

CS343

Artificial Intelligence

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Good Afternoon, Colleagues

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Are there any questions?

Logistics

- Class registration

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- Problems with the assignment?

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 - 3.1: Goal formulation vs. problem formulation

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- Forum for AI talk on Friday at 11

Pending Questions

- Input: device or perceptions?
- Output: actuators or decisions?

Formalizing the Activity

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- $\mathcal{O} = \{\text{Blue, Red, Green, Black, } \dots\}$
- Rewards in \mathbb{R}
- $\mathcal{A} = \{\textit{Wave, Clap, Stand}\}$

$o_0, a_0, r_0, o_1, a_1, r_1, o_2, \dots$

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Unknowns:

- $\mathcal{S} = 4 \times 3$ grid
- $\mathcal{R} : \mathcal{S} \times \mathcal{A} \mapsto \mathbb{R}$
- $\mathcal{P} = \mathcal{S} \mapsto \mathcal{O}$
- $\mathcal{T} : \mathcal{S} \times \mathcal{A} \mapsto \mathcal{S}$

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Next week: Relaxing the Assumptions

- Textbook readings: continuous spaces, nondeterminism, partial observations, unknown environments, ...
- Responses both Monday and Wednesday
- Search programming assignment