CS378 Autonomous Multiagent Systems Spring 2005

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Week 10a: Tuesday, March 29th

Good Afternoon, Colleagues

Are there any questions?

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- Can GT apply to the real world?
- Are there other GT programming contests?
- What if you don't know outcomes ahead of time?

Logistics

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- Two talks by Rob Holte

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- Did you weigh less after the class than before?
- Who's better at pacman? Chinmay or Neil?
- Who's better at video games in general?

More Programming Competitions

Repeat of IPD: multiple collaborative agents win

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- RoShamBo: statistics vs. direct history

Game Theory

- Multiagent systems
- Economics
- Social science, law, etc.

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- Propose a payoff matrix

Wife
S B

S 2,1 0,0
Me
B 0,0 1,2

Matching Pennies

- We each put a penny down covered
- If they match, I win, if they don't, you win

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Nash equilibrium?

			Player	2	
		Action	1	Action	2
Player 1	Action 1	4,8		2,0	
	Action 2	6,2		0,8	

				Player	2	_
			Action	1	Action	2
Player 1	Action	1	4,8		2,0	
TIUYCI	Action	2	6,2		0,8	

What if player 2 picks action 1 3/4 of the time?

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- Player 1 must be indifferent between actions 1 and 2

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- Player 2 must be indifferent between actions 1 and 2

Do actual numbers matter?

