



# Call for Chapter Contributions

## Semantic Agent Systems: Foundations and Applications

(Edited Book by Springer-Verlag)

Integrating agent and semantic Web technologies in order to extend the ability of programs have long been hailed as the most efficient way to serve users. The idea is to significantly affect performance of application software employing cooperating multi-agent systems through the use of semantic Web services and domain ontologies. The Semantic Web has matured to a great extent with ontology-based applications being built by several major enterprises. However, research and development concerned with the integration of the semantic Web and software agent technologies are moving at snail's pace. To bring our contribution, we initiated around November 2005, the series of IEEE International Workshop on Engineering Semantic Agent Systems in conjunction with the 30<sup>th</sup> International Computer Software and Applications Conference (COMPSAC 2006) in Chicago, Illinois, USA. After four annual workshops, preparing to announce the fifth, and two journal special issues on this theme, we are soliciting contributions from research experts and practitioners for an edited volume in the series "*Studies in Computational Intelligence*" (<http://www.springer.com/series/7092>) by Springer-Verlag.

**Topics of Interest:** Possible topics for the book include:

- Principles and methodologies for semantic agent systems;
- Foundations, theories and models of semantic agent systems;
- Semantic-based autonomous and multi-agent architectures;
- Agent communication languages and protocols with semantics;
- Frameworks and environments for semantic agents systems;
- Ontology development (modeling, versioning, repository) for agent systems
- Ontology management (mapping, merging, alignment) for agents systems;
- Semantic technologies, decision making, communications for agent systems
- Languages, logics, tools and methodologies for semantic agent systems;
- Semantics related agent-oriented software engineering;
- Semantic agents systems for collaboration and cooperation;
- Semantic agent systems for (including but not limited to):
  - - Mission-critical systems, enterprise information systems, social networks,
  - - E-government, e-commerce, e-business, e-health, life sciences,
  - - Multimedia, man-machine interfaces of software application systems;
  - - Semantic robotics: design, implementation, and application case studies;
  - - Security & privacy issues in semantic agent systems.
- Information visualization for agent systems with semantic Web techniques;
- Applications of semantic agents systems with pertinent lessons learned.

**Proposal submission:** We welcome original high quality contributions on the theme of *Semantic Agent Systems* along the aspects of *foundation, theory, models, engineering, and applications*. Substantially revised and extended versions of papers presented at conferences and workshops are also encouraged provided that the new content exceeds 50% of the paper. A 2-page chapter proposal may be uploaded to the submission site (<https://cmt.research.microsoft.com/SASFA2010/>) as soon as possible. Authors will be notified of the outcome within two weeks. Draft and final proposals of about **twenty pages** must conform to *Springer's Instructions for Authors* (<http://www.springer.com/series/7092?detailsPage=contentItemPage&CIPageCounter=149813>).

**Important Dates:**

Chapter Submission Deadline: **May 30, 2010 (final & firm)**

Completion of First-Round Reviews: **July 15, 2010**

Revised Chapters Due: **August 5, 2010**

Final Publication Materials Due: **August 20, 2010**

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