















Why is AI flourishing now?





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In 1950 a computer scientist, Alan Turing, proposed a test for machine intelligence. "Artificial Intelligence", this word was coined back in the year 1957 by John McCarthy, an American scientist.

Thus, the buzz word of this decade "Artificial Intelligence" started taking shape 7 decades before. And, after 7 decades it is now a talk of Engineers, Doctors, Psychologists, Biologists, Mathematicians, Sociologists. In the current decade, every sector of the world is receiving Al with welcoming hands.

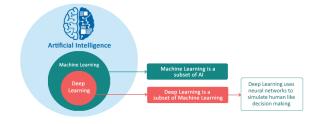


It is not amazing why it took seven decades for the AI to flourish?

The word "Artificial Intelligence" is nothing but a concept to mimic the human brain. Though it was coined way back in 1957, it had lots of limitations with respect to hardware and concept, and was not mature enough till nineties.

In the last two decades, the introduction of Machine Learning (ML) – a subset of AI, and Deep Learning (DL) – a subset of ML, with introduction of GPU and flood of data on the Internet encouraged the advancement of AI.

1. Al vs ML vs DL



Machine Learning: Machine Learning is an art of study of algorithms and learning from examples and experience. ML



enables us to make predictions based on existing patterns in the data.

Deep Learning: Deep learning uses neural network that comprises of different layers to learn from data. Neural Network is an architecture where the layers are stacked on top of each other.

2. Graphics processing unit

Hardware revolution in the last two decades boosted the power of CPU and enabled the user to train the small ML model on any CPU. The GPUs play a major role in processing power of computer which enables the scientists to process large data and complex algorithms in very less time. A GPU is composed of hundreds of cores that can handle thousands of threads simultaneously. The ability of a GPU with 100+ cores to process thousands of threads can accelerate the software by 100 times. Big companies use a cluster of GPUs, and parallel processing to train deep learning models to save weeks of processing time.



3. Data

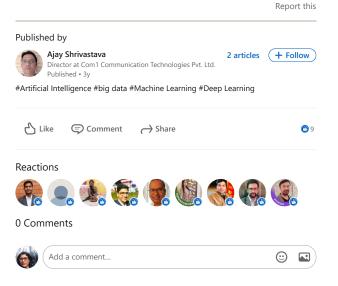
Deep Learning revolves around data and algorithms. This model works efficiently if it is trained enough with pre-existing data set. Data powers the Artificial Intelligence. Without data, nothing can be done. In the last two decades, latest technologies have boosted the capacity of data storage and faster access. It is now easier than ever to store large amount of data in a data center.



Internet was a big revolution that flooded the world with data. This revolution made collection and distribution of data easier and cost effective to feed the machine learning algorithms. Facebook, Flicker, Instagram, etc., have millions of tagged images which increases the potential of Al to train a neural network to identify the object without manually collecting and tagging the objects on image.

Artificial Intelligence combined with data is the new gold. None of the modern age industries can ignore the importance of data in this competitive age. Al provides the best insight and future projections for an organisation based on the data they have. When everyone has the latest technology to use then only data can make a difference. An organization needs exceptionally diverse data sources to enable the machine learning models to learn and find the patterns. Big Data concept is acting as a root for Artificial Intelligence.

So, we can say that AI is the new cutting-edge technology which is flourishing now as a result of tremendous changes in Algorithm implementation, processing power and Big Data.





Ajay Shrivastava

Director at Com1 Communication Technologies Pvt. Ltd.



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