TechTalk Day2: Robotics & Machine Learning

On August 27, Wocee Wired dedicated its second TechTalk webinar series to tackle robotics and its diverse application, artificial Intelligence, machine intelligence, deep learning, and AR/VR enabling a new level of brand interactions in a pandemic with guest speakers Mr. Ralph Regalado, Mr. Ponzi Alampay, Mr. DJ Baylon, and Ms. Maricel Teogangco.

Artificial Intelligence is defined as the extension of human capabilities by sensing, acting, and learning. And today, artificial intelligence is growing so it is important to understand this technology so we will understand what it is all about and how it can impact us. By definition according to the webinar, AI makes machines to solve problems commonly associated with human intelligence. Under this category are machine learning and deep learning. Machine Learning makes the machine learn from experience instead of explicit programming, and deep learning uses deep neural networks. Nowadays, Artificial Intelligence is very useful to businesses, as shown in the example on webinar, it augments calls to provide better customer service, for example it streamline contact center calls via virtual voice agent to minimize the call bottlenecks. Another is the OCR which automates form processing and document validation. At airports today, they developed machine learning that automatically classified the customer's service data, this improves the airline operations. The growth also helped in terms of improving research which also improves our daily lives. It is also shown that although AI grows globally, in the Philippines AI is not that well yet according to the 2020 Philippine Enterprise AI readiness survey. My intake in this topic is that AI contributes a lot when it comes to making our lives easier, it enables multi-tasking and eases the human's workload. However, along with its advantages it also has disadvantages like it is high cost and it increases the risk of unemployment. But, it is also important that AI should be taught to increase the familiarity of Filipinos about it, especially adapting AI technology to businesses to increase its productivity and operational efficiencies.

The next topic talks about how AR/VR enables a new level of brand interactions in a pandemic. During the pandemic, we are obliged to social distance, there's restriction of movements, it forces us to shift and adapt online which also accelerated the use of technology. One of these technologies, AR/VR, is changing the industry today. VR or virtual reality uses a headset with a built in screen and displays a virtual environment to explore. This uses head tracking technology that allows the user to move its head

in order to see the environment. Augmented Reality on the other hand is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology. These technologies are growing at a rapid pace, and are implemented in different ways like surgeons using it to practice surgeries before operating. Businesses use it to give consumers virtual tours of products and locations. Due to movement restriction caused by pandemic, real estate shows 3D virtual tours to those tenants in the comfort of their home, and without the broker stepping inside the space. The VR is also useful in Product Journey- showing products online while allowing them to explore the product's features as if they were in the shop. VR is also used in training and education, like an AI doing a demo on how to use a certain product.

The last topic is about automation and robotics application. Today's industry (industrial automation) uses control systems such as computers, robots, and information technologies for handling different processes and machineries with the absence of human intervention. However, the usage of robotics have challenges too: First is technical, what materials would the robot will use to provide efficient way of performing task, its cost effectiveness, and power sources for mobile robots; second issue is social, robots may not identify social signals, and it should be able to adapt accordingly to social and cultural differences; lastly is ethical. It should address the ethics and security issues when integrating robots to a workplace or to the society. The future robots are expected to be multifunctional, power-efficient and compliant. Moreover, today, robot production and usage is increasing and it is expected to grow more - businesses and science fields in other countries use it, especially Japan, the US, South Korea, and China who is the most significant industrial robotic consumer in the world.

To conclude, technological innovations such as AI, VR/AR, and robotics will grow more in the future considering the benefits it provides today despites its issues. And its market will not only be for industries, but also for homes and medical/science fields. Robotic industry will be a major player in the next decades to come.