CS344M
Autonomous Multiagent Systems

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Good Afternoon, Colleagues

Are there any questions?

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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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When would you use market vs. hierarchy?

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- Engineering

Dimensions and issues

- cooperative vs. competitive
- communication
- trust
- recursive modeling
- coalititions
- game theory