

THE AI OF PHILOSOPHY

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- A slogan for AI: **Whatever a person can do, he should be able to make a computer do for him.**
- **AI is the continuation of philosophy by other means.** – van Benthem
- AI, as you'll see, takes sides in long standing controversies.
- **What concepts and advice does AI have to offer philosophy?**

CONCEPTS AND ADVICE

- Start small. Beliefs of a thermostat. Extend to partly known temperature control system.
- Dennett: intentional stance, design stance
→ McC: designer's stance.
- Axiomatizations of the effects of actions and other events. *Situation calculus*.
- Formalized nonmonotonic reasoning. Predicate completion and *circumscription*.

MORE CONCEPTS AND ADVICE

- Elaboration tolerance – One of the missionaries is Jesus Christ. English is still better than present AI formalisms but relies on human common sense.

- Approximate objects and theories. Mount Everest, purposes of the United States.

- Concepts as objects. “I thought your yacht was longer than it is”.

ConceptPerson(I, LLength(YYourYacht)) > Length(Yo

COMMON SENSE INFORMATIC SITUATION

- Bounded theories have to be revised from the outside. Human-level common sense theories must be extendable as we humans extend our own theories.
- open ended theories, the theory as an object, nonmonotonic reasoning, elaboration tolerance, approximate entities.

CONTEXTS AS OBJECTS

- $Ist(\textit{Context-of-this-lecture}(\textit{Speaker} = \textit{McCarthy}))$
- Relations among contexts, *lifting rules*.

$$\begin{aligned} Ist(\textit{Outer}, \textit{Value}(\textit{AF-context}, \textit{Price}(\textit{engine}))) = \\ \textit{Value}(\textit{GE-context}(\textit{Price}(\textit{engine}))) \\ + \textit{Value}(\textit{GE-context}(\textit{Price}(\textit{Spare-parts-kit}(\textit{engine}))) \\ (1) \end{aligned}$$