"Artificial Intelligence and a Creative Mind"

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I.   Introduction:

The invention of computers or machine, their capability to perform various tasks went on growing exponentially. Humans have developed the power of computer system in terms of their diverse working domains, their increasing speed and reducing size with respect to time. A branch of computer science named Artificial Intelligence pursues creating the computers or machines as intelligent as human beings.

II.   Artificial Intelligence :

According to **John McCarthy,** the father of Artificial Intelligence, it is "The science and engineering of making intelligent machines, especially intelligent computer programs"

Artificial Intelligence is a branch of computer science that aim to create intelligent machines. It has become an essential part of the technology industry. Research associated with artificial intelligence is highly technical and specialized. Artificial Intelligence is accomplished by studying how human brain thinks and how humans learn, decide and work while trying to solve a problem and then using the outcomes of this study as a basis of developing intelligent software and systems. Artificial Intelligence techniques can be used to create new ideas in three ways:

- By producing novel combinations of familiar ideas;
- By exploring the potential of conceptual spaces; and
- By making transformations that enable the generation of previously impossible ideas. Artificial Intelligence will have less difficulty in modeling the generation of new ideas than in automating their evaluation. The development of Artificial Intelligence started with the intention of creating similar intelligence in machines that we find and regard high in humans.

Creativity :

Creativity is a fundamental feature of human intelligence and an inescapable challenge for Artificial Intelligence. There's a unique element of creativity in all of us that machines are unlikely to replicate (at least for the time being). However, the land scape is moving towards a smarter, hyper - connected, ongoing dialogue between people and brands. Things are evolving fast and our industry can't afford to hesitate. We need to use cognitive technology in new ways to boldly break the mould, creating experiences that aren't one- off executions. Creativity is a feature of human Intelligence in general. It is grounded in everyday capacities such as the association of ideas, reminding, perception, analogical thinking, searching a structured problem - space and reflective self- criticism. It involves not only a cognitive dimension (the generation of new ideas) but also motivation and emotion and is closely linked to cultural context and personality factors. Creativity is one of the least understood aspects of intelligence and is often seen as 'intuitive' and not susceptible to rational enquiry.

Artificial Intelligence And A Creative Mind :

Machines can often act and react like humans only it they have abundant information relating to the world. Artificial Intelligence must have access to objects, categories, properties and relations between all of them to implement knowledge engineering. Initiating common sense, reasoning and problem - solving power in machines is a difficult and tedious approach.

Machine learning is another part of Artificial Intelligence. Learning without any kind of supervision requires an ability to indentify patterns in streams of inputs, whereas learning with adequate supervision involves Classification and numerical regressions classification determines the category an object belongs to and regression deals with obtaining a set of numerical input or output examples, thereby discovering functions enabling the generation of suitable outputs from respective inputs.

Artificial Intelligence and Machine Learning, have huge potential to drive a new generation of creative brand experiences. They are at the forefront of a powerful shift that will bring brands closer to consumer

expectations, passions and emotions. Assistive and smart technologies are catching up and we are already facing a new world of possibilities.

Artificial Intelligence and Machine Learning can be applied in many ways. The use of machine learning to power business decisions and product recommendations is becoming widespread. We experience it when we buy on Amazon, watch television on Netflix, hail an Uber or tag friends on Face-book. There are more creative experiments out there such as "The Next Rembrandt app", "Machine music composition "and "TV show script generation" that use Machine Learning to create now art (with mixed results). While Artificial Intelligence is poised to transform our industries and technologies Artificial Intelligence has the potential to change art, creativity and the way brands and agencies create the next generation of experience.

Artificial Intelligence and Machine Learning are new or recent development, but they have a long history. Artificial Intelligence has been researched since the dawn of computing but in the past few years it has become more powerful, flexible and accessible.

Data is the fuel of Artificial Intelligence. This data will become increasingly smarter, thanks to two main factors, First, more connected devices means we will need a more holistic view of consumer lifestyle. And second, the rise of messaging and conversational platforms such as We Chat, Line, Slack and Face-book will be provide a stream of dialogue- based data.   This will result in a new wave of smart data, empowering our industry to understand people on a whole new level.

Most importantly, machines can learn much quicker than humans. They constantly developer and improve over time testing response, intent and sentiment to enhance the service on offer. They can solve the scalability problem, which has blocked truly personalized service for so long.

Machine perception deals with the capability to use sensory inputs to deduce the different aspects of the world, while computer vision is the power to analyze visual inputs with a few sub-problems such as facial, object and gesture recognition.

So, we can say that **Artificial Intelligence** can be used to create new ideas and **Creativity** is a fundamental feature of human intelligence and an inescapable challenge for Artificial Intelligence.

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