

# Call for papers for a RIA Special Issue on: Agent Based Social Simulation

**Submission deadline: 01-08-2010**

## **THEMES**

Simulation of human psychological, economical and social behaviour,  
Cognitive modelling and simulation,  
Simulation of Social Networks, Spatial Simulation

## **OBJECTIVE**

The objective of this special issue is to advance the current state of the art in multi-agent based simulation as a tool for exploring and understanding social processes. The approach draws upon many disciplines and has its roots in the area of distributed artificial intelligence, sociology and simulation. Agent based computing is ideally suited for modelling social situations. Modelling the behaviour of the components of a target social system and simulating its dynamics enables us to question the generation of macroscopic or collective regularities arising from microscopic or individual behaviours. Using agents the evolution of a society may be monitored and its emergent properties captured and studied.

Agent based social simulation (ABSS) has witnessed a strong growth in popularity in recent years. This surge of effort has been motivated, on one hand by our desire to evolve our knowledge of human societies and, on the other hand, by the need for prediction, design and training tools. Attempts to develop realistic models of social situations have exposed weaknesses in our current understanding of social processes and have helped us to improve theories or to develop new ones. This in turn has led us to develop tools for simulating situations to be used where real-life experimentation is too difficult, too expensive or infeasible. New models have been developed which describe the interactions between agents at the cognitive, behavioural and social level.

Despite much progress in ABSS many challenges still remain. For example, the theoretical implications of some of our models are unclear, methods of development remain largely idiosyncratic, scalability of existing systems remains a problem, and validation of our simulation models is often conducted in an ad-hoc manner. Submissions to the special issue may focus on developing and/or testing theoretical results, simulation methods, experiments and applications involving several agents. Topics of relevance include, but are not limited to:

- Agent-based simulation for policy makers
- Simulating social choice and decision making

- Formalisation of sociological theories
- Scalability and stability of simulation systems
- Methodological issues for agent based simulation
- Artificial economics
- Applications of agent based simulations in areas such as crisis management, economics, consumer behaviour, environmental management, transport and traffic, commerce and management

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#### **KEY DATES**

- Paper submissions: 01/08/2010
- Notification to authors: 31/10/2010
- Final versions: 15/12/2010
- Expected publication : February 2011

**EDITOR AND JOURNAL:** [www.revuesonline.com](http://www.revuesonline.com) ou <http://ria.revuesonline.com>

#### **AUTHOR GUIDELINES**

- Manuscripts should be sent to *both* Julie Dugdale and Frédéric Amblard (contact details below) and should be formatted according to the journal style, available at [www.revuesonline.com](http://www.revuesonline.com) (or on request to: [ria@lavoisier.fr](mailto:ria@lavoisier.fr))
- Manuscripts should be between 20-30 pages and may be written in English or French.
- Manuscripts may be sent as a PDF file (preferred format), Postscript (gzipped [.ps.gzip]), Word (and RTF) or paper.
- Final versions should be sent in Word or PDF format. In the latter case the editors will ask the authors to make the typographical corrections.

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