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Bluetooth Technology and It’s Influence on the United States

If someone were to ask a classroom of engineers to think of the most impactful technology on American society what do you think their answers would be? There would most likely be some answers such as the light bulb or electricity. There would probably be some more modern answers like transistors or electric vehicles too. There is a lot of influential technology that changed the way people live. However, there is a technology that most people would not think of when they are asked this question. That technology is Bluetooth. Surprisingly this technology was not created in America, even though it is used by almost every American. According to Pew Research Center eighty-one percent of American's own a smartphone (Pew Research Center, 2019). Majority of these smartphones and smart devices come with Bluetooth capabilities. That is why Bluetooth technology is so impactful because it has simplified device connectivity so well that it is used in American's everyday lives.

To breakdown the impacts of Bluetooth technology it is best to first explain what exactly it is. In an article by Jaycon Systems, they define Bluetooth as, “a short-range wireless technology used to transfer data between devices” (Jaycon Systems, 2017). Bluetooth transfers data with a computer chip inside the device. This chip has a radio that operates at a frequency of 2.4 gigahertz to send data in combination with software loaded onto the device (Newark, 2017).

The origins of this technology started in 1989 with a Swedish telecommunications company called Ericsson (Nguyen, 2019). The company wanted to create a radio technology that had a short-range link from computers to wireless headsets. The name “Bluetooth” originated from the Danish King Harald Blatand, who was known for uniting the people of Denmark and Norway (Nguyen, 2019). Bluetooth has been around since the early 90s, but it did not become popular for mobile phones until 2004 (Nguyen, 2019). Then in 2009 with the support of 802.11 Wi-Fi, the data speeds for Bluetooth went up to 24 Mbit/s, which was a significant increase (Nguyen, 2019). Because the technology became more popular and with higher speeds, Bluetooth is now in almost every smart device. This is what led to its large social impact on American society.

American's use Bluetooth almost every day with their smart devices. This could be someone connecting their smartwatch to their phone, their phone to their portable speaker, or sharing a file from one computer to another. In today's age, these are tasks that people do all the time, especially students. However, there is one major impact that Bluetooth has had on America and this is related to driving. With Bluetooth, people can connect to headphones or talking headsets wirelessly. This is very important for driving because it allows people to talk without having their hands on their phone. In some states talking without a hands-free device is even illegal. Take California for example according to the distracted driver’s law, “In California drivers are not allowed to use mobile phones for calling, nor reading or writing text messages while driving on a public road” (California Car Laws, 2019). If it wasn’t for Bluetooth it would be very difficult for people to follow this law. It would be so difficult that the law probably would not have been made. That shows how much power Bluetooth technology has on American citizens because policies were made on the faith that people would use Bluetooth to adapt. Bluetooth is so easily accessible and common now that even smart devices are being made to depend on them. Apple makes some of the worlds most popular phones and they now design their smartphones without audio jacks. This means that people have no choice but to use Bluetooth headphones to use their phone. Apple did this because of how popular Bluetooth headphones are, so they knew it would not be much of a change for people. Although Bluetooth has made people’s lives a lot more convenient with its ability to connect devices, there are still some drawbacks to the technology.

The use of Bluetooth can drain the battery of a phone or other smart device. So, if a user is connected to something for a long time it could take a significant amount of their battery. Also using Bluetooth can be a security issue. In an article by John Papiewski, they mention that "Bluetooth security is weak compared to Wi-Fi and other wireless data standards. A determined attacker can, for example, gain access to your wireless device through a Bluetooth connection” (Papiewski, 2019). Security is a very big concern now and days due to cyber-attacks occurring very often. Though that is the case, Bluetooth is still commonly used among Americans and the world. The ability to connect devices to send data or listen to music with ease is so convenient. That is why Bluetooth is an innovation that is here to stay.

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