Assignment 03

Summary on Moraveck's paradox

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Moravec's paradox is an anomalous observation in AI that explains that it is easy to replicate logic and reasoning skills like playing chess, solving a mathematical problem etc. which are considered complex in nature but it is hard to transfer skills that are seemingly easy to us like sensory and motor skills to machines. In Hans Moravec's words "it is comparatively easy to make computers exhibit adult level performance on intelligence tests or playing checkers, and difficult or impossible to give them the skills of a one-year-old when it comes to perception and mobility"

Moravec's explanation for this phenomenon, based on evolution, states that the skills which comes to us effortlessly have undergone years of improvements and optimization and hence are so highly developed that they are now a part of our unconscious mind whereas skills like mathematics, engineering, logic are very recent and are yet to be refined. It is difficult to reverse engineer these unconscious skills but engineering the skills that require effort are not that difficult at all.

Historically it was believed that creating thinking machines would only be a matter of few decades as at that time the machines could already be programmed to play chess or solve algebra and use logic so the easy problem of using motor and sensory skills would fall into place. This was due to the fact that our definition of intelligence consisted primarily of attributes consisting of logic, engineering and scientific reasoning. The conclusion that was drawn from these researches as described by Steven Pinker was that we took for granted our basic skills and as the new intelligent devices appear, it would be the jobs of highly skilled professionals that would be in danger whereas the menial jobs of cooks, drivers, gardeners are secure for decades to come.