

1st Int'l Workshop on
Data Engineering meets the Semantic Web (DESWeb2010)

(Towards semantic-based data engineering for the Web)

Co-located with ICDE 2010

<http://DESWeb2010.unimore.it>

Modern web applications like Wiki's, social networking sites and mashups, are radically changing the nature of modern Web from a publishing-only environment into a vibrant place for information exchange. The successful exploitation of this information largely depends on the ability to successfully communicate the data semantics, which is exactly the vision of the Semantic Web. In this context, new challenges emerge for semantic-aware data management systems.

The contribution of the data management community in the Semantic Web effort is fundamental. RDF has already been adopted as the representation model and exchange format for the semantics of the data on the Web. Although, until recently, RDF had not received considerable attention, the recent publication in RDF format of large ontologies with millions of entities from sites like Yahoo! and Wikipedia, the huge amounts of microformats in RDF from life science organizations, and the gigantic RDF bibliographic annotations from publishers, have made clear the need for advanced management techniques for RDF data.

On the other hand, traditional data management techniques have a lot to gain by incorporating semantic information into their frameworks. Existing data integration, exchange and query solutions are typically based on the actual data values stored in the repositories, and not on the semantics of these values. Incorporation of semantics in the data management process improves query accuracy, and permit more efficient and effective sharing and distribution services. Integration of new content, on-the-fly generation of mappings, queries on loosely structured data, keyword searching on structured data repositories, and entity identification, are some of the areas that can benefit from the presence of semantic knowledge alongside the data.

The goal of DESWeb is to bring together researchers and practitioners from both fields of Data Management and Semantic Web. It aims at investigating the new challenges that Semantic Web technologies have introduced and new ways through which these technologies can improve existing data management solutions. Furthermore, it intends to study what data management systems and technologies can offer in order to improve the scalability and performance of Semantic Web applications.

Topics of Interest

DESWeb welcomes papers on topics related, but not limited, to:

Semantic Data Integration:

- Semantic-aware matching and mapping
- Management of incomplete information on the Semantic Web
- Dataspaces and the Semantic Web
- Semantic-aware search engines
- Role of ontologies in data integration and data exchange
- Semantic-based keyword searching in databases
- Probabilistic data and query answering
- Data Management for Social Networking
- Semantic-based lifecycle management
- Database support for social Web2.0 applications

- Entity identification on the Semantic Web
- Tool support for developing and deploying data intensive Semantic Web applications
- Publishing relational data on the Semantic Web
- Semantic annotation
- Semantic evolution
- Understanding and managing Wiki/Blog data
- Semantic Web technologies for cooperation and collaboration
- Business processes on the Semantic Web
- Semantic-based service discovery and composition
- Interoperation via Semantic Web services
- Query languages for RDF and the Semantic Web
- Multimedia management on the Semantic Web

Core Database Technologies for RDF Data:

- Data models and query languages for RDF
- RDF querying processing and optimization
- Indexing and access methods for RDF data
- RDF storage and compression
- Update management and maintenance of RDF data
- Query answering techniques on RDF databases
- Benchmarking RDF Systems and applications

Submission Guidelines

Authors are invited to submit original, unpublished research papers that are not being considered for publication in any other forum. Papers should be submitted electronically as PDF files, be formatted according to the standard ICDE format and be at most 6 pages in length.

All accepted papers will be published in the ICDE proceedings and will also become publicly available in IEEE Xplore.

Papers should be submitted at the following web site:

<https://cmt.research.microsoft.com/DESWeb2010>

Important dates

- Submission deadline: Nov 15th, 2009
- Notification to authors: Dec 22nd, 2009
- Camera Ready version: Jan 5th 2010

Workshop Chairs

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- Yannis Velegarakis, University of Trento

Panel Chair

- Sonia Bergamaschi, University of Modena and Reggio Emilia

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- Cong Yu, Yahoo!, USA