Machine Learning

**What does it do?**

Machine Learning is a branch of artificial intelligence that allows machines to learn from data and experiences without being explicitly programmed, Machine learning uses statistics to find patterns data it is fed to then apply this pattern to achieve a task.

An example of state of the art Machine learning includes Virtual Personal Assistants such as Siri, Alexa And Google Assistant to give better insight into how they can assist you, they learn from information and data from your previous use of them to refine your interests and preferences to allow faster and more accurate results based on the user, voice assistants also use machine learning to best predict what you are saying and to learn from your accent and voice for more accurate voice recognition, Another application of machine learning includes predictive text on your mobile devices, the predictive text algorithm learns from your typing habits predicts what you are likely to say, this includes autocorrect features that will predict what you are trying to spell.

Machine learning is also used in popular search engines like Google and Bing to give predictions and search results by finding patterns in the connection of words used to search to provide more accurate results.

Currently machine learning is being used for medical diagnosis, targeted advertising and machine maintenance prediction, but majority of time spent in AI projects and machine learning is estimated 80% is spent on aggregating, cleaning, labelling and augmenting data to be used in machine learning models

The future of machine learning is the ability of unsupervised machine learning in which this time consuming task of aggregating, cleaning, labelling and augmenting data can be automated by the machine so that patterns and trends in a data set that are not already categorised and defined can be found and automatically put into categories by the machine without the need of programmers to do all of the labour.

This will be made possible by more advanced programming to enable machine to learn and advance themselves without supervision and more advanced and powerful accelerators to enhance the performance of the machines ability to perform machine learning and AI tasks for faster predictions.

**What is the likely impact?**

Future development of Machine learning will cause the Automation of many jobs, which will then result in many jobs being made redundant, The paper “Artificial intelligence, Automation, and the Economy.” Published by the White House in 2016 estimates that advances in artificial intelligence (especially machine learning) threaten to phase out as many as 50% of US jobs over the next 20 years. This indicates that majority of jobs performed by middle and lower class workers will be made redundant as they will be automated by computers causing businesses to have lower expenses and higher profits but also causing a rise in unemployment rates, Meaning that people who once performed these tasks will need to be re-skilled and redeployed into other areas. Automation through machine learning is guaranteed 2 increase unemployment rates but will also make day to day living much easier and convenient.

This then applies a much greater focus on education as those that have at least a bachelor’s degree tend to hold jobs that are less automatable.

The advancement of machine learning will likely create more jobs but it is unsure whether the quantity of jobs faced out by automation and machine learning will be greater than or less than the new jobs created by this advancement.

**How will this affect you?**

Improved technologies in machine learning will make life more convenient for me and others but will also create a shortage of jobs for people who are less educated, The advancement of machine learning will automate many things in our day to day lives but overall should not take control of our lives is we should be using machine learning as a tool to further make our lives more efficient rather than letting it control and do everything for us. machine learning should be used to make it easier for us to achieve our goals But should not be used to negate our goals into things that can be achieved by solely by computers without the need of any work from us.

**References**

<https://insights.daffodilsw.com/blog/9-machine-learning-examples-from-day-to-day-life><https://www.imagimob.com/blog/the-past-present-and-future-of-edge-machine-learning>

<https://learn.g2.com/future-of-machine-learning>

<https://data-flair.training/blogs/future-of-machine-learning/>

<https://www.javatpoint.com/difference-between-artificial-intelligence-and-machine-learning>

<https://www.technologyreview.com/2018/11/17/103781/what-is-machine-learning-we-drew-you-another-flowchart/>

<https://thebestschools.org/magazine/future-meaningful-work/>

<https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/Artificial-Intelligence-Automation-Economy.PDF>