



Simulating Societies using Distributed AI

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Definitions

- What is modelling?
 - An investigator uses an entity (the model) as a tool for the study of another (the target system)
- What is DAI?
 - What happens, when a set of agents in a multiple agent system (MAS) are allowed to interact and possibly intercommunicate

Agent designs

- Basic reactive agent
 - Memory & set of rules & matching and executing mechanism
- Fashionably layered agent
 - Low level basic reactive layer
 - Deliberative layer
 - High level layer
- Agents with beliefs and emotion
 - Knowledge → Belief, Rationality → Emotions
- Communities or Organizations

Belief and Affect in Hierarchical Organizations

- Hierarchy of Agents
- Tasks are submitted for the agent on the top, and delegated until it reaches the bottom and gets done
- Agents have:
 - Beliefs about the workrates of those spacially close to them
 - „feelings” about their situation
- Degree of misbelief

Why is the society so complex?

- Cooperative resource acquisition and population concentration
- Role of families
- Collective misbelief and pseudo-agents

Pros and cons

- Short
- Not so technical
- Avoiding the details - model?
- Objective questions