



Words of Visionaries

Module: Technology Take Over

The ongoing module at Dreamers & Innovators: "Technology Take Over" is a one-of-a-kind effort to bring young learners in contact with the details of the technology-powered world they live in and how it is transforming their futures with each passing day. At D&I we work with Dreamers who will change the world tomorrow!

This week's newsletter showcases the ideas of four of our Dreamers: Samaira, Manek, Saayesha and Uday, who provide you a detailed analysis of the benefits and hurdles that accompany the adoption of 5G internet technology across the world.

Dreamers & Innovators is a knowledge and skill-building platform for 21st century learners. We aspire, design and execute interactive learning experiences where global knowledge relevant to today and tomorrow is brought to young Dreamers. At D&I, 21st century skills are honed, confident communication is developed and independent, informed opinions are nourished.

From 4G to 5G: How Easy is it?

Samaira Kalra
13 years



In recent decades we have witnessed tremendous development in terms of science and technology globally. One example of this accomplishment is the revolutionary technology of the 5G internet, which will transform our lives altogether.

It involves the usage of wireless cellular network which is 100 times faster than 4G. Faster connectivity speed, ultra-low latency and greater bandwidth are some of its benefits. Nevertheless, it is not as adaptable as it seems. Along with its advantages an array of obstacles will also come along our way. Firstly, setting up the 5G internet will require a huge amount of finances which everyone cannot afford, moreover, switching to 5G gadgets will lead to electronic waste. By 2040, it could generate 14 percent of worldwide greenhouse gas emissions. If the entire system is not energy efficient, 5G will not be sustainable. The 5G internet requires a lot of towers and antennas to be set up at short distances in the nook and corner of the city. These telecom towers emit harmful radiation which can cause cancer.

In conclusion, there are challenges related to infrastructure, investment and health to 5G technology but the 5G internet will bring dynamism in all areas and the development of the world will be further strengthened.

5G Adaption May Not be Easy

Manek Mehra
13 years



"To make changes, a person must be given time, or else the world resends to chaos." As the above quote states, for a change to be good, the stakeholders need to be given enough time to adapt to it and there are many reasons why I see that 5G will be a change that will take a much longer to adapt to. There are many reasons for this.

First of all, according to a research conducted, 5G will cost much more in the start as, investors will need to invest large amounts to help organize a spectrum and the basics of the 5G network, will be mostly software and spectrum based. Which brings me to my second point, 5G will be much more vulnerable to cyber attacks and hacks which may lead to leaking of confidential information from which companies could infer huge losses from other competitors. Take an example of Coca Cola and Pepsi. Imagine if Pepsi got privileged information about Coca Cola, the secret ingredient, the special recipe, The Cola wars will be stopped once and for all.

Although 4G provides the internet speeds we need and the cybersecurity we need but 5G, will be a necessary evil. With the advancement of technology and the onset of IOT, We need to have higher internet speeds, which means 5G, in the near future will be a necessary evil.

The Wonder that is 5G

Saayesha Chandrani
14 years



5G isn't just another tech innovation, it's the platform that makes other innovations possible." - Hans Vestberg, chairman and CEO, Verizon.

Imagine being able to connect hundreds of devices to a single wifi router without running into any network problems or receiving all your emails in a few milliseconds. 5G allows you to do just that and much more!

In recent years, wireless networks have improved significantly as enterprises accommodate an increasing number of mobile devices connecting to their networks. It is expected that fifth-generation wireless technology will represent an even greater leap forward in network performance, enabling enterprises to tap into a range of new applications and services. Maybe self-driving cars and drones are not as far off as you think. We'll all be able to experience virtual reality. From virtual checkups to robotic surgeries, 5G will also have a profound impact on medicine! Smart cities, smart homes, and smart offices will become the norm and lagging would cease to exist.

Experience Improved

Uday Nanda
12 years



5G heralds a bright future for the world. It will enable us to go from smart houses to smart cities. It will take gaming, coding to a whole new level. It will include less ping, packet loss and higher frames per second (fps). The collective improvements in speed, latency as well as the capacity, which means more people can use the network together without losing speed, will improve the user experience as well as scope in use of available and soon-to-appear technologies.

We are in the times of COVID 19 and during this pandemic, everything is online. Whether it is work from home or online school, imagine during meetings or classes when there is a network issue, everything is delayed. With 5G we will not have to worry about this. It will be like talking without any glitches or issue, it will be as smooth as talking when you are in front of the other physically. It will change the future