# Q1. Difference between Machine Learning and Human Learning

The difference are:

| MACHINE LEARNING | HUMAN LEARNING |
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| -Artificial intelligence (AI) is a field that focuses on creating algorithms and models that allow computers to learn from data and make predictions or judgments. This subject is known as machine learning. | - Human learning, on the other hand, refers to the cognitive process through which people pick up information, abilities, and understanding via personal experience, formal education, and a variety of mental processes. |
| - Learning method: A data-driven method is often used in machine learning, where algorithms are trained on big datasets to find patterns and predict the future. | - Human learning, in contrast, is a sophisticated cognitive process that integrates existing knowledge with new information while requiring observation, reasoning, and memory. |
| -Machine learning algorithms are excellent at generalizing from particular training data to generate predictions on new samples. Within the domain they were trained on, they can recognize patterns and make precise predictions. | - Humans can apply complex concepts, generalize from a small number of instances, and are usually more adaptable than other species. |
| - Machine learning algorithms are remarkably good at tasks like picture recognition, language translation, and game playing, but they frequently fall short in terms of creativity and abstract reasoning. | - On Contrary, humans are capable of innovative thought, the generation of fresh concepts, and symbolic and abstract thinking. |
| -Learning enables a person to consciously understand and interpret information. Humans are frequently able to justify their decisions, offer new perspectives, and comprehend how various factors interact in a cause-and-effect manner. | -Machine learning models are sometimes referred to as "black boxes" since they may make accurate predictions but may not have straightforward underlying logic. |
| - To identify patterns and generate precise predictions, machine learning algorithms largely rely on a huge amount of labeled training data. | - Humans, on the other hand, may learn from many different sources, including first-hand knowledge, observation, conversation, and teaching. |

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| -The quality and representativeness of the training data, algorithm design, and the available computer resources all have an impact on how effective machine learning algorithms are. They could have trouble doing jobs that call for logical thinking, comprehending context, or working with unclear or sparse material. | -Humans are capable of amazing things, yet they also have cognitive biases, and memory problems, are prone to mistakes, and have illogical thoughts. |

## Q2. Applications of Machine Learning

After the _eld of machine learning was \founded" more than a half a century ago, we can now _nd applications of machine learning in almost every aspect of hour life. Popular applications of machine learning include the following:

_ Email spam detection
_ Face detection and matching (e.g., iPhone X)
_ Web search (e.g., DuckDuckGo, Bing, Google)
_ Sports predictions
_ Post o_ce (e.g., sorting letters by zip codes)
_ ATMs (e.g., reading checks)
_ Credit card fraud
_ Stock predictions
_ Smart assistants (Apple Siri, Amazon Alexa, . . . )
_ Product recommendations (e.g., Netix, Amazon)
_ Self-driving cars (e.g., Uber, Tesla)
_ Language translation (Google translate)
_ Sentiment analysis
_ Drug design
_ Medical diagnoses