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Week 3 Artificial Intelligence Lecture

Professor Visser

From Apple

It is nearly impossible to completely distance oneself from the growing AI in todays society. Through apps like Siri from the Iphone, and the algorithms built into the technology we use every day, it is getting increasingly difficult to separate ones own thoughts and actions, with the actions and "thoughts" of the technology we own. Visser stresses the idea of what variables and characteristics define something as AI? This includes both the senses of the AI, like sight, sound, touch etc and the logistics of the AI, which references the machine's ability to learn and the machines problem solving ability. Up until this point in time, Visser suggest that AI is used a supportive tool, rather then to replace the human element all together.

iPhone

AI

There are different definitions of AI which need to be considered while constructing an AI machine. For example, Visser stresses the differences between acting and thinking. He explains that one would need to consider how they want their machine to function. Is the goal for the AI to act like a human does or think like a human does, and make decisions based off of those processes? The main argument posed during this zoom, is the two ways that characterize AI; rational thinking and rational acting. Visser discusses the differences between acting rational and thinking rational. is it possible for an AI to think not only in the same way as humans, but also in the same sequence?

Using Visser's soccer example, the soccer robots are acting rational by scoring goals and winning the game. It is their goal to score. The question being asked is, we see that the AI

can act rational, but to what extent are these robots thinking rationally? Rational thought in this situation would be the ability of these AI to make the decision to either pass, dribble, or shoot.

The construction of AI has been theorized since the early to mid-1900's. Originally, scientists and mathematicians were trying to figure out how to transfer over the mathematical map of our neurons and how to incorporate that into machines. We have seen a massive increase in the allocation of funds towards AI and machine learning to aid us in the future. There is no single answer to the question, "What is AI?". There are many facets of different variables to consider and that overlap to create what we know as AI.

The technological leaps in AI technology occurs exponentially. For example, even though we have had AI for many years now, it is much more developed. AI technology that exists today would have been completely foreign and impossible to understand from the coders, scientists, mathematicians, etc. in even as recently as 2014. Visser himself mentions this phenomenon and uses the example of Wi-Fi. The recent emergence of 5G and its development could and will completely change the way AI advances in the future. Specifically, in the field of cognitive science, AI machines could theoretically learn how to operate on patient's brains with not only more precision then humans, but would also operate without the natural occurrence of human error.