

**Thème 3 – Une histoire du vivant**

**L'intelligence artificielle**

**Driverless cars: Who should die in a crash?**

**With those documents and your scientific knowledge, show how self driving cars can present advantages but also develop ethical problems ( how do they handle these problems?).**

**Document 1 : Self driving cars benefits**

According to a study by the U.S. Department of Transportation's National Highway Traffic Safety Administration, over 90 percent of accidents on the road are the cause of driver error. Although there are often other factors at play, such as distractions due to weather or other vehicles, physical limitations like eyesight and reaction time are common reasons for car accidents. Other reasons include drivers simply not paying attention and being distracted on their phones or with the radio; however, because the overwhelming problem appears to be the driver, car manufacturers and technology experts believe autonomous vehicles may be safer than those driven by people.

headstuff.org, February 26, 2019

**Document 2 : Moral Machine : Test the ethical MIT (Massachusetts Institute of Technology) survey with self-driving scenarios**

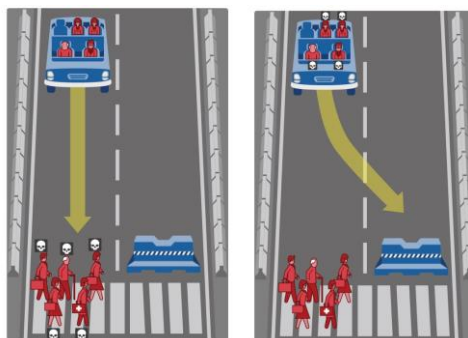
The MIT Media Lab started a few years ago a very interesting survey website called Moral Machine, supported by The Ethics and Governance of Artificial Intelligence Fund. The research project, led by Iyad Rahwan, Jean-Francois Bonnefon and Azim Shariff, presents participants with different scenarios in which the self-driving car must make decisions (...).

So far, over 40 million respondents from various countries have answered the survey, allowing cross-cultural insights (...).

More and more our lives will be impacted by algorithms making decisions "by themselves". From films we decide to watch, to food we order, to whom we interact online and also, depending on the situation, if we survive or not.

liveinnovation.org, January 7, 2020.

**Document 3 : Example of a driving scenario.**



MoralMachine.mit.edu.

## Teacher's corner :

### Doc 1 :

Advantages : over 90 percent of accidents on the road are the cause of driver error + other factors : weather, eyesight, reaction time, phones, radio

Without self-driving cars the main problem seems to be the driver. Indeed, car manufacturers and technology experts believe autonomous vehicles may be safer than those driven by people

### Doc 2 :

What is machine moral : it's an online experimental platform designed to explore the moral dilemmas faced by autonomous vehicles. This platform gathered 40 million decisions in ten languages from millions of people in 233 countries and territories.

### Doc 3 :

On the left picture : Self driving car determine to impact with pedestrians and 5 of them died / on the right picture : self driving car decided to impact the block and 2 passengers died.

## Other possible questions :

- what is your opinion on this intelligent car ?
- Should the car favor its owner? The number of people involved? Those who are not at fault? Should the age criteria or social status be taken into account?
- Who should be responsible in the event of an accident ? driver, car manufacturer, programmer ...?
- Do you know other examples of artificial intelligence that can develop ethical problems?
- What do you think about protecting personal data ?