

Machine Learning Definition :

Arthur Samuel in 1959 defined, Machine Learning as a field of study that gives computers the ability to learn without being explicitly programmed.

Tom Mitchell in 1998 defined Machine Learning as, Well-posed Learning Problem : A computer program is said to learn from experience E with respect to some task T and some performance measure P, if its performance on T, as measured as P, improves with experience E.

Example: Suppose your email program watches which emails you do or do not mark as spam and based on that learns how to better filter spam.

In the above example the ,

Task T : is the classifying emails as spam or not,

Experience E : is watching you label emails as spam or not and

Performance P : is the number of emails correctly classified as spam or not.

Machine Learning Algorithms :

1. Supervised Learning
2. Unsupervised Learning
3. Others : Reinforcement learning, Recommender Systems.