them. Last but not least, we would like to thank Springer for having provided several awards to the winners of the different tasks in each challenge and for promoting the Semantic Web Challenge to increase its audience and coverage.

June 2018

Davide Buscaldi
Aldo Gangemi
Diego Reforgiato Recupero

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Diego Reforgiato Recupero	University of Cagliari, Italy

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Challenges Organization

Challenge Chairs

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Diego Reforgiato Recupero	University of Cagliari, Italy

MOCHA2018: The Mighty Storage Challenge

Kleanthi Georgala	University of Leipzig, Germany
Mirko Spasić	OpenLink Software, UK
Milos Jovanovik	OpenLink Software, UK
Vassilis Papakonstantinou	Institute of Computer Science-FORTH, Greece
Claus Stadler	University of Leipzig, Germany
Michael Röder	University of Leipzig, Germany
Axel-Cyrille Ngonga Ngomo	Institute for Applied Informatics, Germany

Open Knowledge Extraction Challenge 2018

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Hyndavi Rebba	Paderbon University, Germany
Catherine Camilla Romiyo	Paderbon University, Germany

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Danish Ahmed	Paderbon University, Germany
Nikit Srivastava	Paderbon University, Germany
Mohit Mahajan	Paderbon University, Germany
Axel-Cyrille Ngonga Ngomo	Institute for Applied Informatics, Germany

The Scalable Question Answering Over Linked Data (SQA) Challenge 2018

Giulio Napolitano	Fraunhofer-Institute IAIS, Germany
Ricardo Usbeck	University of Leipzig, Germany
Axel-Cyrille Ngonga Ngomo	Institute for Applied Informatics, Germany

Semantic Sentiment Analysis Challenge 2018

Mauro Dragoni	Fondazione Bruno Kessler, Italy
Erik Cambria	Nanyang Technological University, Singapore

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