The Semantic Web challenge, 2009

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The Semantic Web Challenge\textsuperscript{1} is organized since 2003 and in the years since has developed into the premiere event for demonstrating practical progress towards achieving the vision of the Semantic Web as well as for showcasing the value of Semantic Web technologies within enterprise settings. The Semantic Web Challenge provides researchers and industry with a forum to showcase the best Semantic Web applications. The Semantic Web Challenge 2009 took place at the 8th International Semantic Web Conference (ISWC 2009) near Washington, DC. As in the previous year, the challenge consisted of two tracks: the Open Track and the Billion Triples Track. The Open Track requires that the applications utilize the semantics (meaning) of data and that they are designed to operate in an open Web environment, whilst the Billion Triples Track focuses on dealing with very large amounts of RDF data, which has been crawled from the Web and thus exhibits characteristics like vocabulary heterogeneity and varying data quality. For the 2009 challenge, we provided the participants of the Billion Triples Track with a RDF data set consisting of 1.1 billion triples.

Altogether we received 20 submissions for the Semantic Web Challenge 2009 (17 for the Open Track and 3 for the Billion Triples Track). A jury consisting of eleven experts from both academia and industry evaluated the submissions before and at the conference and after a three step evaluation process awarded prizes to the four best applications. In this issue we present articles about the winning systems: The three winners of the Open Track and the winner of the Billion Triple Challenge.

The winners of the Open Track were Chintan Patel, Sharib Khan, and Karthik Gomadam from Applied Informatics, Inc with their application TrialX. TrialX enables finding new treatments by intelligently matching patients to clinical trials using advanced medical ontologies to combine several electronic health records with user generated information. The second prize

\textsuperscript{1} http://challenge.semanticweb.org
was awarded to Andreas Harth from the Institute of Applied Informatics and Formal Description Methods, Universität Karlsruhe, Germany for the Semantic Web search engine VisiNav. The application enables end-users to ask complex queries against a large corpus of Web data and offers an innovative user interface for the explorative formulation of queries. The third prize in Open Track was awarded to Giovanni Tummarello, Richard Cyganiak, Michele Catasta, Szymon Danielczyk, and Stefan Decker from the Digital Enterprise Research Institute, Ireland for the development of Sig.ma, a Semantic Web Search engine which integrates and merges data about entities from a large, open set of Web data sources. A very innovative aspect of the application are the methods that it provides to its users for dealing with the information quality challenges that arise in the open Web setting. The Billion Triples Track was won by Scalable Reduction by Gregory Todd Williams, Jesse Weaver, Medha Atre, and James Hendler from the Rensselaer Polytechnic Institute, USA. The entry showed how massive parallelization can be applied to quickly clean and filter large amounts of RDF data. These four papers demonstrate the diversity of ways that Semantic Web data can be used, and represent some of the best applications developed in the research community. Again, congratulation to the winners!

We would like to thank all members of the jury for their extraordinary commitment and their detailed judgment of the strengths and weaknesses of the submitted applications. Special thanks also go to the sponsor of the Semantic Web Challenge – Elsevier – for their long-standing support.

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