Name: Cuevas, Maurice Mae G. Date: Oct. 23, 2019

Section/Year: DVE - 2nd year Subject: Social & Professional Issues

Activity 2

**Own Insights about IoT, AI, 5G, & Industry 4.0**

Imagine a world where you could monitor everything digital that you own remotely anywhere you go, at any point in time. Imagine having easy access to almost everything in our daily lives, like live weather updates and forecasts, traffic status, whether we left the front door locked or the stove left on. The internet of things, a prevailing technological advancement that focuses on interconnecting various information and communication systems that would ultimately aid human everyday life and promote harmonious human living.

Approaching the realization of Industry 4.0 technology, this opens new doors for people to be educated via easy-to-access information on the internet, as well as, easier communication and online sessions with education institutions. Building over the digital age where the schools would have their school website put up to view and manage student records, IOT opens a window for students and teachers to participate in having an online class where modules, assignments and activities can be done remotely. Nowadays, many resort to receive online education so that they can perform other activities vital to sustaining human life such as working, having hobbies, learning a certain skill set and the like; having a job while studying, is nothing new in particular, however many opportunities have risen in today’s world where the youth are encouraged to work and earn so that they can learn how to manage their finances early, as well as support their families with regards to the rising cost of living as each year passes by.

The medical world also benefits greatly from the implementation of the industry 4.0 technology, from the assistance of artificial intelligence on doctor-to-patient communication and diagnosis to automated assistance in hospitals. Patients can now, instead of house calling medical specialists and visiting the hospitals, perform online video calls or ask for medical check-ups at their very homes with advanced laboratory and medical equipment that the specialists can carry. Patients can also access their health condition via the use of smart health devices, such as a health bands they could wear and accessorize, in addition, family members could also view shared health status of each family member through an live online server by their hospitals. This advancement provides great convenience for both the client and doctors, as well as it opens an avenue for flexible medical plans to be offered by hospitals.

Manufacturing companies were one of the first to implement the internet of things. By automating process, their labor cost would decrease at the same time increase the production quality by eliminating human error correction, and by increasing production rate through utilizing the automation of machines doing most of the workload that would be done by human labor before.

Convenience and flexibility has also improved through the managerial degree thanks to having fully digital information systems, from human resources, workforce planning, inventory checking and manufacturing designs. Gone are the days where factories rely much on human labor thanks to automatic computerized machines lifting the weight of heavy workload.

There are more things we have yet to imagine the implementation of IoT can do to help our human lives easier, from welfare, education, geologic cultivation and expansion through AI-driven metallurgy technology that facilitates identification and organization of geographic information such as a certain rock’s properties and the attributes of a given geographic space.

Industry 4.0 also involves the application of 5G technology, the implementation overall increases the rate of information bandwidth to travel through communication channels making communication between information systems, even in great distances, to be exchanged with utmost minimal latency.

This ultimately increases internet speed provided by telecommunication service providers towards their client, as well as, it greatly decreases internet traffic via the expansion of frequency ranges to be used to exchange and communicate electronic data.

The major advantages that the implementation of industry 4.0 technology which facilitates the widespread use of artificial intelligence, 5G communication technology and the interconnection of multiple various information systems through the internet, otherwise known as the internet of things,

are the convenience it could provide to better our everyday human lives not only as civilians but also as industry-involved employees that ultimately aims to improve the quality of life of all through better healthcare, welfare, safety,security, economic growth, and social growth. If we could start slowly implementing the IOT, we could provide better healthcare, education and industrialization of potential areas in our country that we could potentially benefit from to improve the quality of life in the Philippines. Technological advancement is a tool devised in order to bridge people together, and that, I believe, is why we should not give negligence to the potential of Industry 4.0 technology to help us strive better, healthier, towards a more brilliant, educated, peaceful future.