Editorial

This special issue of the *Journal of Web Semantics* is composed of revised and extended versions of some of the best papers presented at the Semantic Web track of WWW 2007 held at Banff, Canada, May 8-12, 2007. We received 114 submissions and accepted 16 for presentation. We co-chairs found the quality of the 16 papers very high and were happy to have been able to arrange five exciting sessions on ontologies, similarity and extraction, query languages and databases, Semantic Web and Web 2.0 and applications. The special issue contains three best papers among the 16 accepted papers. One from the ontology session, one from the query languages and databases session and one from the applications session. Let us briefly introduce each of them.

The first paper is “Syndication on the Web using a Description Logic Approach”. Syndication plays a critical role in connecting information publishers and consumers on the WWW. To make the connection more efficient and effective, a more powerful approach is needed for matching the information needs of the consumers with the content that is offered by the publishers. This paper proposes a new syndication method using the Web Ontology Language OWL which enables a more fine grained selection of relevant information. A novel matching approach is offered on incremental query answering. The proposed method is a natural extension of the current RSS1.0 syndication.

The second paper is “ActiveRDF: embedding Semantic Web data into object-oriented languages”. The success of database-driven applications relies heavily on the efficient access to relational and object-oriented data. Since the data model of the Semantic Web is different from the conventional data model of databases, Semantic Web applications need different ways to access and manipulate the data represented in the Semantic Web standards. ActiveRDF enables such applications to access and manipulate Semantic Web data in an efficient way. It is based on a thorough investigation of the mismatches between Semantic Web data and object-oriented data representations. Example applications exploiting ActiveRDF show the usefulness of the developed approach.

The third paper is “Yago: A Large Ontology from Wikipedia and WordNet”. In the Semantic Web, everything needs to scale. Ontologies are no exception, of course. However, large ontologies tend to be of low quality. Yago is a large-scale ontology consisting of 1.7 million entities and 15 million facts about them and was automatically built from Wikipedia and WordNet. Unlike other ontologies that have been generated automatically, Yago manages to achieve high quality. This is why Yago is expected to make considerable contribution to the development of Semantic Web applications.

We, co-editors, would be happy if readers enjoy this special issue and find it informative for their research as well as for developing Semantic Web applications.

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