**Internet Of Things**

Internet Of Things or in short IoT is a service that connects many smart devices through the internet and creates connections between smart devices. These smart devices are connected to one another by sharing essential data information for each device to work in tandem or together. These small connections between smart devices and services build a bigger network of internet connected devices that now we call Iot. IoT can be used in many different applications such as building a smart home with connected light bulbs, thermometer, garage door, smart fridge, and many more home appliances can be connected. Other than home IoT is applicable in business services or tracking technology goods for example tracking an item such as air conditioning from production until the end user for servicing. IoT is growing rapidly today and it is expected to have 20 billion devices in 2020.

There are many different applications for this IoT and it is basically limited to people's imagination on how to apply IoT to their daily life. Nowadays IoT is mentioned a lot in the smart home ecosystem and companies such as Samsung, LG, and phillips is pushing their home appliances to work together sharing information to one another so it could automate actions. Their products could range from smart fridge that could tell what's inside of them and give notification on the front panel, smart tv that can be controlled using voice, and smart lightbulb that can change it colors based on the current weather or time.

IoT is backed also by the improvement of the networking system. One of the advancement of technology coming really soon to the market is 5G cellular communication technology which gives big bandwidth and strong connection to multiple devices. This means that IoT could be used in more devices without sacrificing the maximum number of devices or the speed of the system. 5G brings major improvement compared to its predecessor such as 10 to 100 times the bandwidth size of 10-20GB/s and faster latency of just 1ms. This improvement will push IoT to a new level and many more areas of markets such as augmented and virtual reality, autonomous vehicles and smart infrastructure, and healthcare.

The Internet of Things has brought many changes to the world, it allows information to be accessed from anywhere and on any device. It definitely saves more time and money as well. In the recent time, IoT is greatly used in almost every single aspect in life such as automotive, industrial, medical, retail, agriculture, smart building/home, security, manufacturing, and many other possibilities.

**What is the likely impact?**

It can be beneficial for both the consumer and the producer side. IoT provides more accurate measurement and more exact decision since it is a “smart” device which can be smarter than all human beings. These all are processed automatically in the IoT system and bring the shortcut for the consumers. As an example, a technology called smart speakers like Google Home was invented to make human daily tasks easier and even faster. This device, launched by Google works as a personal assistant for the entire family members. It can control the other electrical devices such as TV and speaker, and even, it can plan days and manage the tasks. However, it is only one example of IoT devices, and there are still many devices for consumers such as thermostats, smart plugs, and smart fridge which are all the result of the existence of IoT.

Moreover, on the business side, IoT also provides solutions for industrial problems. It brings productivity to its maximum level and brings to more effective business. Iot helps to track and maintain all of the management of the business, for example, it can calculate the most productive hours of employees, inform a technical issue, and also repair a machine. Furthermore, it has beneficial effects for minimizing energy usage, ensuring a safe workplace, and achieving customer satisfaction. Companies would be able to rely more on this technology furthermore its mature stage with all this great features there are several important security issues but if there's more use of it many developers will definitely be solved.

**How will this affect you?**

More from the perspective of a future developer, IoT brings more job opportunities for IT students to work in its area of expertise. There will be demand for IT jobs to work in IoT areas, especially the security side of it. As IT students we need to prepare for this pressure in understanding IoT concepts and how it will be a big part of the modern society. Another point of view of the user, IoT systems will be more common in the house, everything will be connected and autonomous making things simpler and efficient. We would buy more products that has integration with one another and share the same user information to personalise how the thing would work. Same goes to the things happening with our family and friends. They will experience the same advancement of IoT indirectly even because even this day in age our devices are interconnected and share information to work together to bring the best experience for all users.

**References:**

<https://www.globalxetfs.com/how-can-5g-accelerate-iot/>