

On-line workshop in the framework of
Innovation in Road Safety Research

Thursday 20 May 2021

6TH UN GLOBAL ROAD SAFETY WEEK

17 - 23 May 2021



Streets for Life

#Love30

Which values for future safety technologies?

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Values in road safety



- Reducing harm
- Assuming responsibility
- Individual freedom
- Respect for privacy
- Fairness & equity



Safety vision of new technologies



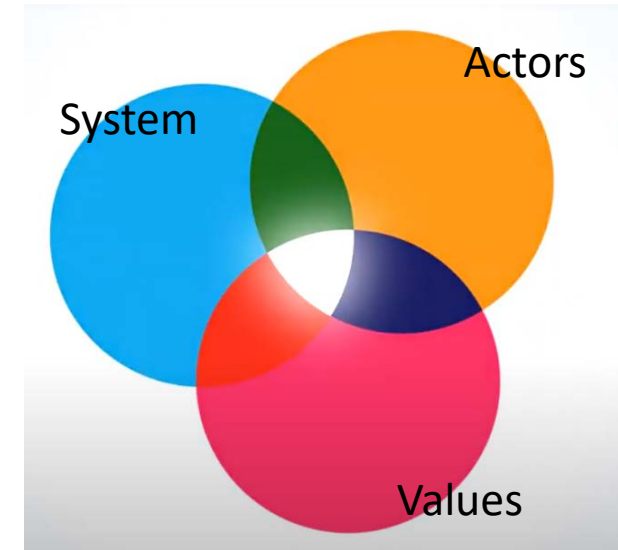
Superior safety is the main “banner value” to promote new vehicle technologies, AI and other digital tools - often together with freedom, privacy and accessibility for all.

- **Can it be responsibly claimed?**
- Evidence is not always sufficient. In many cases improved safety remains to be confirmed, or the mechanism behind it is unclear.
- Risk of misinformation and misaligned trust (dis-trust or over-reliance)
- Is society misled into decisions that serve the interest of companies, rather than citizens'?
- Will then lack of public support preventing road safety innovation?

Responsible innovation

- **Comprehensive engineering:** the value dimension is important for the further development, social acceptance and moral acceptability of technological innovations.
- **Responsible innovation:** an alternative paradigm

“The choice should not be between foregoing a potentially helpful innovation, or “pushing it” despite justified concerns. Instead, pay attention to important values, in the design, in the implementation of innovations, but also in the institutions that govern them”



Safety as a design value



- **How safe is safe enough?**
- Should developers / end-users be free to decide their acceptable safety level?



Data-driven approach: should new safety technologies mimic human behaviour?

- ...can we accept the imperfect decision making of humans?



Or is an **expert-based safety standard** to be defined?

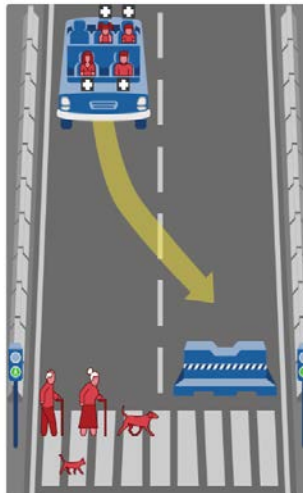
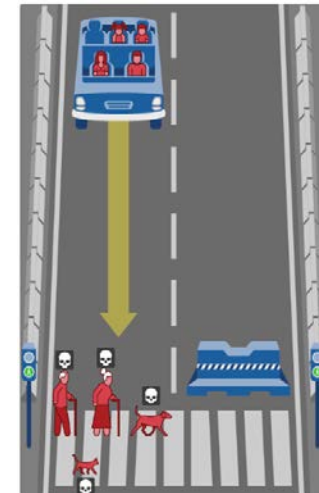
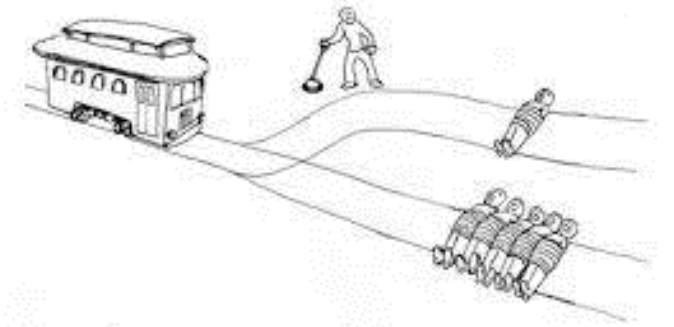
-but experts are humans too, so new biases etc...



Responsibility & freedom



- **Ethical responsibility of ‘machines’ & algorithms**
- Who has the moral authority to make decisions when human lives are at stake?
 - From the old trolley problem...
 - ...to “[moral machines](#)” experiments
- An ethical answer? By design, machines and algorithms should never *be found* in this type of situation!
- This type of dilemmas are not always a meaningful reflection on values...



Fairness & equity



- **Fair distribution of benefits**
- Will new technologies support mobility and safety of impaired and disadvantaged groups?
- Will car occupants still be better protected than vulnerable road users (pedestrians, cyclists)?
- Will the benefits of new technologies go to industrialised countries only?



Towards ethical safety technologies

- **Safety 2.0:** from “what can go wrong” to “as many things as possible go right”
- Open and democratic deliberation on **values**
- **Shared responsibility** – [“meaningful human control”](#)
- Visioning of safety **consequences**
- Safety benefits **accessible** to all



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