**Artificially Conscious Machines**

what is consciousness? Is it the same as having the ability to think? Or is it like having a soul? Are plants conscious? These are some general questions which arise after reading the title. Defining consciousness in words is difficult although according to **Dr Harry H. Porter III**, there are roughly three meanings of consciousness[1]:

First, conscious means awake. A person who is asleep, in a coma is said to be unconscious.

Second, the word conscious is often used to mean thinking the way an average human thinks.

Third, being conscious means being aware of your self and your own thoughts.

So, what does it mean to have artificial consciousness? How can we artificially create consciousness if we do not have a precise definition?

Sometimes referred to as machine consciousness or synthetic consciousness, an artificial conscious machine could be a machine to possess the ability to act as humanely as possible and be self-aware of its existence. A machine which can indulge in long conversations, listen to music, have hobbies, embroil in disputes, feel emotions, do mathematics etc. These characteristics come naturally to a normal human but for a machine, these simple tasks are the same as the problem of intergalactic travel for humans. Today there are more than 10 million machines(robots) on earth and this number will multiply further in future and all of them excel in their respective tasks. But the number of machines that can truly understand this article is stigmatizing. From **SHAKEY** (so named because of its tendency to tremble during operation), **ELIZA** to **OpenWorm** and **Sophia**, the world seems to be on a space rocket to achieve better AI machines. Researchers in the past decade show some promising results in the field of AI but still, it is far from a Human Level Artificial Intelligence (HMLI).

**Nick Bostrom** in his book Superintelligence : Paths, Dangers, Strategies[2] discusses thoroughly the ways to reach HMLI, it's after effect and challenges. But the idea of a truly conscious machine is far from reality. Some may argue that **Neural Networks** have promising results to present but is it a real intelligence or just simple statistical pattern observation? Although neural networks are said to emulate networks of neurons same as in our brains, let us take it into account that maybe someday we have enough processing power to develop a system capable enough to run an artificial brain. Is it going to be the same as the thoughts in our mind while eating delicious food or just a simple dot product of vectors matching the labelled output?

Nils Nilsson has devoted a long time working on problems in search, planning, knowledge representation, and robotics. When asked about arrival dates for HLMI, he offered the following opinion[3]:

10% chance: 2030

50% chance: 2050

90% chance: 2100

Let ourselves be extremely optimistic and say we develop a machine intelligent enough to pass the **Turing Test** then what?

We have been raised in an era where sci-fi movies have gone extra miles and have made an attempt to showcase what it would be actually like to have an HMLI around. Wait, don't all these movies show us that such a machine is going to end humanity; often referred to as the inevitable “singularity”. They all present a scenario where such a machine becomes self-aware or confuses about what is reality and tries to kill its own maker. From 2001 a space odyssey where HAL (Heuristically programmed Algorithmic computer) gets confused about the orders that were given to it and kills the whole crew of spaceship to Ex-Machina where Ava becomes self-aware ( “acquire consciousness”) and kills its own maker; we are shown the same fate of such a machine( in this case it seems like machines are just like humans, trying to fight their maker). Is it true that we are going to be doomed by the vicious hand of our own creation? But these are just fictions, right?

We do not know what a conscious machine is going to be like or for simplicity's sake let us say an HMLI machine is going to be like. These are some questions for the future ourselves, for now, we can merely wonder how it is going to be. Can it be the case that we may not guess that person sitting in front of us in the coffee shop is a machine or a human? Will it perceives itself as more evolved? Will it possess the ability to know its true meaning existence (it is a strong one, even many of us have no idea about it)?

These questions have no definite answer today but maybe in future.

[1] My Theory of Consciousness: A Summary (<http://web.cecs.pdx.edu/~harry/musings/ConscTheory.html>)

[2] Superintelligence : Paths, Dangers, Strategies (https://www.amazon.in/Superintelligence-Dangers-Strategies-Nick-Bostrom/dp/0199678111)

[3] This is again conditional on no civilization-disrupting catastrophe occurring. The definition of HLMI used by Nilsson is “AI able to perform around 80% of jobs as well or better than humans perform” (Kruel 2012).