

Assignment-1

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TOPIC-Philosophy of Artificial Intelligence

SUMMARY

The philosophy of artificial intelligence is a collection of issues primarily concerned with whether or not AI is possible – with whether or not it is possible to build an intelligent thinking machine. Also of concern is whether humans and other animals are best thought of as machines (computational robots, say) themselves. The most important of the "whether-possible" problems lie at the intersection of theories of the semantic contents of thought and the nature of computation. A second suite of problems surrounds the nature of rationality. A third suite revolves around the seeming "transcendent" reasoning powers of the human mind. These problems derive from Kurt Gödel's famous Incompleteness Theorem. A fourth collection of problems concerns the architecture of an intelligent machine. Should a thinking computer use discrete or continuous modes of computing and representing, is having a body necessary, and is being conscious necessary. This takes us to the final set of questions. Can a computer be conscious? Can a computer have a moral sense? Would we have duties to thinking computers, to robots? For example, is it moral for humans to even attempt to build an intelligent machine? If we did build such a machine, would turning it off be the equivalent of murder? If we had a race of such machines, would it be immoral to force them to work for us.

Probably the most important attack on whether AI is possible is John Searle's famous Chinese Room Argument: Searle 1980. This attack focuses on the semantic aspects (mental semantics) of thoughts, thinking, and computing. For some replies to this argument, see the same 1980 journal issue as Searle's original paper. For the problem of the nature of rationality, see Pylyshyn 1987. An especially strong attack on AI from this angle is Jerry Fodor's work on the frame problem: Fodor 1987. On the frame problem in general, see McCarthy Hayes 1969. For some replies to Fodor and advances

on the frame problem, see Ford Pylyshyn 1996. For the transcendent reasoning issue, a central and important paper is Hilary Putnam's Putnam 1960. This paper is arguably the source for the computational turn in 1960s-70s philosophy of mind.

KEYWORD:- Kurt Godel,incomepleteness theorem, intelligence,robot,searle,fodor,phlyshyn,machine,phylosophy, transcendent.