

1 What is Machine Learning

Machine learning is modeling human learning over data in a way that makes machines and computers predict. This modeling is done with algorithms and is one of the most fundamental components of Artificial Intelligence. AI was born by trying to create a decision mechanism close to the decision mechanism of the human brain through software. For some reason, AI has not yet reached the capacity to fully emulate the functioning of the human brain. For this reason, studies have shifted towards creating smart decision mechanisms in some special application areas. Chess is one of the examples of artificial intelligence that has been successfully applied to a specific field of application. Individuals consciously or unconsciously use applications developed with machine learning techniques many times in their daily lives. One of the most used application areas of machine learning in daily life is activity recognition applications. The purpose of such applications is to recognize, classify, and report appropriately the activities performed by the user. The recognition process is done by processing the data obtained from the sensors on the mobile phone using machine learning techniques. In the Natural Language Processing method, which is basically done with machine learning, mathematical operations such as probability, statistics, and linear algebra are performed.