Difference Between Artificial Intelligence, Machine Learning AndDeep Learning

Artificial Intelligence: Artificial Intelligence is basically the mechanism to incorporate human intelligence into machines through a set of rules(algorithm). AI is a combination of two words: “Artificial” meaning something made by humans or non-natural things and “Intelligence” meaning the ability to understand or think accordingly. Another definition could be that “AI is basically the study of training your machine(computers) to mimic a human brain and it’s thinking capabilities”. AI focuses on 3 major aspects(skills): learning, reasoning and self-correction to obtain maximum efficiency possible.

Machine Learning: Machine Learning is basically the study/process which provides the system(computer) to learn automatically on its own through experiences it had and improve accordingly without being explicitly programmed. ML is an application or subset of AI. ML focuses on the development of programs so that they can access data to use it for themselves. The entire process makes observations on data to identify the possible patterns being formed and make better future decisions as per the examples provided to them. The major aim of ML is to allow the systems to learn by themselves through the experience without any kind of human intervention or assistance.

Deep Learning: Deep Learning is basically a sub-part of the broader family of Machine Learning which makes use of Neural Networks(similar to the neurons working in our brain) to mimic human brain-like behavior. DL algorithms focus on information processing patterns mechanism to possibly identify the patterns just like our human brain does and classify the information accordingly. DL works on larger sets of data when compared to ML and prediction mechanism is self-administered by machines.

Artificial Intelligence	Machine Learning	Deep Learning
AI stands for Artificial Intelligence, and is basically the study/process which enables machines to mimic human behaviour through a particular algorithm.	ML stands for Machine Learning, and is the study that uses statistical methods enabling machines to improve with experience.	DL stands for Deep Learning, and is the study that makes use of Neural Networks(similar to neurons present in the human brain) to imitate functionality just like a human brain.
AI is the broader family consisting of ML and DL as it's components.	ML is the subset of AI.	DL is the subset of ML.
AI is a computer algorithm which exhibits intelligence through decision making.	ML is an AI algorithm which allows systems to learn from data.	DL is a ML algorithm that uses deep(more than one layer) neural networks to analyze data and provide output accordingly.

Search Trees and much complex math is involved in AI.	If you have a clear idea about the logic(math) involved in behind and you can visualize the complex functionalities like K-Mean, Support Vector Machines, etc., then it defines the ML aspect.	If you are clear about the math involved in it but don't have an idea about the features, so you break the complex functionalities into linear/lower dimension features by adding more layers, then it defines the DL aspect.
The aim is to basically increase chances of success and not accuracy.	The aim is to increase accuracy not caring much about the success ratio.	It attains the highest rank in terms of accuracy when it is trained with large amounts of data.
Three broad categories/types Of AI are: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI) and Artificial Super Intelligence (ASI)	Three broad categories/types Of ML are: Supervised Learning, Unsupervised Learning and Reinforcement Learning	DL can be considered as neural networks with a large number of parameters layers lying in one of the four fundamental network architectures: Unsupervised Pre-trained Networks, Convolutional Neural Networks, Recurrent Neural Networks Recursive Neural Networks