

AI, ML and DL: What's the difference?



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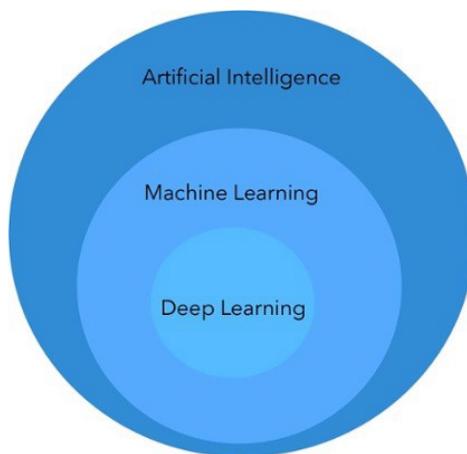
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Artificial Intelligence (AI), Machine Learning (ML) and Deep Learning (DL) are three terms people use as synonyms although they don't refer to the same things.

So, what's the difference between these three concepts?



From: Towards Data Science.

The image above shows that the three concepts are strictly related. However, DL is a subset of ML, which is a subset of AI. In this post, we've defined these three concepts and outlined their applications.

What is Artificial Intelligence (AI)?

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, including learning, reasoning and self-correction. AI can be of two types: weak AI and strong AI. Weak Artificial Intelligence refers to an AI system developed for a specific task. Strong Artificial

Intelligence is an AI system with generalised human cognitive skills.

Application

AI is usually adopted to solve customer service issues, inform people about the latest news along with giving them live traffic updates and weather forecast.

What is Machine Learning (ML)?

Machine learning (ML) is an application of Artificial Intelligence (AI) generating systems that can learn and improve without being programmed. Contrary to AI, ML concentrates on developing computer programs that access data and use it to learn for themselves.

Application

Machine Learning is often used to power recommendation engines that provide suggestions based on past customers' behaviours.

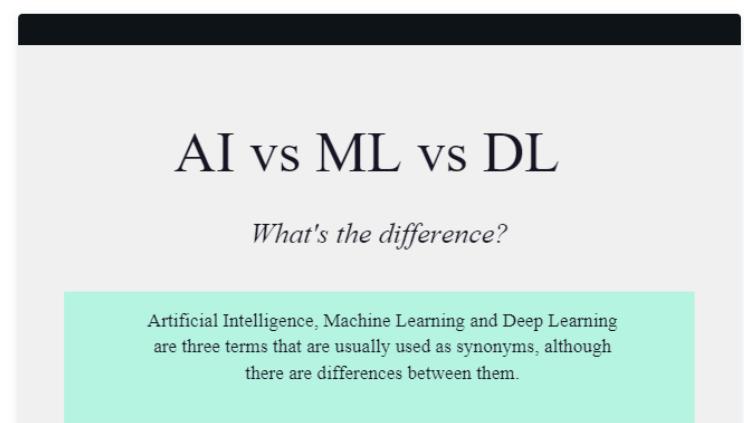
What is Deep Learning (DL)?

Deep Learning (DL) is a subset of Machine Learning and Artificial Intelligence. The term refers to a particular approach used for creating and training neural networks that are considered highly promising decision-making nodes.

Application

Deep Learning is used to develop highly automated systems such as self-driving cars. Through their sensors and onboard analytics, these cars can reorganise obstacle and facilitate situational awareness.

In conclusion, Artificial Intelligence, Machine Learning and Deep Learning are three different terms that need to be fully understood and used separately. The infographic below summarises all the concepts outlined in the post. Feel free to share it.



Artificial Intelligence

AI allows machines to learn from their experience. The machines adjust their responses to perform human activities by processing data and recognising patterns in them.

Application



With AI, bots can add address customer service issues and inform people about the latest news, live traffic updates and weather forecast.



Machine Learning

ML enables machines to learn by themselves through the use of given information. ML algorithms try to minimise errors and maximise the possibilities of their predictions to be true.

Application

Machine Learning is often used to power recommendation engines that provide suggestions based on past customers' behaviours.



Deep Learning

Deep Learning is a subsection of Machine Learning that focuses on Artificial Neural Networks (ANN).

Application

Deep Learning is used to develop highly automated systems such as self-driving cars. Through their sensors and onboard analytics, these cars can reorganise obstacle and facilitate situational awareness.



Machine Learning Artificial Intelligence Deep Learning Infographics



36 claps



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