

philosophy of artificial intelligence

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1 Introduction

Artificial intelligence (AI) has closer scientific connections with philosophy than do other sciences, because AI shares many concepts with philosophy, e.g. action, consciousness, epistemology (what it is sensible to say about the world), and even free will.

2 Ethics of AI

Artificial Intelligence ethics means comprise a set of values, principles, and techniques which employ widely accepted standards of right and wrong to guide moral conduct in the development and deployment of Artificial Intelligence technologies

3 Turing's "polite convention"

Turing's "polite convention": If a machine behaves as intelligently as a human being, then it is as intelligent as a human being. The Dartmouth proposal: "Every aspect of learning or any other feature of intelligence can be so precisely described that a machine can be made to simulate it.

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5 Allen Newell and Herbert A. Simon's physical symbol system hypothesis

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ligent action.

6 John Searle's strong AI hypothesis

John Searle's strong AI hypothesis: "The appropriately programmed computer with the right inputs and outputs would thereby have a mind in exactly the same sense human beings have minds.

7 Hobbes' mechanism

Hobbes' mechanism: "For 'reason' ... is nothing but 'reckoning,' that is adding and subtracting, of the consequences of general names agreed upon for the 'marking' and 'signifying' of our thoughts..."

8 Intelligence

Is it possible to create a machine that can solve all the problems humans solve using their intelligence? This question defines the scope of what machines could do in the future and guides the direction of AI research. It only concerns the behavior of machines and ignores the issues of interest to psychologists, cognitive scientists and philosophers; to answer this question, it does not matter whether a machine is really thinking (as a person thinks) or is just acting like it is thinking.

9 Human thinking is symbol processing

In 1963, Allen Newell and Herbert A. Simon proposed that "symbol manipulation" was the essence of both human and machine intelligence. they wrote;"A physical symbol system has the necessary and sufficient means of general intelligent action." and "The mind can be viewed as a device operating on bits of information according to formal rules."

10 Arguments against symbol processing

These arguments show that human thinking does not consist (solely) of high level symbol manipulation. They do not show that artificial intelligence is impossible, only that more than symbol processing is required.