CS378
Autonomous Multiagent Systems

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The University of Texas at Austin

Thursday, January 19th

Good Afternoon, Colleagues

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Are there any questions?

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Logistics

- Questions about the syllabus?

Logistics

- Questions about the syllabus?

- Class registration

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    - Discussion list, including for Tuesday

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- Install the simulator locally

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- Assignments up through week 3

Words without (accepted) definitions

- Intelligence

- Agent

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All proposed definitions include too much or leave gaps.

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But there are examples...

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- Autonomous robot

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- Information gathering agent

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- Air-traffic controller

- Meeting scheduler

- Computer-game-playing agent

Not Intelligent Agents

- Thermostat

- Telephone

- Answering machine

- Pencil

- Java object

An Example

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- You, as a class, act as a learning agent

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- **Actions**: Wave, Stand, Clap

- **Observations**: colors, reward

- **Goal**: Find an optimal *policy*

  – Way of selecting actions that gets you the most reward

How did you do it?

How did you do it?

- What is your policy?

- What does the world look like?

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Self-Introductions

- Speak loudly

Self-Introductions

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- Name, year, major

Self-Introductions

- Speak loudly

- Name, year, major

- At least one other thing about yourself

Discussion

An autonomous agent is a system situated within and a part of an environment that senses that environment and acts on it, over time, in pursuit of its own agenda and so as to effect what it senses in the future.

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- Is this a good definition?

- The authors claim to give a "formal" definition of agents. Do they?

- Can you do better?

Next week: More on Agents

- Textbook reading

  - An example of an agent
  - Focus on the environment definition!

- RoboCup synthetic agents challenge

  - A bit dated

- Programming assignment