

Agent-Based Modelling

The micro-level approach to simulation

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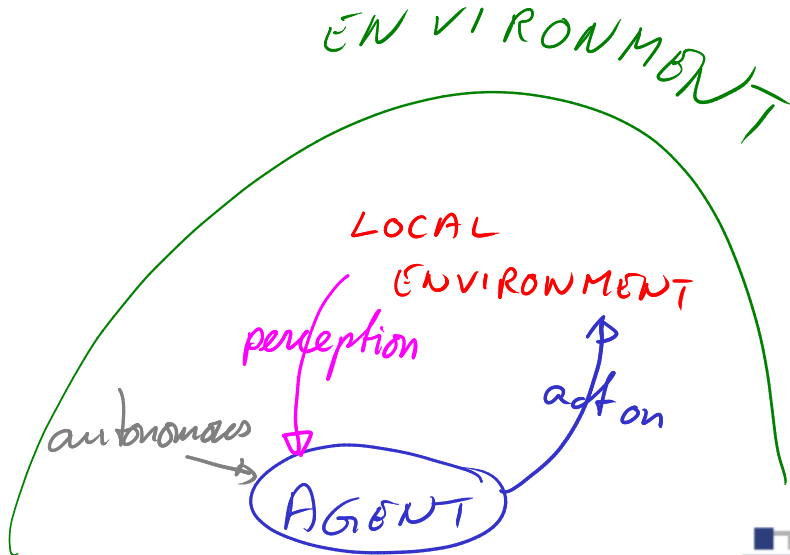
Agent-Based Modelling

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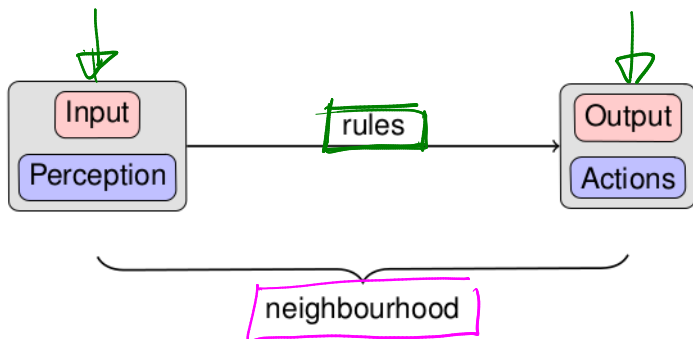
lemmings

- Micro-level approach
- Focus on individuals in the model
 - autonomous agents
- Straight-forward, object-oriented implementation
 - define the agents as objects
 - instantiate
 - run (simulation)
 - see what happens

The Agent



Process



Types of agents

- Deterministic or probabilistic
- Learning or non-learning
- Stationary or mobile
- Exact or approximate perception

Summary

- Each agent is a model in its own right.
- Take time to discuss the nature of each agent.
 - 1 Capabilities
 - 2 Instincts
 - 3 Interests and Objectives
- Modular model
 - straight-forward to implement and simulate