Internet of things (Benefits & Cons)

There are many benefits of the Internet of Things ( IoT) in today's technological era, but we must also remember that with benefits there also con's, these may involve also challenges and problems that simply can't be left aside.

Our ability to access information is one of the things that IoT enables us to do, without the internet we wouldn't be able to have vast amounts of information to aid us in our everyday life. This is because of the network of these devices that give us this access to every part of this world, " You can easily access data and information that is sitting far from your location, in real-time" (Advantages and Disadvantages of Internet of Things! - RedAlkemi, 2020). This makes everyday life more efficient as we don't need to be there to learn about certain situations. We have access anywhere we go improving our knowledge and making us humans develop more and more.

There are a vast amount of positive contributions for IoT technologies in education "The advances in sensors, nanoelectronics, smart objects, cloud computing, Big Data, and communication on a wide scale will make innovation continuous in IoT" (Kassab, DeFranco and Laplante, 2019). These allow us to collaborate work in groups, cloud computing will back up your information to the system after use, giving you access to it anywhere on the domain & network, reducing expenses and improving productivity for UL in the future, allowing us as a computer science student's access our needs. We are constantly making technology smaller, nanoelectronics gives us energy-efficient tools in order to improve our performance in computing technologies for the future.

The benefits in agriculture with IoT has been an important domain, manually monitoring the status of the fields can prove to be inaccurate and slow, while integrated sensors can continuously monitor the wind speed, precipitation as well as ecosystem control. One of these has a four-layer task mechanism to manage the ecosystem. "Each layer is responsible for a specific task and together the framework is able to achieve a better ecosystem with reduced human intervention" [31] (Qiu T, Xiao H, Zhou P 2013). Storing collected data helps monitor climate conditions and automates agriculture and crop monitoring, this will in return provide a higher quality of crop benefiting the needs of many who consume these products.

Interconnected devices over networks allow us to communicate with each other as efficiently as possible, even if we are connected to machinery or computers we are allowed to send messages and communicate freely over a common network, in big corporations the interconnected devices allow the transfer of data flow efficiently allowing us to allocate time in different sector's that we're not available to us before the advances in IoT. This has an effect to make tasks more cost-effective as this saves time and money transferring packets of data over a network.

A crucial benefit to IoT is the Automation of devices, this is needed to complete tasks without human interaction being needed, this helps boost time and quality of service, becoming more efficient for a business to use.

With the share of information over these devices becomes an issue of privacy and security, as we share countless amounts of information across platforms that anyone can access personal information can be leaked or even hacked "Hacking is more than just manipulating computers.. hacking can be performed on anything " (Wang, 2006). Security is a big aspect as we become more connected to these devices. The transfer of information that is personal to us is shared amongst them, giving us a sense of vulnerability, people you never met before know you in some way or form due to this, making your data known to everyone to use and manipulate your control, this can affect your whole life as all your information can be hijacked, including devices and cameras.

The complexity of the networks of IoT is interesting, as a loophole in this data can cause an effect to all the networks in this system. This loophole of information is a dangerous factor of the internet.

With the automation of devices by interconnected methods isn't always good as it affects people's lives, as we can now do things without our interaction jobs are being made redundant and people are losing forms of income. This is noticeable as the number of jobs is decreasing due to tasks being made easier by machines, the loss in jobs has an effect on people's professions as human labour isn't required.

Our dependability on IoT is also affecting us as technology advances we rely more and more on it to assist us, this has become a big part of our lives. If we don't know the answer to situations we turn to technology to provide it for us. If we become too dependant on this technology it will impact us negatively, even my use of the computer to complete assignment's or for entertainment has affected my social life as well as my physical day to day living, I've had to start wearing glasses because my eyesight is becoming poor due to my dependency of the computer for happiness, negatively affecting my day to day life.

Bibliology

Redalkemi.com. 2020. Advantages And Disadvantages Of Internet Of Things! - Redalkemi. [online] Available at: <<https://www.redalkemi.com/blog/post/pros-cons-of-internet-of-things>> [Accessed 11 May 2020].

Kassab, M., DeFranco, J. and Laplante, P., 2019. Shibboleth Authentication Request. [online] Onlinelibrary-wiley-com.proxy.lib.ul.ie. Available at: <<https://onlinelibrary-wiley-com.proxy.lib.ul.ie/doi/full/10.1111/jcal.12383>> [Accessed 11 May 2020].

Wang, W., 2006. Steal This Computer Book 4.0. San Francisco: No Starch Press, p.31.

Qiu T, Xiao H, Zhou P. Framework and case studies of intelligent monitoring platform in facility agriculture ecosystem. In: Proc. 2013 second international conference on agro-geoinformatics (agro-geoinformatics), Fairfax, VA, USA, 12–16 Aug 2013. IEEE.