This special issue of the *International Journal of Information Technology and Web Engineering* (IJITWE) includes manuscripts of some of the presentations at the Second International Conference on Semantic Web – Services and Applications (ISWSA 2011), held in Faculty of Information Technology, Isra University, Amman, Jordan, from April 18 to April 20, 2011.

This editorial summarizes some current trends in the Semantic Web such as semantic services and applications, and explores one key area of growth: Semantic Web. To illustrate the role of Web Applications and Web Services in the growth of semantic service industries, an example focusing on the learning, government and security are used. Recommendations for future areas of research are presented.

After the fabulous success in ISWSA 2010, ISWSA series builds on the last two years’ successful events and brings together academics and practitioners in the fields of semantic web and web applications.

Various automated services will help the users to achieve their goals by accessing and processing information in machine-understandable form. This network of knowledge systems will ultimately lead to truly intelligent systems, which will be employed for various complex decision-making tasks.

Semantic Web research can benefit from ideas and cross-fertilization with many other areas: Artificial Intelligence, Natural Language Processing, Databases and Information Systems, Information Retrieval, Multimedia, Distributed Systems, Social Networks and Web Engineering. Many advances within these areas can contribute towards the realization of the Semantic Web.

ISWSA 2011 is a peer reviewed conference that publishes good contributions about the semantic web and web applications area. The topics covered in this special issue include: Data Semantics and Ontologies, Applications of the Semantic Web, Social Semantic Web and Web Applications.

We are delighted that this conference, being held at Isra University, includes participation by professionals from 11 countries, presenting 18 papers, together with 3 key-note speakers who will look at the academia’s responsibility to acknowledge the semantic groups and labs over world.

The first keynote speaker was Dr. Auer. He is a senior scientist and head of the research group Agile Knowledge Engineering and Semantic Web at InfAI and Business Information Systems / University of Leipzig. Director of academic studies at Leipzig School.
of Media for the master studies Content- and Media-Engineering. His Presentation title: “The emerging Web of Linked Data”.

The second keynote speaker was Dr. Jarrar. He has recently joint Birzeit University, as an assistant professor of Computer Science. He spent most of his academic career as a Senior Research Scientist in Belgium (STARLab, Vrije Universiteit Brussel), where he also completed his Masters (2000) and PhD (early 2005). He left STARLab in Oct. 2007, as he had been granted the Experienced Marie Curie Fellowship at the University of Cyprus (2007-2009). His speech was “Arabic Ontology Engineering-Challenges and Opportunities”.

The third one was Dr. Bouquet is an Associate Professor in Computer Science at the Management School of the University of Trento, he is president and co-founder of the startup company OKKAM s.r.l. Also he is a member of the Governing Board (Consiglio di Amministrazione) of Semantic Valley consortium, the first cluster of the Trentino ICT district. Moreover, he is a coordinator of the initiative Trentino Open Data. His speech title was “The entity-centric web: a 6th star for open data on the web”.

For the second time, ISWSA 2011 proceedings is published in the ACM Digital Library. The ISWSA series proceedings are indexed by Ulrichs Periodicals Directory. Moreover, the International Journal of Information Technology and Web Engineering is the journal sponsor for ISWSA 2011.

Looking at each trend also highlights future research topics. For example, to take advantage of Web industries and semantics, practitioners and governments need to further develop web applications and services and continue to invest in research and development. Metrics are needed to measure the impacts of these investments. How should organizations build trust to achieve collaborative applications and services? What are the legal implications of collaborative semantic commerce, learning and government?

A summary of the recommendations of this special issue is:

- Importance of the transition from traditional to semantic web in the sense that interested. Where should the software that you know the meaning and significance of the data on the Web and search engines.
- Developing strategies and solutions to the problem of research by linking traditional relationships and concepts that facilitate access to information in the global search engines. For example:
  - Applications with clear lessons learned or evaluations
  - Semantic Web for large scale applications
  - Semantic Web for desktops or personal information management
  - Semantic Web technologies for multimedia, sensors, and situational awareness
  - Semantic Web technologies for P2P, services, agents, grids and middleware
  - Semantic Web technologies for software and systems engineering
  - E-government
  - Mobile Semantic Web
  - Database, IR and AI technologies for the Semantic Web
  - Search, query, integration, and analysis on the Semantic Web
  - Social networks and processes on the Semantic Web
  - Semantic Web technologies for collaboration and cooperation
  - Representing and reasoning about trust, privacy, and security
  - Cloud computing techniques and approaches
  - Frameworks for developing Web applications
  - Security issues for Web applications
  - Management techniques for large-scale Web applications
  - Scalability issues and techniques
  - Techniques for creating highly interactive Web applications
  - Applications that illustrate interesting new features or implementation techniques
• Performance measurements of Web applications
• Web services
• M-commerce applications, issues, and security

It must be aware that the Web has become the primary source of information and for all data types.
• Clarifying the risks of Web applications and how to deal with security problems.
• Identifying specific factors that help to raise the quality of web services and web sites for various sectors.

On behalf of the conference committees, I would like to thank Isra University for their generous support, the speakers and session chairs for their time and effort, and the author for their contribution to an excellent program. Finally, I would like to thank our colleagues in the organizing committee for all their hard work in helping make this event a success.

Shadi Aljawarneh
Guest Editor
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