Movie Report for Computational Thinking: The Imitation Game, The Social Dilemma and Avengers: Age of Ultron

* Kunal Bhargava

For a very long time, Human beings have been one of the most intelligent species on the planet, with the exception of some mammals. The only reason why we have been on the higher side of intelligence is after discovering the use of fire and the innovative drive in the human population. The innovations never stooped, and started with the wheel, to today where we have been able to invent an entire separate tool which has a mind of its own, or should we say, an intelligence of its own. This artificially created intelligence, which is not natural and is made to be used as a too is known as ‘Artificial Intelligence' and it is one of the greatest innovations of human beings.

OpenAI’s GPT3.5 Architecture took the world by storm with the introduction of ChatGPT. This AI tool is based on a powerful language model which interacts in the same way a human would, just that it is input based. Although it looks like a chatbot, it has much higher functionality that just answering to normal questions like ‘How is your day going?’. It can not only answer normal day to day questions, but also help write your assignments, as well as multiple lines of complex codes, or design you a website on the basis of your input.

Asking ChatGPT what is the most agreed and common definition of Artificial Intelligence, we get the following definition:

‘Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think and learn like humans, enabling them to perform tasks that typically require human intelligence, such as visual perception speech recognition, decision making and language understanding’.

The three movies that I would be writing this report on the basis are ‘The Imitation Game’, ‘The Social Dilemma’, and ‘Avengers: Age of Ultron’. These three movies are an excellent example of how, in all the films Artificial Intelligence has developed and they show the phases that it could have.

We start with the movie ‘The Imitation Game’, which is based on real life events of World War II, where in the original, the brains behind the Bombe Machine, used to decrypt the Enigma Machine, which held encrypted information from the Germans was the excellent mathematician known by the name Alan Turing. In the movie adaption, Alan Turing proposes the idea of how instead of having humans decrypt a machine’s work, why not have a machine do the work instead. Him being great at cryptography helped him design a machine, which initially struggled to be able to search for relevant information due to unknown inputs. The turning point of the film was when Alan Turing realizes that the only thing the machine had to input for breaking the German codes. This machine was one of the first instances that hinted at AI and machines being the future for years to come. This instance of AI was one of the crucial stepping stones in artificial thinking being input based. It was also the first rudimentary step in the pricess of putting the questions forward, can machines also think?

The next movie ‘The Social Dilemma’ is a pretty insightful, but terrifying take on what this technology can do and what it is being currently used for. As mentioned in the film, data is possibly the most important resource on the planet in this day and age. This has caused online social media websites and causing increased addiction with targeted information being displayed on their devices with the use of artificial intelligence to be able to predict what would increase the user’s engagement on the application to earn through their data. Such AI tools can know more information about you and make a model of you better than what you would know about yourself and this is chilling to know how your data could be exploited to make you react in a certain way. ‘The Social Dilemma’ shows us what the current reality of AI is in the hands of people who know what they are doing, and the potential direction to misuse which can lead to great issues ahead in the future. But it is not all dark and gloomy. The movie also suggests ways in which data collection as well as exploitation can be mitigated and also suggests that people should be educated about the current situation and know what’s going on behind their backs.

Continuing the scenario of misuse of AI, one of the most interesting uses of this technology was done in the movie, ‘Avengers: Age of Ultron; which is a fictional movie, and a concept that is way too extreme to happen soon, but not entirely impossible. Tony Stark, the Iron Man we know, wanted to implement ‘a suit of armor around the world’, claiming it to be peace in our time. What ends up happening is the supposed takeover of Jarvis by Ultron, who spreads through the World Wide Web, and there are many instances where Ultron in his physical state, provides an input to himself n the form of a question and gets an instant reply thanks to his reach on the internet. Jarvis, being a very powerful and smart tool was able to stop Ultron from accessing Nuclear codes in secret, spreading himself so thin in the wide spectrum of the internet that he was practically invisible. With Jarvis’s integration into Vision, Tony created another AI, called Friday, who is much more functional as well as communicative and expressive than Jarvis. The potential outcome that this movie portrays is a very unlikely one ion the near future, since AI is currently still limited to the knowledge that humans have and to the questions, we ask it. It is made to mimic a human’s way of thinking under the input conditions, and hence is not a conscious being of its own.

Although Age of Ultron has a very dark side of Artificial Intelligence, we can take relief in the fact that this is for the most part, fictional. As mentioned in the above paragraphs, it is very unlikely that AI will ever be able to take conscious decisions as it is made to assist as a tool to help increase efficiency in tasks. The possibility of Artificial Intelligence getting consciousness is slim, but human innovation knows no bounds. What ay seem impossible today may be achieved in the far future, where who is to know, Artificial Intelligence may be able to manifest in physical forms.