

CS378

Autonomous Multiagent Systems

Spring 2005

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Week 4a: Tuesday, February 8th

Good Afternoon, Colleagues

Are there any questions?

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- Where *does* the soccer sensory model come from?

Logistics

- Programming assignment 4 - any questions?

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- Week 5 assignments are up

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- **Multiagent Systems** : Behavior coordination or behavior management.
 - No necessary guarantees about other agents.
 - Individual behaviors typically simple relative to interaction issues.

Multiagent Systems

- Study, behavior, construction of **possibly preexisting** autonomous agents that interact with each other.
 - incomplete information for agents
 - no global control
 - decentralized data
 - asynchronous computation

Why Multiagent Systems?

(7)

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- Some domains require it. (Hospital scheduling)
- Interoperation of legacy systems
- Parallelism.
- Robustness.
- Scalability
- Simpler programming.
- “Intelligence is deeply and inevitably coupled with interaction.” – *Gerhard Weiss*

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- **Market:** bid for tasks and resources; contracts
- **Scientific community:** full solutions (perhaps with varying information) combined

Class discussion

Joseph Knaack on organizing a paintball team