CS343
Artificial Intelligence

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Good Afternoon, Colleagues
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Are there any questions?
Logistics

- Tracking assignment almost done:
  - mean=22.08 (out of 25), stddev=3.71
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• Tournament has 2 agents

• Classification assignment due Thursday
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  – More time for the tournament?
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• Two very good talks this week
  – Thursday at 11, Cynthia Breazeal from MIT Media Lab: **Robots as Social Learners**
  – Friday at 11, Eric Horvitz from Microsoft: **Learning, Reasoning, and Action in the Open World**
Planning

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  - Enjoyable, elegant, . . .
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  – But scales up
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  - But scales up
  - It’s used (don’t be fooled by just 1 week in class)
Planning Applications

• Mobile robots
  – An initial motivator, and still being developed

• Simulated environments
  – Goal-directed agents for training or games

• Web and grid environments
  – Composing queries or services
  – Workflows on a computational grid

• Managing crisis situations
  – Oil-spill, forest fires, urban evacuation, in factories

• And many more
  – Factory automation, flying autonomous spacecraft, playing bridge, military planning, . . .
Questions

- Unification/substitution?
- Relation to prolog?
- What about actions with variable costs?
- PSPACE-complete?