

# IEEE IC Special Issue on "Semantic-based Knowledge Management" September 2007

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## ***Guest Editors***

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## ***Call for Papers***

The IEEE Internet Computing Magazine seeks original manuscripts for a Special Issue on "*Semantic-based Knowledge Management*" scheduled to appear in September/October 2007.

The role of semantics for information integration and analysis has been studied for a long time. In the context of the recent activity in the Semantic Web, the availability of methodologies and tools for ontology development has allowed knowledge representation to make practical inroads through successful development of large numbers of domain ontologies. Use of ontologies to develop new classes of semantic applications is particularly evident in the fields of life sciences, health care, government and technology-intensive sectors. Increasing adoption of W3C recommendations such as RDF, and to a lesser extent OWL, has allowed emerging as well as mainstream industry to bring new tools and products, as exemplified by RDF support by Oracle.

As semantic technologies prove their value with targeted applications, there are increasing opportunities to consider their application in business enablers. Knowledge management has been accepted as a critical enabler aiming to increase organisational performance by better use of intellectual assets, in addition to which many businesses are forced to increasingly deal with knowledge services that form larger parts of the global economy. Thus there are recent examples of applications of semantics for empowering knowledge management or better supporting knowledge services. The special issue aims at communicating and disseminating recent research and success stories that bring the power of semantics to improve upon traditional knowledge management approaches, or realize emerging requirements of knowledge services. In the context of knowledge management and services, organizational and human issues are of equal if not higher importance than the technical issues that have tended to receive the bulk of attention in the past. Consequently, papers that touch these aspects, or those that extend technical and domain knowledge to services or organizational and people issues are especially sought. This is intended to initiate a dialog between the organizational, human and technical views of the field. This special

issue seeks participation from both industry and academia. Special attention will be paid to papers that discuss issues related to wider commercial acceptance of semantic technology including the issues of business models and ROI.

#### **Topics:**

Topics include, but are not limited to, the following:

- Use of Semantics in Knowledge Services and Service Science (where the technical, human and organizational aspects of services are considered)
- Engineering of ontologies for Knowledge Management and Services
- Architectures, Algorithms and representations for Semantic Web approaches to Organizational Information Systems
- Organizational knowledge integration or organizing domain knowledge using ontologies, semantic metadata and other semantic capabilities
- Design and modelling of Semantic Web Resource or Service repositories and distributed knowledge-based systems in the organizational context
- Business Modelling and Business processes as mediated by Semantic technology with support for technical, human and organizational components
- Ontologies related to organizational and people/participants, including competencies and competency description standards and schemas, and their application to organizational memory and organizational learning, and productivity or collaboration enhancements
- Practical frameworks of organizational value as associated to Semantic Web technology
- Semantic Technology in the framework of organizational learning and organizational behaviour.
- Use of semantic technology to enhance knowledge access and re-use
- Use of semantic technology to promote knowledge sharing and collaboration

#### ***Important Dates***

<b>January, 1<sup>st</sup> 2007</b>	Submission of abstracts / contact with Guest Editors
<b>January, 15<sup>th</sup> 2007</b>	Submission on Articles through Manuscript central. Notification to authors
<b>September/October 2007</b>	Publication

#### ***Style and Author Guidelines***

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them by clicking on <http://www.computer.org/portal/pages/internet/content/author.html>

Please thoroughly read these before submitting your manuscript.