Preface

With only a few years, the rapidly developing Web has led to revolutionary changes in the whole of human society. The Semantic Web is the next generation of Web. It provides a common framework that allows data to be shared and reused across applications, enterprises, and community boundaries. Semantic Web technology facilitates building a large-scale Web of machine-readable knowledge that allows for data reuse and integration. Nowadays, many scholars and experts are devoting themselves to the work of applying the Semantic Web theories into specific practice, while in turn improving the Semantic Web theories and techniques according to the demand in practice. Web Science involves the full scope of Web-related applications, integrating all directions of Web-related interdisciplinary research into a new field. The jointly held Chinese Semantic Web Symposium and Chinese Web Science Conference aim to promote expansions from the Semantic Web to Web Science, and to discuss the core technology on the Next Generation Web, including swarm intelligence, semantic search, Web security, natural language processing (NLP), etc.

Following the success of the Seventh Chinese Semantic Web Symposium and the Second Chinese Web Science Conference in Shanghai, China, we organized the Eighth Chinese Semantic Web and Web Science Conference (CSWS 2014) in Wuhan, China. The theme of CSWS 2014 was “Semantics and Big Data.” A summer school of three days was organized before the main conference. On the first day, an expert in semantic search, Dr. Haofen Wang, from East China University of Science and Technology, gave lectures on semantic search on linked data. In the morning session of the second day, an expert from Tonglian Data Company, Dr. Long Jiang, gave lectures on algorithms for matching and ranking Internet advertisements. In the afternoon section of the second day, an expert from Baidu Company, Dr. Yanjun Ma, gave a talk on deep question and answering and its application to search. In the morning session of the last day, an expert in Big Data, Prof. Ping Li, from Rutgers University, USA, gave a tutorial titled “Big Data: Hashing Algorithms for Large-Scale Search, Learning, and Compressed Sensing.” In the afternoon section of the last day, Dr. Guohui Xiao from Free University of Bozen-Bolzano, Italy and Dr. Dafu Deng from Tengxun Company, gave talks on ontology-based data access and on big data-based game marketing reformation, respectively.

This volume contains the papers presented at CSWS 2014. The conference received 61 submissions. Each submission was assigned to at least three Program Committee (PC) members to review. After a rigorous reviewing process, 22 research papers were selected for publication in the proceedings, and seven research papers were selected for publication in the Journal of Southeast University (Chinese Edition) and Journal of Wuhan University (Natural Science Chinese Edition). These submissions cover a wide range of topics, including Ontology Reasoning and Learning, Semantic Data Generation and Management, Semantic Technology Applications, etc.
We would like to thank the excellent work of the PC. Each PC member was assigned three to four papers to review and their timely and professional reviews were helpful for us to select submissions of high quality. We also thank everyone who was involved in organizing the conference, especially Prof. Guilin Qi, Prof. Jinguang Gu, Prof. Siwei Yu, Prof. Donghong Ji, Prof. Jeff Z. Pan, Prof. Huajun Chen, Prof. Zhiqiang Gao, Prof. Jie Tang, Prof. Wei Hu, and Prof. Zhichun Wang.

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