Initial Post:

The Internet of Things (IoT) plays an important role in the domain of big data as continuous streaming of device data contributes to an ever-increasing volume, variety and velocity of data. Every device that is connected to the internet delivers a stream of information that lasts as long as it is active. Due to Huxley et al. (2020) the IoT enables analytic processes in real-time, which is the major advantage this sort of analytics brings. Compared to batch-processing the real-time processing enabled via the IoT delivers more up-to-date results which might be used for even better analytical models, e.g., machine learning models. Code Link (2024) present the thought that several products and services in the market exist mainly because of the capabilities IoT data offers. Following their logic, especially smart homes highly benefit from the availability to track data in real time. Furthermore, smart homes are also an example of big data gathering as the connectivity of a multitude of devices also contributes to new big data sources.

However, while the IoT has the obvious advantage of increasing analytical speed and capacity, it also has several drawbacks and limitations. Huxley et al. (2020) argue that the speed in which data is made available via IoT processing at the same time to some degree sacrifices the accuracy of the data. Furthermore, WINIX Technologies (2018) argue that security issues arise in connection with the IoT, as security weaknesses of devices connected to the internet also make the related data these devices hold vulnerable. Dan (2021) adds that the fact that the growth rate of the number of available IoT devices significantly exceeds the growth rate of network capabilities, this over time will create problems in monitoring the devices and their data in high quality.

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