

Principles: Proportionality and do no harm, Safety and security, Privacy, Human oversight and determination, Transparency and explainability, Responsibility and accountability, Awareness and literacy

Values: Ensuring diversity and inclusiveness, Living in harmony and peace

Stakeholders: Civil society, Public sector, Private sector, Academia, Technical community

Smart car's system malfunction put passengers at risk

A new smart electronic car has been developed with a brain exclusively powered by Google. The goal is to have a safer and greener car but also be able to experience all the advantages of an assistance system while driving.

Its operating system controls everything in the car from the radio to the navigation. The car is ordered by voice commanded and can drive itself.

During a drive, the car suddenly takes control of the driving and doesn't obey the driver anymore. The central touchscreen stops working and the main system starts rebooting itself. Eventually, it goes in the wrong direction and collides into another car. The drivers are luckily safe but traumatized.

The car is analyzed by specialist that find that the system hadn't undergone the latest connectivity software.

AI is still a domain that has to be secured and many problems can still appear when used. It is important when putting an AI product on the market to ensure its safety to the users. Furthermore, it is important to remember that AI should always be under human control and giving them the possibility to always take the upper hand on the technology.

How could this situation have been avoided in the first place?

Here are our recommendations per stakeholder:

- The technical community should go over the system and set up a backup in case the car starts does not work. The connectivity of the car is made less important in its functioning so that it doesn't cause more problems in the future.
- Governments and international / regional organizations should implement policies monitoring the use of AI as to ensure its safety to the public.
- Civil society should, before buy an AI, know the risk and dangers that could come out of this.

Privacy & Responsibility and accountability & Safety and security & Privacy

Know more about this case:

- À Fond, 2016, https://www.allocine.fr/film/fichefilm_gen_cfilm=240842.html
- Driving the Polestar 2, the first electric car with a brain by google, The Verge, <https://www.theverge.com/21365032/polestar-2-hands-on-first-drive-ele>

Related work:

- “ENISA good practices for security of smart cars”, European Union Agency for Cybersecurity, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiow676zbTtAhUKHxoKHb8GD_AQFjALegQIBBAC&url=https%3A%2F%2Fwww.enisa.europa.eu%2Fpublications%2Fsmart-cars%2Fat_download%2FfullReport&usg=AOvVaw0mAEewHQfGuGA1GY6dgHQi
- “Your car might be at risk from cyberattacks”, The World Economic Forum, <https://www.weforum.org/agenda/2020/01/car-cyber-attacks-security-transport/>
- “Smart Car Security Threats: Is the Connected Car a Good Idea?” Hitachi Systems Security Inc, <https://www.hitachi-systems-security.com/blog/smart-car-security-threats-is-the-connected-car-a-good-idea/>