The Future for Big Data:

Big data is the mass amount of data sets that are collected and gathered by companies, technology and a large amount of other sources .Big data is the future of modern businesses and marketing and will play a huge role in companies marketing plans using this data to understand upcoming trends and make a profit. A large quantity of this data is unused and unprocessed, so this area has to be developed in the future.

“The big data analytics market is set to reach $103 billion by 2023” (Petrov, 2019). This is an estimation for the future value of big data, this value will only grow as big data becomes more important for companies marketing and research. With the creation of new technology and the growth and popularity of them, like smart watches or smart home devices, more data will be generated and data will be used effectively to understand trends and consumers wants, meaning this data will become more valuable as technology increases to grow.

Due to the growth of technology and the internet big data is becoming more and more relevant and important. Big data has countless ways it can be used, with technology developing more effective and updated uses are possible. With the development of cloud computing everything is fast moving and time effective. The serverless architecture of cloud computing ensures it is possible to manage data remotely. So, for big data to move forward it is necessary to transfer storage of big data from traditional hard drives, which are unreliable and often fail and it is difficult to scale them up, to cloud storage services. These cloud services provide nearly unlimited storage with high fault tolerance. So, they are the next step as big data progresses. Unfortunately, in order for this to happen it will be required for the price of hosting this massive amount of big data on the cloud will have to come down in order for it to be utilised.

“Internet users generate about 2.5 quintillion bytes of data each day” and “In 2012, only 0.5% of all data was analysed” (Petrov, 2019). This shows us we will be generating astronomical amounts of data that in the past was not utilised or processed at all. A short-term solution to be able to process large amounts of data would be, increase the speed of the CPU, storage and network. So, the for the future of big data they will be required to replace traditional algorithms that are not able to pre-process the massive amounts of data. “Highly efficient and scalable data reduction algorithms are required for removing the potentially irrelevant, redundant, noisy and misleading data, and this is one of the most important tasks in Big Data research” (Zhai, Ong, and Tsang 2014).

Data is large and difficult for computers to manage efficiently, so in order to optimise big data management it requires an algorithm that automatically describes big data and relevant processes and generates meta data. Due to the variability of big data it is extremely difficult to generate accurate meta data and also traditional database management systems struggle with the scalability of unstructured big data. So once databases are able to handle big data and generate the large volume of meta data it will be easier for computers to efficiently manage, analyse and visualize big data.

As big data continues to grow and develop, “97.2% of organizations are investing in big data and AI” (Petrov, 2019). As newer technology integrates with the market companies will require people to fill specialized roles as the demand for Big data analytics. This will become a huge part of big data, getting people who are skilled and versed in utilising and processing the data in effective ways that will result in profits for the company.

The future of big data analytics is not set in stone, but it is evident that it is one of the major upcoming thriving industries that will be a behemoth in years to come. In order for this to happen it needs to be prioritised developed and utilised by industries so that everyone will push to improve the infrastructure around it in order to utilise all of the information to the fullest. “Every company has big data in its future and every company will eventually be in the data business.” – By Thomas H. Davenport.

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