

## GUEST EDITORIAL PREFACE

# Foreword Web2Touch: Living Experience Through the Web

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The Web2Touch workshops were started in 2007 with the intent to connect researchers from different domains who share a multidisciplinary view of the web and to demonstrate the full potential of the web as a live medium for sharing and collaboration. By joining their complimentary views, researchers have demonstrated that it is now possible to exchange different concepts for designing solutions based on similar problems spread over various disciplines such as life sciences, grid and interoperable computations or education. Consequently, the contributions we have seen during the last 4 years have shown how it is now possible, via intelligent and cooperative use of the web, to solve problems involving technical, semantic and organizational aspects. While we have reviewed papers addressing a wide range of technical topics, the papers we have selected for this introductory issue represent the state of the art and will present new works concerning semantic web technologies, a novel collaborative web browsing proposal, and an approach relying on intentional process modeling and semantic web technologies and models. In general the Web2Touch workshop's goal was to examine how technologies like web services and knowledge engineering, to

mention just a few, can improve the usability of the web for non-experienced users. Several papers have shown practical use cases in various domains, with a prevalence in the areas of medicine, biology, and education, which are probably due to the sensibility of people involved in these areas and their increasing need for collaborative technology.

To summarize, 18 papers were submitted to the Web2Touch 2008 and W2T 2009 workshops. Web2Touch 2008 was hosted by the *2008 IEEE 11th International Conference on Computational Science and Engineering (CSE 2008)* while in 2009 the Web2Touch workshop was hosted by the *IEEE/WIC/ACM International Conference on Web Intelligence*. From these 18 papers, we narrowed our selection to the following three papers.

The paper "*A Reference Ontology Based Approach for Service Oriented Semantic Interoperability*" by Shuying Wang, Kevin P. Brown, Jinghui Lu, Miriam A.M. Capretz considers ontologies and how they are becoming more and more popular and usable. This paper demonstrated how one could establish effective information exchange among applications in a distributed environment, having participants not only sharing their functions,

but also through data models. Ontologies are proposed as a practical and usable means to allow applications to locate and integrate their internal models. A reference ontology is proposed coupled with service-oriented ontology management. The selected domain is an industrial domain where the implemented prototype has been measured for practical use. Furthermore, the prototype system shows how the ontology has been deployed and can be browsed and mapped into operations using a service-oriented system. The described experiments provide a hint promising results concerning the possibility to actually manage and optimize ontology in real environments through automatic mapping facilities.

The paper “*Lightweight Collaborative Web Browsing*” by Raphael O. Santos, Felipe F. Oliveira, Roberta L. Gomes, Magnos Martinello, and Renata S. S. Guizzardi presents a co-browser named OCEAN that offers additional important functionalities related to a lightweight architecture for communication and the maintenance of collaborative sessions. The paper worthiness is in the discussion of the advantages of this approach, which concerns the introduction of document annotation facilities. These new tools are becoming fundamental in helping users expressing thoughts and reflections and can enhance the focus of attendees during presentations and oral illustrations. For example, when accessing online lecture materials, text notes and illustrations added to the content can help students remember the key points of that lecture or even promote new discussions. This paper also impacts the e-learning web domain, which has been a hot topic in the Web2Touch workshops. Additionally, this paper presents a solution through the use of an ontology regarding the collaboration domain, and through a common vocabulary used to optimize the OCEAN conceptualization process.

Finally, the paper “*Improving Collaborations in the Neuroscientist Community*” by Isabelle Mirbel and Pierre Crescenzo proposes SATIS, an approach to specify high-level

business-oriented activities with the help of an intentional model and to derive web services specification from high-level descriptions. The domain where these ideas have been studied and tested is in the neurosciences. The aim is to improve collaboration and sharing inside medical doctors communities, providing means to annotate high-level intentional specification in order to assist the retrieval and sharing of data among a community of neuroscientists. In order to support different collaboration means the proposed approach utilizes well-known standards. For example, for improved usability they examine map formalism. For identifying and specifying high-level intentional specifications, the W3C standards RDF, RDFS and SPARQL are used to define a common vocabulary, to annotate web services and intentions, and to query the intention library as well as the service registry. Through these means it is also possible to reason about concepts and models.

In closing, we are very satisfied with the quality of the papers presented during the Web2Touch workshops over the last few years. This is especially true for the 2010 meeting which took place in Tozeur and whose results will be considered for further Journal issues. We have observed that the topic, while being important and relevant for all IT specialists, is also attractive for non-IT scientists who try to apply new technologies to relevant problems.

We thank the members of the joint program committee and additional reviewers for their hard work on selecting the best papers to be included in these proceedings. We also thank the IJWP staff for the opportunity to publish these papers in the journal and for the work carried out to prepare and edit the papers with professionalism and enthusiasm.

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