CS378
Autonomous Multiagent Systems
Spring 2005

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The University of Texas at Austin

Week 5b: Thursday, February 16th

Good Afternoon, Colleagues

Are there any questions?

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- shared mental state?

- joint intentions -> maintenance goals

- learn own language

Logistics

- Programming assignment 4 - any questions?

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- Final project

Logistics

- Programming assignment 4 - any questions?

- Final project

- RoboCup 2006 qualification

Joint Intentions – Setting

How agents **form and disband** teams

Joint Intentions – Setting

How agents **form and disband** teams

- Agents in dynamic multiagent world

- Neither complete nor correct beliefs

    – Positive introspection: know own beliefs

- Changeable goals, fallible actions

- Don't know others' beliefs/goals

Starting Point – Individuals

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- What's the role of q?

- What's the difference between goal, intention?

2 proposals for teams

Joint commitment not just intention where agent is team

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Why too weak and too strong?

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Weak achievement goal (WAG): relative to q *with respect to a team* to achieve p

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Weak achievement goal (WAG): relative to q *with respect to a team* to achieve p

- Individually wants p
  OR
- Believes p true, impossible, or irrelevant, AND has a goal of team knowing it.

$\boxed{\text{4 cases}}$

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- Overhead: automatic goal to communicate status

Establishing JPGs

- Communication (basis for KQML)

- Observation (requires co-presence)

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- Communication (basis for KQML)

- Observation (requires co-presence)

- Any other way?

Locution: What is said (physical)

{Per,Il}locution - p.14

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Illocution: What is meant

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Example: "Please close the window."

BDI - p.20

Beliefs, Desires, Intentions

- Beliefs: What the agent thinks to be true

- Desires: What it wants to be true

- Intentions: What it plans to do

- A way of organizing an agent

- Not a well-defined method

Student-led Discussion

- Terry Ma: Examples of joint intentions.