CS395T
Agent-Based Electronic Commerce
Fall 2006

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Week 8a

Good Afternoon, Colleagues

Are there any questions?

Logistics

- Thursday's reading:
  - Use of General Equilibrium in an agent

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- See resources page

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- CAT answers

Readings Overview

1. The theory of General Equilibrium

2. Its use in market-oriented programming

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   - What's the point? Why do we care?

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   - What's the point? Why do we care?

- Use it for distributed optimization (e.g. resource allocation)

- Use it to **predict** future prices (even if assumptions don't hold)

General Equilibrium

Consumers: utilities, endowments

Producers: production possibility sets

Variables: prices on goods

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  - Braess' paradox

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- Equilibrium vs. global optimum (distributed vs. central)

Non-convexity of preferences

- Why are drugs and web surfing examples?

Tatonement

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Tatonement

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- What if there are many or no solutions?

Quantity-based solutions

- Related to Ausubel auction

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- "Interuptible anytime algorithm"

General Equilibrium vs. game theory

- What is the relationship between Nash Eq. and Gen. Eq.?
- Which is "preferable"?