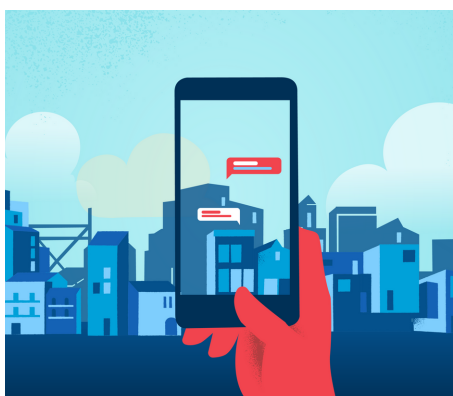# INDUSTRIAL 4.0
PAST, PRESENT, FUTURE

What is Industrial 4.0?

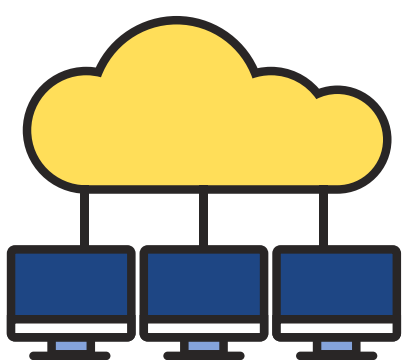**Industrial starts with 1.0,2.0,3.0 then 4.0. How does this revolution happen?**

1.0– During 70 & 80th century, changes between manpower to mechanical power happens.
2.0– Machines have been developed and mass production of goods.
3.0– Era of computing and digital industry where birth of first phyto controller and computer become the key driver.
4.0– An era which artificial intelligence mechanism matters. Lots of new things have been invented and upgraded.

Augmented Reality

In industrial 4.0, AR have been intoduced and use. It is a simple application that provides more information. AR allows you to see things digitally. You can use your digital device and pinpoint it to one spot the you can see something appear.

Pokémon Go

Cloud Computing

CONNECTED USING THE INTERNET
– Does not require storage device.
– Better stability and flexibiliy.
Example: iCloud, Google Drive, Google cloud.

GOOGLE Drive

Commerce 4.0

– Service provider adapting a machine learning technology to study the buying pattern and behavior of customers.
– Electric car such as Tesla 3 is connected to the cloud, fully autonomous and smart home that are connected to the internet and could be controlled remotely are examples of commerce 4.0

TESLA

Education 4.0

Online platforms: Zoom, Google Meet, Webex, digital mails are considered as Education 3.0

Ways to adapt Education 4.0:
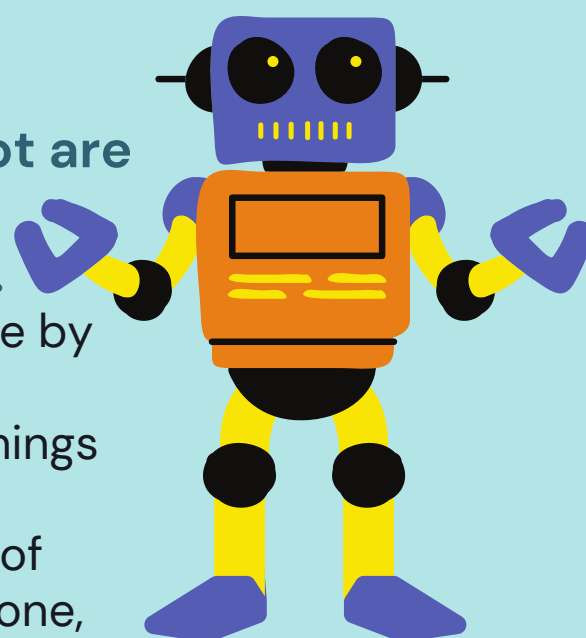– implement virtual reality experience in education

Big Data Analytics

Big data analytics requires steps:
1. Large number of unstructured data
2. Put it in data analytics engine.
3. From that, something beneficial is invented
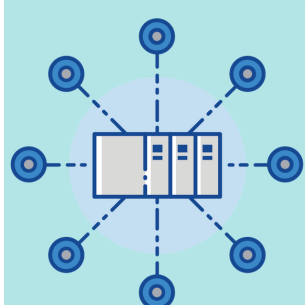
Autonomous Robots

Autonomous robot are made with AI and machine learning.
– Reduce errors made by human
– Capable of doing things without bias.
– Made with mixture of devices like microphone, scanners and etc.

System Integration

A process where multiple subsystems are combined into one large system
Example: Virtual components consist of data stored in databases, software and applications

Internet of Things

Perception layer
Has sensors for sensing and gathering information about the environment.
Network layer
Used for transmitting and processing data
Application layer
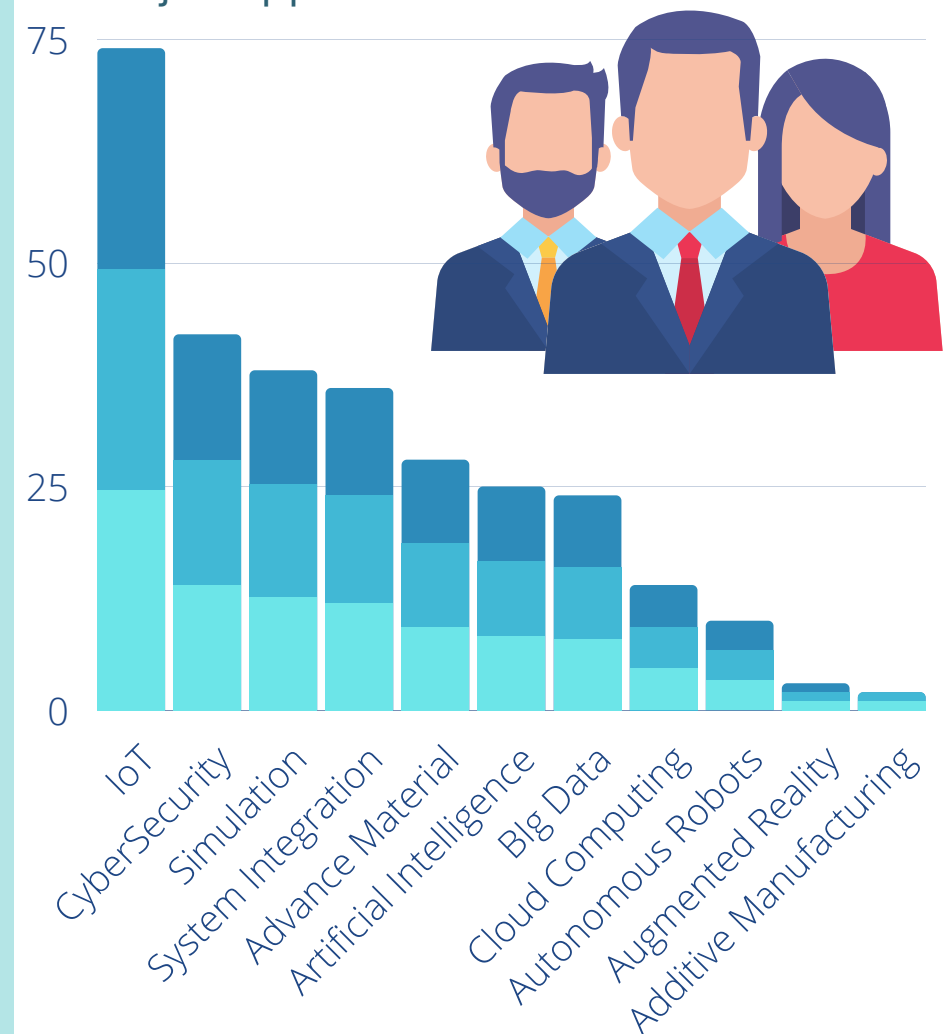To deliver application specific services/instruction to the user.

Cyber Security

The practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks.

Malaysian Technology Companies 2020

Over the years, there are more companies developing IIR 4.0 technology, introducing more job opportunities

Bar chart (y-axis: 0, 25, 50, 75): IoT, CyberSecurity, Simulation, System Integration, Advance Material, Artificial Intelligence, Big Data, Cloud Computing, Autonomous Robots, Augmented Reality, Additive Manufacturing

5G Digital Malaysia

Digital Malaysia
Digital Government
SMART CITY — CCTV

Digital Society
ELECTRIC CAR

Digital Economy
SMART FARMING

Reflection

This industry talk was an eye opening to the changes of the world and many informations were receive.

Uber, Shopee, Google showed how much innovation have changed our life. So much hassle has been reduced with the help of these innovations. This had given us the motivation to continue create new technologies that could benefit the world.