MIS 2502 Extra Credit Assignment - The Internet of Things

The Internet of Things (IoT) is the massive network of devices connected to the internet. These devices are able to collect and share information, communicate with users and businesses, and produce enormous amounts of data. As long as it is connected to the Internet, almost any physical object can become part of the IoT (Ranger, 2020). Most of these objects are used to provide users with easier control, like a home security system controlled by a mobile app, or collect data about a product's functionality, like a chip sensor that helps a manufacturer monitor a product's performance (Burgess, 2017).

With billions of devices around the world all part of the IoT, this network is extremely important and has several benefits. The IoT helps businesses be more flexible and efficient, allowing them to access more data about their products, customers, and internal performance (Ranger, 2020). It also provides people with more convenience and greater control over their devices, despite any physical barriers. The IoT has endless applications and will become even more advantageous as it continues to grow.

The IoT directly relates to many topics we have covered in MIS 2502. Devices from the IoT are used to collect much of the data we process in database systems such as SQL and NoSQL. The IoT also helps enhance data analytics, as it provides both greater quantity and quality of data to analyze when making crucial business decisions. Because the IoT so closely relates to data collection, it is involved in the background of almost every topic we cover when dealing with data analytics.

One example of an IoT application is the Google Nest Thermostat. This smart device enhances the normal functions of a thermostat by providing remote temperature control, real-time monitoring and adjustments, and energy saving techniques ("Nest Thermostat," n.d.). When a user is away on vacation, the thermostat will automatically adjust to save energy. When a user is on their way home, they can cool or heat their house from miles away through an app on their phone. Because this device is connected to the internet, it is part of the IoT. The Nest Thermostat is a great example of how IoT devices can make users' lives easier, saving both time and money.

References

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