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What is Machine Learning ?

People usually have a common ideal that machine learning is a complex concept that only technician or tech savvy individuals gets to know. However, that’s belief is not true at all. Machine learning plays a very important part in our everyday lives because it basically makes up the core or difficult parts of the software that people use on website or mobile phone. Some of the uses of machine learning that we come across in our daily lives are speech recognition on our phones (Siri, Google Now or Microsoft’s Cortana), traffic prediction of Google Map, Personalized Advertising, etc. Thus, we come to the main question: What exactly is machine learning?

First of all, Machine Learning is a form of A.I (Artificial Intelligence) in which the program is designed to learn on its own or to automatically improve its performance at a task. In a more technical term, for machine to start learning a pattern, we need to input data and set up an algorithm for the “machine” to process on its own. The more data we input into the algorithm, the more accurate the data output will be. There are three categories of machine learning: supervised learning, unsupervised learning and reinforcement learning. For supervised learning, it’s where both the input and output data fed are classified under labels, which form the basic for reference and processing. An example would be a picture classification software that distinguish between the images of two different things , like cats or dogs. The second category is unsupervised learning which involves supplying large quantities of data to system without labels for sorting out and processing automatically. This kind of machine learning requires no training and used for more complex functions like language processing or image recognition. The last kind of machine learning is reinforcement learning. It analyzes and learns from its interaction with the environment. The algorithms learn and train themselves through a continuous process of trial and error. The examples of this machine learning are self-driving cars or boards games.

How does machine learning affect the overall business environment? Since machine learning is enabling corporation to expand their net income growth and to optimize process, most of the top corporations and firms are already starting to apply machine learning to their core business technology. Corporate investment in A.I is predicted to triple in 2019, and this will no doubt have a profound effect on both the workplace and on the end user. For merchandising or “e-commerce” companies like Amazon, Best Buy, Walmart, machine learning can be applied to personalizing customer service. By combining historical customer service data, and an algorithm that continuously learn from interaction, firms can already give each of their users/ customers different experiences and offer them special deals that fit the need of each one. On the other hand, for the finance department, machine learning can handle the financial process with ease. By monitoring historical processes and learning to recognize different situations, Ai can increase the number of invoices that can be matched automatically, even if they have no order number. This helps firm to reduce the amount of work outsourced and free up finance employees to focus on more important tasks.

With such a powerful impact on the business world, how can machine learning improve in the near future? As we predicted above, more business will shift to intelligent processes and operation to drive efficiency they look for. This means that there will be more funds being invested, which push the progress of AI faster. Moreover, new hardware will be developed that can handle more complex algorithms and big data. With the exponential development witnessed over the past few years. We can readily sum up the incredible worth of machine learning and intelligent computing in times to come.