

The background of the slide is a dense field of 3D-rendered numbers (0-9) in various shades of blue and white. The numbers are of different sizes and are arranged in a way that creates a sense of depth and perspective, with some numbers appearing to be in the foreground and others receding into the background.

COMP3411
13A WK3

KELVIN YANG

Part 1: Planning

- ◆ STRIPS
- ◆ Feature-Based Representation of Actions



STRIPS

- ◇ For each action, specify
 - ◇ The precondition to satisfy for this action to be carried out, in the form of Boolean predicates of states
 - ◇ The effect of action, in the form of Boolean predicates of states
 - ◇ The unmentioned states are not affected.
- ◇ iPad demo

Feature-based Representation

- ◇ Need to specify for both actions and features
- ◇ For each action, specify the precondition
- ◇ For each feature, specify:
 - ◇ Causal rules that specify when the feature gets a new value
 - ◇ Frame rules that specify when the feature keeps its value
- ◇ Ipad demo

A group of five people are gathered around a white table in a modern, minimalist room. Two men and two women are standing, while one woman is seated. They appear to be in a collaborative discussion, with one man pointing at a laptop on the table. The background is a plain, light-colored wall. The text '10 mins discussion!' is overlaid in white, bold font at the top center. Below it, two bullet points are listed in white font.

10 mins discussion!

- ◆ 5 mins on forward checking and arc consistency
- ◆ 5 mins on ideas about local search

Part2: Decision Trees

◆ Entropy:

$$\sum_{i=1}^n -p_i \log_2 p_i$$

- ◆ Entropy represents the number of bits to encode the information optimally, so the lower, the better
- ◆ To decide which feature to use for a node, can calculate the expected entropy across all the branches for the features, and select the feature with lowest expected entropy
- ◆ Ipad demo

Assignment Time!

◆ Any questions?

Questions/Feedback/Reminder

- ◇ Any questions?
- ◇ Any feedback?
- ◇ Don't forget to do your homework!
 - ◇ Details in the [announcement](#)
 - ◇ Add 1 question each for part 1 and part 2 (2 questions in total) to your Microsoft form used for last week's homework. Share the link with me if you've not already done so.
 - ◇ Post these questions to open learning

