Adoption of Self-Driving Cars

For Mains: The Moral Dilemmas Faced by Self-Driving Cars

Why in News?

In a series of lawsuits and a criminal case arising out of fatal Tesla accidents, **Tesla faces its biggest challenge since launching Autopilot in 2015.**

What are the Moral Dilemmas Self-Driving Cars Face?

- **Predetermined Decisions:**
    - Self-driving cars are **basically robots that have been programmed using algorithms.** So, they are most likely to follow set rules or patterns in all cases.
- **Giving Control to the Driver:**
    - One of the biggest dilemmas of self-driving cars is **whether it would be right to hand over the control to the driver at the last instant.**
    - This will not only raise a question about the ethics of self-driving cars but also about the ethics of the driver.
- **Rightful Deciders of the Ethics of Self-Driving Cars:**
    - There is a debate about who should decide the ethics of self-driving cars, according to some.
    - It can be **argued that no one is the right owner to decide the ethics of self-driving cases.** The decision must lie in the hands of the driver of the car.
- **Program the Car to Make an Impartial Decision:**
    - Some also argue that the best way for a **self-driving car is to make an impartial decision in case of accidents.**
    - They **must not discriminate between humans based on age, gender, or other parameters.** They should always make the decision that causes the least impact.
- **The Hacking Dilemma:**
    - There is **always a risk of a cyber-criminal hacking** into the car's system to gain access to sensitive data or to carry out a misdeed.
    - For example, what **if the autonomous car is hacked by a cybercriminal and commanded to carry out an accident** to implicate the driver?

What are Self Driving Cars or Autonomous Cars?

- **About:**
    - An autonomous car is a **vehicle capable of sensing its environment and operating without human involvement.**
    - A **human passenger is not required to take control of the vehicle** at any time, nor is a human passenger required to be present in the vehicle at all.
    - An autonomous car can go anywhere a traditional car goes and do everything that an experienced human driver does.
- **Benefits:**

- Reduce traffic congestion
- Cut transportation costs by 40%
- Improve walkability and livability
- Free up parking lots for other uses
- Reduce urban CO2 emissions by 80% worldwide

Way Forward

As the debate around the topic intensifies due to the increasing adoption of self-driving cars, it is **hoped that strict laws and regulations will be developed** that can finally answer the questions in a correct, justifiable manner.

Source: TH

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