AI first lecture

1 Goal based programs

We are using the example of putting blocks on top of each other.
Put-on method:

1. findspace
2. grasp -¿ cleartop -¿get rid of -¿put-on
3. move
4. ungrasp

To answer why questions, it goes up one level in the goal tree.
To answer how questions, it goes down one level in the goal tree.

Simon's ant: complexity(behavior) = max(complexity(program), complexity(enviornment))

2 Rule-based expert systems

2.1 Animal example

Identifying animals
Animal characterisitcs:

- has claws
- Sharp teeth
- Forward pointing eyes
- Eating meat
- Has spots
- Very fast

Having multiple of these fields maps to being a certain type of animal i.e claws, teeth, forward pointing eyes means that it's a carnivore.
This is an example of a **Foward chaining rule based "expert" system**

We can also chain backwards: determine that if it's a cheetah it must have

certain characteristics.
When we enconture something we aren't sure about, we recurse through the rules to see if it's true.
This is called a **Backward chaining rule based "expert" system**
These are both **deduction system:** using rules to establish if something is true or false.