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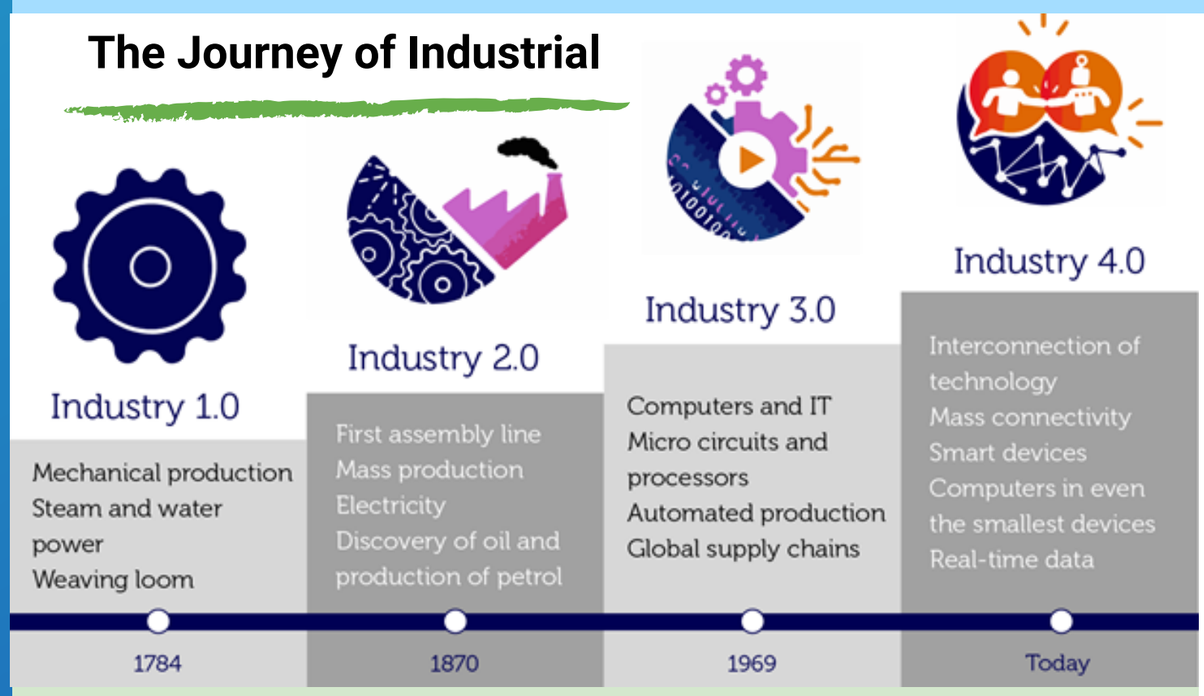
# INDUSTRIAL 4.0 : PAST, PRESENT, FUTURE

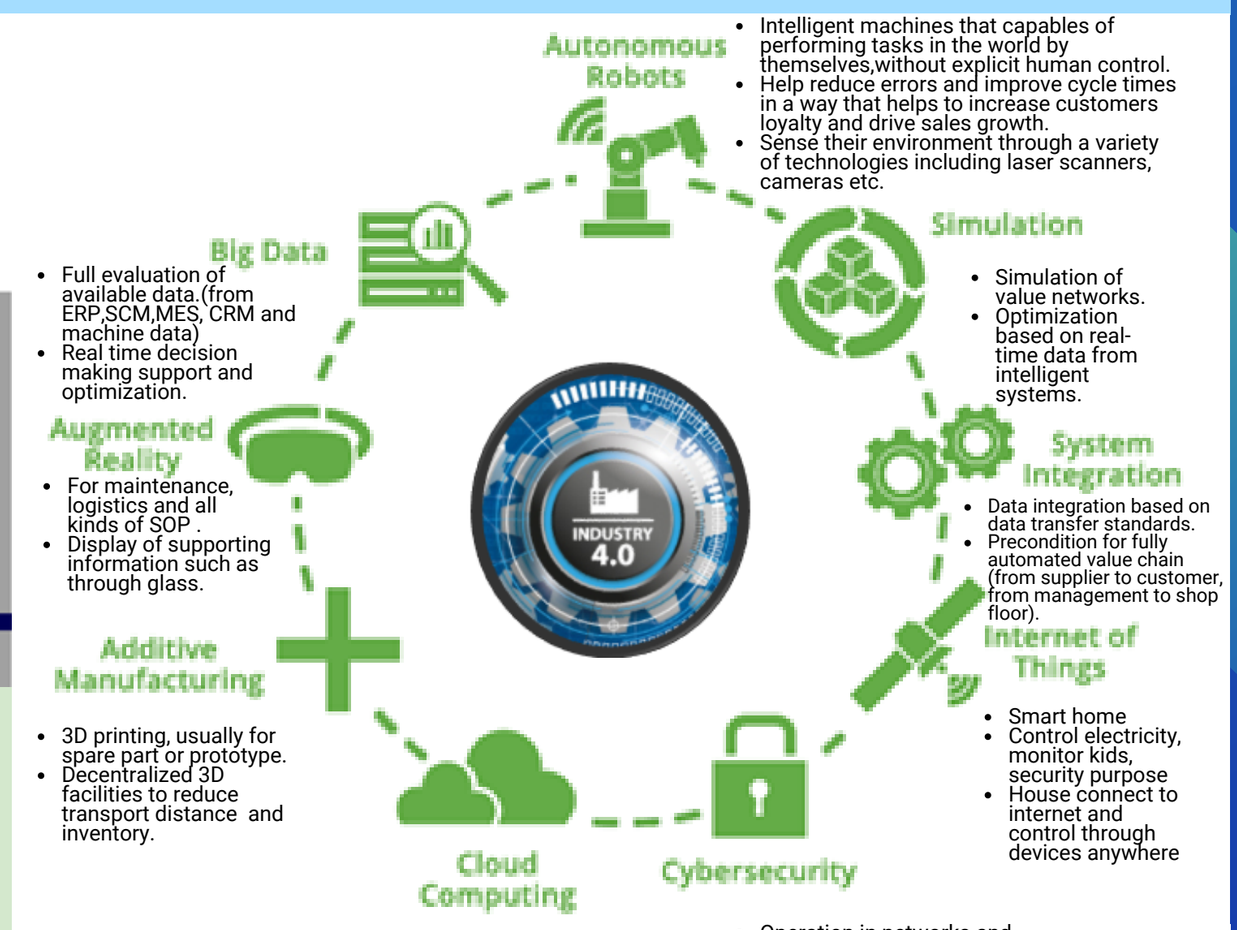
**In era of digital transformation, industry 4.0 is the main focus contributions for the change. Industry 4.0 is the fourth industrial revolution and represents a new step in the organization and regulation of the industrial value chain. It applies to the intelligent networking of devices and processes for industry with the aid of information and communication technologies.**

## What is the benefit of Industrial Revolution 4.0?

- Enhanced efficiency through optimization and automation
- Real-time data for a real-time supply chain in a real-time economy
- Higher business continuity through advanced maintenance and monitoring possibilities
- Better quality products like real-time monitoring, IoT-enabled quality improvement and cobots
- Better working conditions and sustainability
- Personalization and customization for the 'new' consumer
- Improved agility
- The development of innovative capabilities and new revenue models




https://www.rmit.edu.au/for-business/staff-development-and-training/tailored-training-solutions/c4de/industry-40




### INDUSTRY 1.0

The first industrial revolution dates back to the end of the 18th century, back to 1784 in which daylight was used by the first electric loom. Mechanical manufacturing facilities powered by water and steam are regarded as the first industrial revolution.

### INDUSTRY 2.0

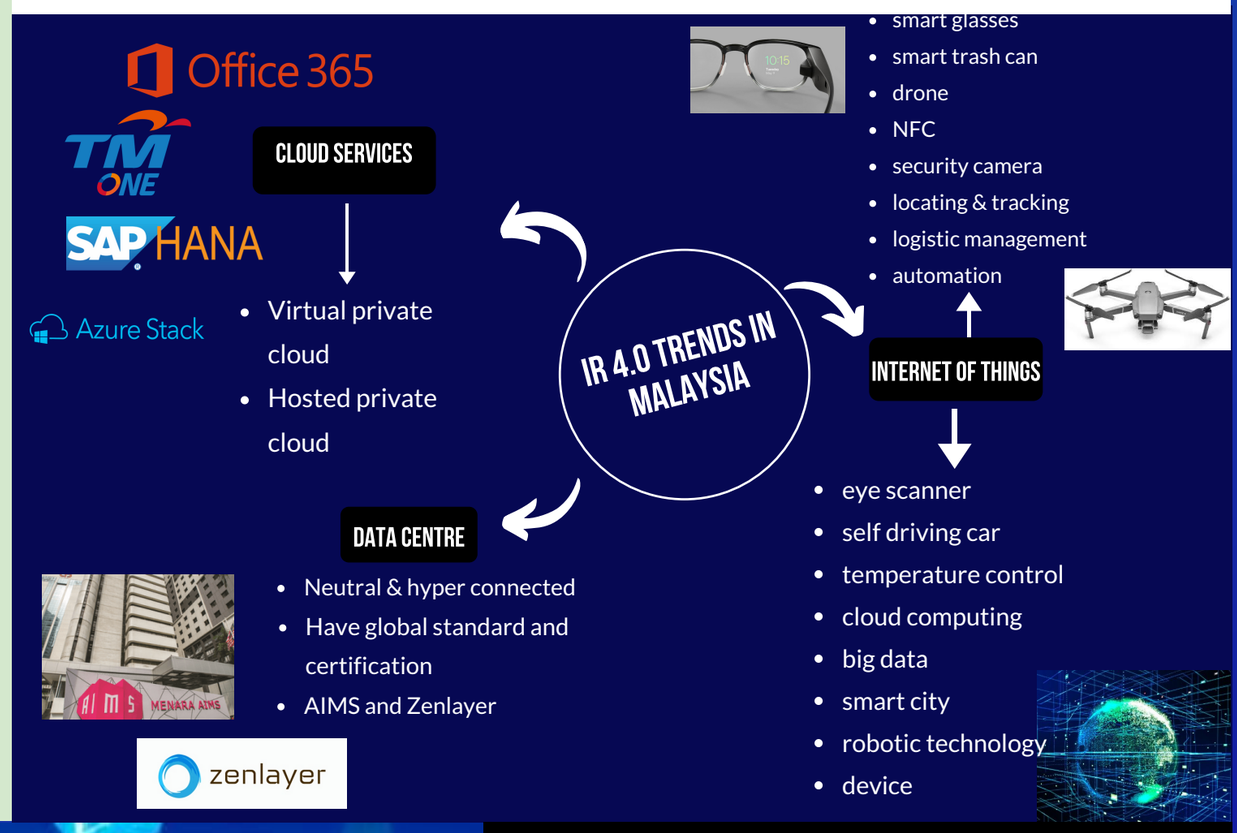
The second industrial revolution brings us back to the beginning of the twentieth century. Don't confuse this with the basic concepts of electricity generation that were discovered by the British scientist Michael Faraday in the period between 1820 and 1830. The second revolution was all about mass production focused on electrical energy-powered division of labour.

### INDUSTRY 3.0

The third industrial revolution brings us back to the early 1970s, when electronics, IT and heavy-duty industrial robots were put into action to further automate manufacturing.

### INDUSTRY 4.0

Industry 4.0 is the German government's initiative to change the paradigm from the conventional way of production to the future way of production. Where analogue and mechanical are main terms in the conventional way of output, digital will be the future way of doing business in this market segment. The fourth industrial revolution brings us back to today, where we see the first moves of Industry 4.0, focused on cyber-physical manufacturing.

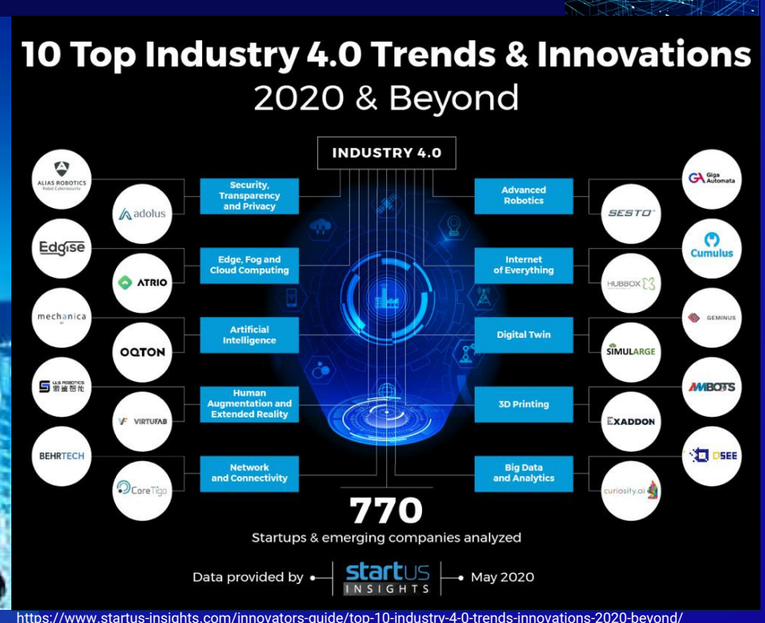



## REFLECTION ON TALK

- We realised the importance of mastering soft skills and technical skills to build up a better future for all beings. Thus, We need to understand the past in order to appreciate the present and to learn how it will change the future.
- Since MCO, the internet is a psychological need for people. According to analysis from Telekom Malaysia, during MCO, the usage of mobile data is increasing especially for gaming which is 144%. Next, the usage of the internet for cloud services increases 51% since people work from home.

## REFLECTION ON TALK

- We noticed that human is evolving from time to time and obviously had become better as we human grow from using steam till using data and technology. We as a data engineering student should follow the trend and improve ourselves.
- Previously human using note and hand written to record something which is hardcopy but now everything is softcopy and we can record more things and faster.
- If we face any pandemic, we still can continue to learn and study from school. Like in 1918 our world face Spanish Flu, only a partial of student got education in this period but now only a partial student do not got their education.


https://www.startus-insights.com/innovators-guide/top-10-industry-4-0-trends-innovations-2020-beyond/