WHAT IS ARTIFICIAL INTELLIGENCE?

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Artificial Intelligence may be defined as intelligence displayed by machines, systems or agents or by entities other than living beings. Apparently, the term seems simple but the definition bears deeper connotations. The terms intelligence and creativity have long been the prerogatives associated with the humans or have been the privileges enjoyed by them since the dawn of the creation. The views 'creativity is computation' or 'cognition is computation' and 'mind as machine' has offset the traditional theories, assumptions and interpretations held so far in the philosophy and theory of mind. AI's push to impart intelligence to non-human entities to enable them to behave intelligently and creatively or as Boden would put it "to make computers do the sort of things that minds can do" (Boden 1) has challenged the very traditional fabric of our perception and comprehension, conception and construction related to our learning and living dispensations.

AI often termed as "the Second Coming" (Barrat) has ushered a new era in the history of mankind. For the first time in his evolutionary career man has sensed a competitor, his Frankenstein. Mcluhan said in *Understanding Media: The Extensions of Man* that technology is the extension of man in a sense that he has extended himself physically but AI is empowering machines with intelligent and creative behaviour with a view to simulate mind which has given birth to a new theory of mind called Computational Theory of Mind or CTM. This scientific endeavour has led to a debate among philosophers, scientists, practitioners, academicians and critics who are divided on the view is AI good or bad for humanity as it has ventured into territories predominantly reserved for humans like intelligence and creativity. This difference of opinion has led to two views about AI. One is called strong AI and the other weak AI.

Strong AI enthusiasts believe that one can create a computer that can literally think and is conscious the way a human is by giving a computer program sufficient processing power and enough intelligence. On the other hand, weak AI considers this view far-fetched or even ludicrous. Weak AI is simply the view that intelligent behaviour can be modelled and used by computers to solve complex problems. The point that a computer behaves intelligently does not prove its equivalence to human intelligence. Nevertheless, AI's arrival has raised philosophical issues and practical concerns regarding mind-body problem, the conundrum of free will, the question of consciousness and challenged our ways of looking at humanity and its future. In fact, some of the its proponents think that AI would be able to surpass human intelligence like Ray Kurzweil describes in his works *The Singularity is Near* and "The Age of Intelligent Machines". According to Kurzweil "Singularity" is a point in time when machines will transcend human intelligence. However, this view has been severely rebutted by many critics who consider it as a figment of their imagination. Among such voices Herbert Dreyfus stands loud and clear in his works like *Alchemy and AI*, *What Computers Cannot Do?* and *Mind over Machine* which present a bleak and pessimistic assessment of it viz-a-viz AI's philosophical foundations and the prospects it envisages. But there are many other voices who are aware of the propensity of AI to change the dynamics of traditional structures and some of them have already felt the heat the way AI has cast its influence on many social structures.

Though a recent addition to the scientific endeavours, AI can be traced back to Greek times. Aristotle's writings have had a major contribution on our modern scientific thinking. His "Syllogism" which is his work on study of logic is closely related to AI. His study of logic was further developed by Peter Abelard in his work "Dialectica", which is a treatise on logic. Dialectica became a breeding ground for other philosophers and scientists like Leibniz and Issac Newton. Newton's Calculus and Leibniz's idea of a formal mathematical language for reasoning gave the needed impetus to AI. And in the last century it was Alan Turing a great English mathematician whose idea of building a machine that could think brought AI into prominence. In

fact, his paper "Computing Machinery and Intelligence" was one of the first papers to be written on the subject and regarding the question "Can machines think?" (Turing 443). He believes it too meaningless to deserve discussion and writes:

> Nevertheless, I believe that at the end of the century the use of words and general educated opinion will have altered so much that one will be able to speak of machines thinking without expecting to be contradicted. I believe further that no useful purpose is served by concealing these beliefs.
>
> (Turing 442)

Turing was ahead of his times and envisioned machines and men would share a common platform to the extent that the machines will become an indispensable part of daily life competing in all walks of life including intellectual and creative.

Following this, John McCarthy organised a conference called as Dartmouth Conference in 1956 which was basically a proposal put forth by him to form and float ideas about thinking machines. The aim of the conference was to deliberate on creativity, natural language processing etc. It was in this conference that McCarthy coined the term Artificial Intelligence or AI. The Dartmouth Conference initiated AI as a research discipline and gave the needed orientation "to nail the flag to the mast". In one of his articles "The Little Thoughts of Thinking Machines", McCarthy writes that in the coming century the "mind-machine" interplay would be a common discourse and by that time:

> Our daily lives involve ever more sophisticated computers, we will find that ascribing little thoughts to machines will be increasingly useful in understanding how to get the most out of them.
>
> (McCarthy)

This is to make machines "anthropomorphic" which means ascribing mental qualities and cognitive processes to them. By doing this, McCarthy believes that we would be in a position to understand how will our actions affect them and how to design them so that in the future we are able to make machines with mental qualities more like our own.

Over the years, the massive proliferation of information technology has provided a fertile ground for AI. The views of Turing and McCarthy seem to be more relevant today than before. The new age is in offing called the digital age where traditions are being driven over by technicality and which is evident from the emergence of new culture called as electronic culture or e-culture. In this new culture trends and techniques have been moulded into new forms of realities like virtuality and hyperreality. And with AI becoming an indispensable feature of this culture, has changed the arithmetic of man-mind discourse into man-machine interplay. From simple domestic gadgets to complex scientific equipments, AI is everywhere. It is used in education, health sector, business world, in forecasting weather and nowadays, it has developed to the proportion that machines have begun to walk, talk and chalk out things thereby putting to question traditional theories and assumptions of our existence and essence.

Moreover, today AI's practical applicability is found everywhere: from home to office, bank, hospital, the sky and schools, colleges, universities or in art to academics. The features AI exhibit like machine learning, deep learning, natural language processing, real time translation and the recent one mixed reality techniques which enable a speaker's voice with same accent and style being translated into different languages and his physical appearance projected far and wide through live holograms: has made AI new field of intellectual inquiry and ascertained the importance this subject holds to the ways we seek and sense, compose and construct, perceive and play our social and academic discourses.

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