GUEST EDITORIAL PREFACE

Special Issue on Semantic and Web Technologies

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The Fourth edition of the *International Conference on Web and Information Technologies* (ICWIT' 2012) held in Sidi Bel Abbes, Algeria in April 2012. ICWIT 2012 Conference aims to synergistically connect the research community and industry practitioners. It provides a forum for research community and industry practitioners to present their latest findings in theoretical foundations current methodologies and practical experiences. ICWIT' 2012 focuses on new research directions and emerging applications in Web and Information Technologies. The submitted contributions address challenging issues of Web Technologies, Web Security, Information Systems, Ontology Engineering and Wireless Communications.

This special issue Special Issue on Semantic and Web Technologies of the *International Journal of Information Technology and Web Engineering* (IJITWE) contains extended papers selected from the 4th edition of the *International Conference on Web and Information Technologies*.

In the first paper 'Enabling semantic mediation in DaaS composition: Service-based and context-driven approach', Idir Amine Amarouche et al., present a service-based and context driven approach for automatically handling semantic conflict in DaaS composition. The semantic conflict resolution is ensured through a mediation services which can seamlessly be integrated into existing DaaS composition. Indeed, a two-layer ontology has been proposed (Domain Ontology and Conflicting Aspect Ontology) to extend the DaaS model and to define a mediation services. The proposed context model expressed over Conflicting Aspect Ontology aims to handle semantic conflict in DaaS composition. This model allows specifying the mediation service as mapping rule performing transformation of DaaS parameters from one context to another.

Next, the second paper 'Semantic Cloud: Building Dynamic Mashup in Cloud Environment', Abdelhamid Malki et al., proposes a reference architecture with six layers representing the main functional blocks for annotating, combining and deploying Web APIs in Cloud environment. The SAWADL (Semantic Annotation for Web Application Description Language)

that is an extension of the WADL language that allows the semantization of the REST Web Service is introduced. The proposed architecture uses the Cloud Computing technology as a promising solution to increase the number of public API and therefore making the engineering process of Mashup applications more agile and more flexible.

Fouad Henni and Baghdad Atmani in the third paper 'Applying CBR over an AI Planner for Dynamic Web Service Composition', present an approach to dynamically produce composite services. It is based on the use of two AI techniques: Case-Based Reasoning and AI planning. A planner is used to generate dynamically a new composition plan from scratch. However, plan generation algorithms are known to be time consuming. So CBR is used as a way to memorize past experiences in order to reuse or adapt a previous successful composition solution to solve an actual user query.

The fourth paper 'Geo-Multi-Agent System Based Webmapping Approach Using Multiple Representation and Generalisation driven by domain ontology' further discusses the topic of webmapping. In this case, Khalissa Derbal Amieur et al propose a Webmapping approach organized into two main tasks: query analysis driven by domain ontology in analyzing a query launched by a user on a web browser and map generation process. The first step allows extracting and formalizing user needs through two map determinants factors: the Level of Detail (LoD) and Point of View(PoV) and the second exploit an hybrid approach "Multi Representation and Generalization" in storing and generating geographical data with integrating Multi-Agent technology in all steps of processing.

Lastly, in the paper 'A Query Approximating Approach over RDF Graphs', Ala Djeddai et al. propose a novel approximate querying approach based on meaning similarity centering on WordNet. This new method allows finding in RDF graphs the set of paths matching the query paths using the proposed approximation. The answers are a set of sub graphs generated from the discovered RDF paths and ranked in decreasing order of its degree of matching.

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