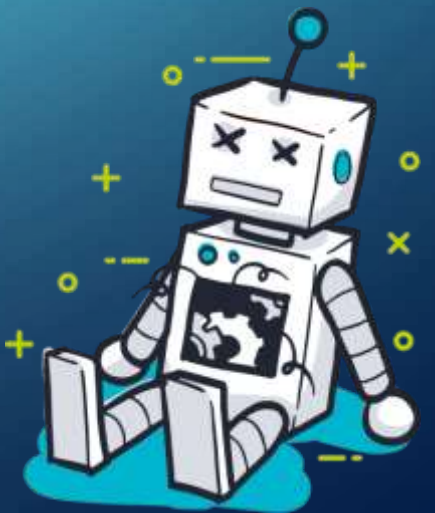
02. INNOVATION USING ARTIFICIAL INTELLIGENCE

M6U4P2

WHAT IS ARTIFICIAL INTELLIGENCE?

ARTIFICIAL INTELLIGENCE

- At present, artificial intelligence is a branch of computer science that aims to create machine intelligence that can learn, think and make decisions like humans.
- Once the AI is fully developed, it will become a world changer like the Internet and mobile phones



ARTIFICIAL INTELLIGENCE IN DAILY LIFE

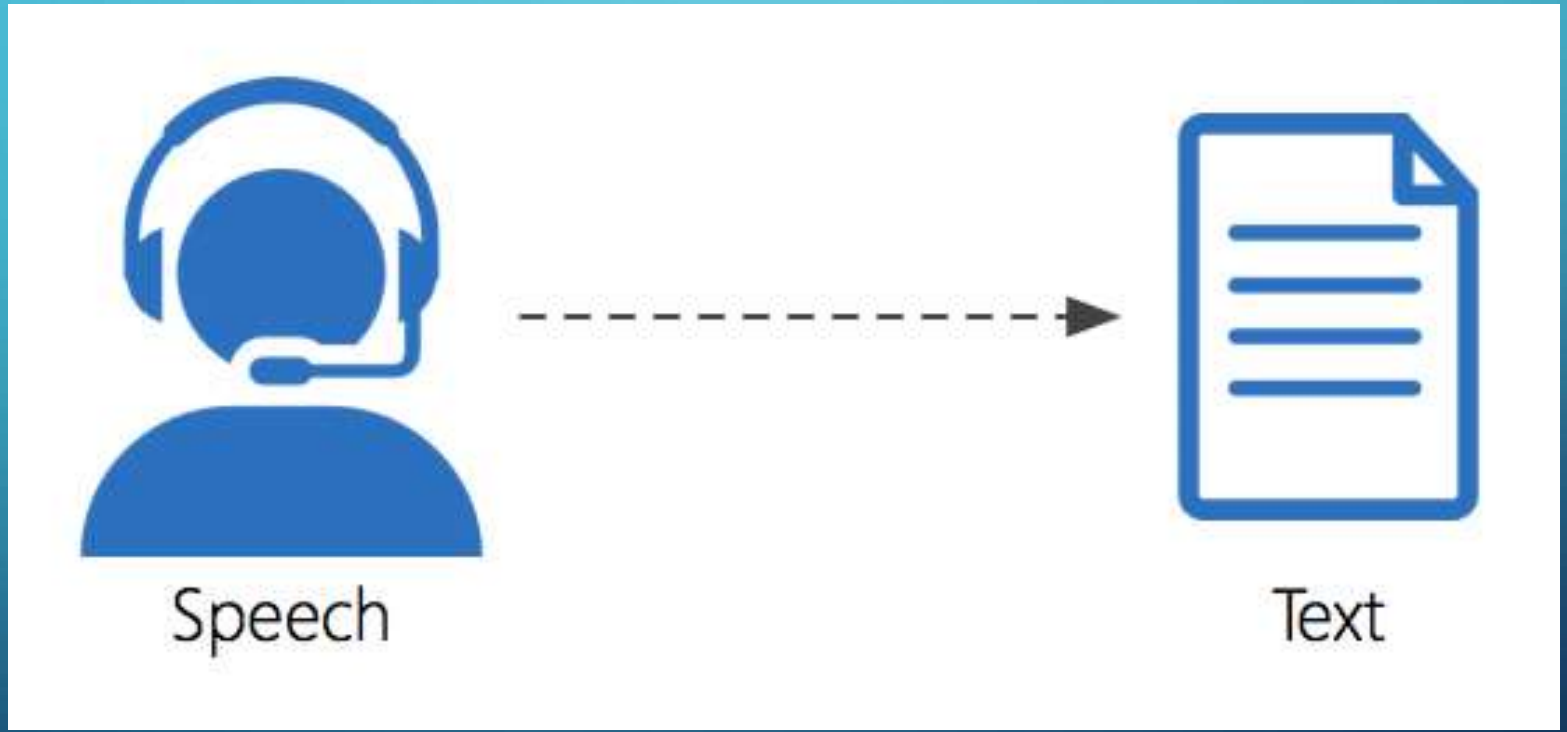
- In our daily life we are using applications that are using artificial intelligence in the background
- It can be for searching for information or obtaining purchase advice from an online store
- There are many other applications that use artificial intelligence
- Examples of innovations that use artificial intelligence include:

Applications of AI

- Healthcare
- Automobile
- Finance
- Surveillance
- Social Media
- Entertainment

- Education
- Space Exploration
- Gaming
- Robotics
- Agriculture
- E-commerce

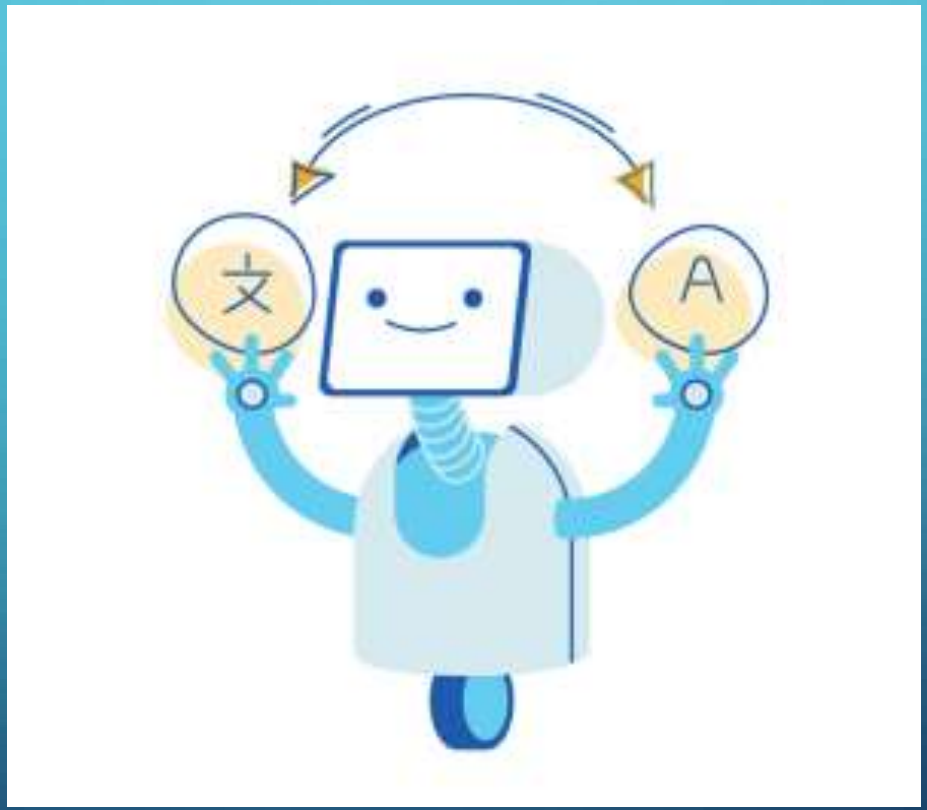
SPEECH TO TEXT



SPEECH TO TEXT

- Speech to text is used to create information by speech
- Instead of typing with a keyboard, it uses a speech recognition system that learns to convert speech (input data) into text (output data)
- Many people may have used speech recognition systems that come with some smartphone applications

MACHINE TRANSLATION



MACHINE TRANSLATION

- Machine translation is a program used for translating human languages from one language to another
- For example translating English into Thai
- The system is learning to translate from a large amount of data until it can translate the language fluently

FACIAL IDENTIFICATION

FACE IDENTIFICATION

- Face recognition system is a program used to analyze a person's face image and tell which person the face belongs to by learning from a large amount of facial image data
- On smartphones it works in a different way, a smartphone sends a lot of infrared signals to your face which bounce back to the phones sensor to detect your face

SELF-DRIVING CARS

SELF-DRIVING CARS

- Self-driving car is a car that can be driven by itself without the need for a driver
- Artificial intelligence is needed to drive the car
- It receives input data from sensors such as cameras, radar and Lidar, and outputs data as actions to control the car, such as turning left, turning right, increasing speed, slowing down or stopping the car
- The AI will learn to drive a car from a large amount of data until it can safely drive itself

ANY QUESTIONS?

HOMEWORK

THE END