

Logical Agents

Chapter 7

Why Do We Need Logic?

- Problem-solving agents were very inflexible: hard code every possible state.
- Search is almost always exponential in the number of states.
- Problem solving agents cannot infer unobserved information.

Knowledge & Reasoning

To address these issues we will introduce

- A **knowledge base (KB)**: a list of facts that are known to the agent.
- Rules to infer new facts from old facts using **rules of inference**.
- **Logic** provides the natural language for this.