

Special Issue on: “Interaction between Agents and Data Mining”

▼ Guest Editors:

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In the last decade, agents and data mining have emerged as two of most vivacious areas in information technology field. The nature and complementarity of both areas foreshows an emergent trend that is the increasing interaction between agents and data mining. As a result, both sides obtain great enhancement in terms of solving existing individual challenges and innovating new research and development opportunities. The Interaction will greatly strengthen the progress of each side, and trigger new R&D challenges and prospects towards the advancements of next-generation intelligent technologies and systems as well as the enrichment of integrated intelligence and other emergent aspects.

Aiming at promoting this emergent and promising area, we have had two international workshops, International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (AIS-ADM2005, Proceedings by Springer Press, <http://space.iias.spb.su/ais05/>), and IEEE/ACM/WIC International Workshop on Interaction between Agents and Data Mining (IADM2006/ADMI2006, Proceedings by IEEE Computer Society Press, <http://datamining.it.uts.edu.au/iadm.htm>). The next event will be AIS-ADM2007 (<http://space.iias.spb.su/ais07/>).

This special issue, *Interaction between Agents and Data Mining*, as the earliest in the world on this critical topic, targets to encourage the interaction between agents and data mining towards mutual enhancement and super-intelligent synergism. It will bring together researchers and industry practitioners from both areas to share the results of R&D and discuss existing and emerging theoretical and applied problems in the interaction and evolution between agents and data mining.

▼ Subject Coverage

* Interaction Challenges and Prospects

- Challenges and prospects of agent and data mining interaction,
- Theoretical foundation for interaction between agents and data mining
- Building super-intelligent organism
- Metasynthetic engineering of agents and data mining
- Surveys and lessons learnt

* Agent-Enriched Knowledge Discovery and Data Mining

- Agent-based next-generation KDD infrastructure
- Agent-based meta-knowledge discovery and representation
- Agent-enriched interactive data mining
- Agent-enriched human mining cooperation
- Agent-enriched data mining process and management
- Agent-enriched constrained data mining
- Agent-enriched parallel data mining
- Agent-enriched multiple data source mining
- Agent-enriched link mining
- Agent-enriched distributed data mining
- Agent-enriched grid computing
- Agent-enriched web mining
- Agent-enriched mediation and management of enterprise data mining
- Agent-enriched ontology mining
- Agent-human-cooperated data mining
- Agent networks in distributed knowledge discovery and servicing
- Agent service-based KDD infrastructure
- Agent-supported domain knowledge involvement in KDD
- Agent-supported software tools for KDD
- Automated data mining learning
- Ontological engineering in agent-based KDD infrastructure
- Protocols for agent-based data mining systems
- Self-organizing data mining learning

- * Data Mining Driven Agent Intelligence Enhancement
 - Data mining-driven agent intelligence enhancement
 - Data mining-driven agent learning, adaptation and evolution
 - Data mining-driven multi-agent communication, planning and dispatching
 - Data mining-driven user modeling
 - Data mining-driven user servicing
 - Data mining-driven trading agents
 - Distributed learning in multi-agent systems
 - Distributed learning in agent coordination
 - Emergent agent organization and behavior
 - Self-organized agents and agent systems
 - Self-learning agents and agent systems

- * Emerging Intelligent Applications and Systems
 - Agent service-based data mining infrastructure
 - Data mining-driven web agent assistant
 - Data mining-driven agent recommenders
 - Mobile agent-driven web recommenders
 - Typical engineering and industry applications
 - Case studies

▼ **Important Dates**

Manuscript due: *Nov 30, 2006*

Notification: *Jan 31, 2007*

Final manuscript due: *Mar 31, 2007*

▼ **Notes for Intending Authors**

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To submit a paper, please go to *Submission of Papers*. This is our preferred route for submitting papers; please use it if at all possible. However, if you experience any problems submitting papers in this way, an alternative route is suggested below.

▼ **Editors and Notes**

As an alternative to using the *Submission of Papers* site, you may send one copy in the form of a PDF file attached to an e-mail (details in Author Guidelines) to the following:

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