CS395T
Agent-Based Electronic Commerce
Fall 2006

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Week 11a

Good Afternoon, Colleagues

Are there any questions?

Logistics

- Last Thursday's class

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- Last Thursday's class
- Next Thursday's class

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- Next readings

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Preference Elicitation - Motivation

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- TAC travel: Agent has 8 clients with known value functions
  - What's unrealistic about that?
- Auctions: direct revelation mechanisms are good
  - 2nd price, sealed bid; VCG
- What's the problem in the combinatorial case?

Problem Definition

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- Finding relevant preference information to make whatever decision you want to

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- Paper's case: maximizing social welfare

Terms

- What's an oracle?

Rank Lattice Based Elicitation

- What's the nature of a query?

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- How are upper and lower bounds calculated?
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- How can random queries help?
- What's the problem with this method? Why unrealistic?

General Elicitation Framework

- Value queries

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  - Random
  - Allocatable

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- Value queries
  - Random
  - Allocatable
- Why does it depend on free disposal?
  - What if no free disposal?
- Allocatable provably better?

Proposition 3

- $v_1(b') = [0, 100], v_2(K - b') = 50$
- $v_1(b'') = [0, 100], v_2(K - b'') = 50$
- $v_1(\emptyset) = 0, v_2(K) = 100$

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- b not allocatable, b', b'' sub-bundles.
- What do you learn from finding $v_1(b) = 40$?

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- How do you "choose" among query types?

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- Pivotal: individually-rational

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Class Discussion

- Jaesuk Ahn on effects of market types

Experimental Methodology

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  - Any limitations?
  - What about value correlations?
- Would this method scale up to FCC?

Other query types?

- Order confidence values?