

1. **Facial Recognition in Law Enforcement**

- Description: The use of facial recognition technology in law enforcement to identify and track suspects and potential criminals.
- Pros: The technology can help to quickly identify and track criminals, potentially reducing crime rates. It can also help to improve the efficiency of police investigations.
- Cons: There are concerns that the technology may be inaccurate, leading to false identifications and wrongful arrests. There are also concerns about the technology's impact on civil liberties and privacy. Ethical concerns include issues of bias and discrimination, particularly against marginalised communities.

2. **Self-Driving Cars**

- Description: The use of AI technology to power autonomous vehicles.
- Pros: Self-driving cars have the potential to reduce accidents caused by human error, as well as decrease traffic congestion. They could also improve mobility for those who are unable to drive due to disability or age.
- Cons: There are concerns about the reliability and safety of the technology, particularly in the event of system failures or unexpected situations. There are also concerns about the impact of self-driving cars on employment, particularly in the transportation industry. Ethical concerns include issues of liability in the event of accidents and issues of access to the technology for marginalised communities.

3. **AI-Powered Tutors**

- Description: The use of AI technology to power educational programs that can provide personalised instruction and feedback to students.
- Pros: AI-powered tutors can provide personalised instruction and feedback to students, potentially improving educational outcomes.
- Cons: There are concerns about the reliability and accuracy of the AI technology, particularly in understanding and responding to students' individual needs. There are also concerns about the impact of the technology on employment in the education sector. Ethical concerns include issues of access to the technology for marginalised communities and issues of bias and discrimination in the AI's assessment of student performance.

4. **AI-Powered Assistants**

- Description: The use of AI technology to power virtual assistants, such as those found on smartphones and smart home devices.
- Pros: AI-powered assistants can improve convenience and efficiency in daily tasks, such as scheduling and information retrieval.
- Cons: There are concerns about the privacy implications of having a device constantly listening in on conversations and collecting data. There are also concerns about the reliability of the technology, particularly in understanding and responding to human emotions. Ethical concerns include issues of bias and discrimination, particularly in the areas of language and accent recognition.

5. **AI-Powered Healthcare**

- Description: The use of AI technology to assist in the diagnosis and treatment of patients in the healthcare sector.
- Pros: AI-powered healthcare can improve the efficiency and accuracy of medical diagnoses, potentially improving patient outcomes.
- Cons: There are concerns about the reliability and accuracy of the AI technology, particularly in understanding and responding to individual patient needs. There are also concerns about the impact of the technology on employment in the healthcare sector. Ethical concerns include issues of bias and discrimination in the AI's assessment of patient's health.

6. **AI-Powered Finance**

- Description: The use of AI technology to assist in financial decision making, such as investment and credit decisions.
- Pros: AI-powered finance can improve the efficiency and accuracy of financial decision making, potentially reducing risks.
- Cons: There are concerns about the reliability and accuracy of the AI technology, particularly in understanding and responding to individual financial needs. There are also concerns about the impact of the technology on employment in the finance sector. Ethical concerns include issues of bias and discrimination in the AI's assessment

Activity Title: "Ethical Decision Making in AI"

- Learning Intention 1: Students will understand the importance of ethical decision making in the development and implementation of AI technology.
- Learning Intention 2: Students will be able to identify and analyse potential ethical issues in a given AI scenario.

Activity Description:

1. Begin the lesson by introducing the concept of ethical decision making in AI and its importance.
2. Divide the class into small groups and provide each group with a different AI scenario (e.g. facial recognition technology in law enforcement, self-driving cars, AI-powered virtual assistants).
3. Have each group brainstorm potential ethical issues that may arise from the implementation of the AI technology in their scenario.
4. Each group will then present their findings to the class and engage in a class discussion on the potential ethical issues identified by each group.
5. As a class, generate a list of best practices for ethical decision making in AI development and implementation.
6. As an extension, students can research real-life cases where ethical issues have arisen in AI and present it to the class.