CS344M Autonomous Multiagent Systems

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Good Afternoon, Colleagues

Are there any questions?

All readings up

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 - Next Tuesday: guest lecture

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 - Responses also to Shivaram Kalyanakrishnan

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- Final projects due in 2 weeks!

Recursive Modeling Method

What should I do?

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 - Includes physical and mental states
 - Could be computationally expensive

Types of models

Example: pursuit task

No-information: Random choice

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Example: pursuit task

No-information: Random choice

Sub-intentional: Not rational

Intentional: Others use same model

Lessons

- Modeling can help
- There is a lot of useless information in recursive models
- Approximations (limited rationality) can be useful

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- Use explicit team operators
 - Introduces challenges of role assignments, and
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- Assume agent is using a plan that you could use,
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- Act based on assumed actions of others

Other papers you read

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- Aaron: "Distinguishing Between Intentional and Unintentional Sequences of Actions"

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Observation:

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 - No building a model

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What if we can't build a full model in advance?

 What are some incremental approaches for building a predictive model?

- Rock beats scissors
- Scissors beats paper
- Paper beats rock

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What is your strategy before modeling me?

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- What is your strategy before modeling me?
- What is your strategy after modeling me?

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- What is your strategy before modeling me?
- What is your strategy after modeling me?
- Am I modeling you?

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- What is your strategy before modeling me?
- What is your strategy after modeling me?
- Am I modeling you?
- Would your end strategy change if I can?

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		Action 1	Action 2		
	Action 1	1,0	3,2		
Player 1					
-	Action 2	2,1	4,0		

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• Nash equilibrium?

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Threats slides