

LOGICAL METHODS FOR SOCIAL CONCEPTS (LMSC'09@ESSLLI'09)

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Workshop organisers:
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Fundamental concepts in social sciences and computer science

- Power
- Cooperation
- Responsibility
- Delegation
- Trust
- Reputation
- Convention
- Norms
- Agreement
- Commitment



Economics, sociology, social psychology

Multi-agent systems (MAS),
distributed AI,
social software

Fundamental concepts in social sciences and computer science (cont.)

Economics, sociology, social psychology:

- game theory,
- theory of organizations and institutions,
- theory of communication,
- theory of group attitudes and group action.

Fundamental concepts in social sciences and computer science (cont.)

Multi-agent systems (MAS), social software:

- design and implementation of intelligent agents acting and interacting in social environments ;
- computational aspects of social mechanisms (e.g. voting, judgement aggregation, resource allocation);
- reputation systems (e.g. EBay);
- electronic institutions.

Logic for social concepts

- Formal analysis of social concepts
 - formal semantics for social concepts
 - formal definitions
 - relationships between concepts
- Formal verification of agent-based programs
- Logical specification of social procedures

Workshop questions and objectives

Understanding the potentialities and limitations of logical methods for the analysis of social concepts

- Is logic adequate to express social concepts in an accurate way?
- Are the basic assumptions in the existing logics for MAS too strong to capture the fundamental aspects of social phenomena (e.g. omniscience, perfect information about interaction structure)?
- Are some concepts relevant for social theory missing in these logics?

Workshop program

13 papers accepted (out of 19 submissions) focusing on four general issues:

- Communication and speech acts (4)
- Individual attitudes (4)
- Group attitudes (3)
- Game theory and mechanism design (2)

A special issue of the Journal of Philosophical Logic is planned based on selected papers presented at the workshop