Introduction To Computer Studies

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Section: B7

Report Title: Machine Learning

Introduction:

The Term "Machine Learning" was first coined by artificial intelligence and computer gaming pioneer Arthur Samuel in 1959. Machine Learning is an Application of Artificial Intelligence (AI) that provides systems the ability to automatically learn and improve from experience without using explicitly programmed. Machine Learning focuses on the Development of Computer Programs.

Types Of Machine Learning:

i)Supervised Learning: It is the most practical and widely adopted form of machine learning. It involves creating a mathematical function that relates input variables to the preferred output variables.

ii)Unsupervised Learning: It is opposite of the Supervised Learning .It features no labels. Our algorithm would be fed a lot of data and given the tools to understand the properties of the data.

iii)Reinforcement Learning: It is fairly different both of them. Our learning algorithm learns to make less mistakes than it used to.

Use Of Machine Learning:

- i)Analysis of the stock market
- ii)Credit card fraud detection
- iii)Automated diagnostic procedures

Real Life Example Of Machine Learning:

Image Recognition:

Image recognition is one of the most common uses of machine learning. There are many situations where you can classify the object as a digital image. For example, in the case of a black and white image, the intensity of each pixel is served as one of the measurements. In colored images, each pixels provides 3 measurements of intensities in three different colors — red, green and blue (RGB). Machine learning can be used for face detection in an image as well. There is a separate category for each person in a database of several people.

Conclusion:

We can say that machine learning is an incredible breakthrough in the field of artificial intelligence. And while machine learning has some frightening implications, these machine learning applications are one of the ways through which technology can improve our lives.