Automated Driving and Human Responsibility

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“COMPREHENSIVE ENGINEERING”

Engineering Systems and Services

Multi-Actor Systems

Values, Technology and Innovation

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SAFETY

REQUIRES

HUMAN RESPONSIBILITY
Rather than reducing or eliminating human responsibility, the use of CAVs will redistribute responsibilities across the network of human individuals and organisations involved in their manufacture, deployment, and use.
RESPONSIBILITY (GAPS)

(LEGAL) CULPABILITY

MORAL ACCOUNTABILITY

PUBLIC ACCOUNTABILITY

ACTIVE RESPONSIBILITY
Creating a “culture of responsibility”
RESPONSIBILITY REQUIRES "MEANINGFUL HUMAN CONTROL"
Meaningful Human Control over Automated Driving Systems

Filippo Santoni de Sio, Giulio Mecacci, Bart van Arem, Simeon Calvert, Marjan Hagenzieker, Daniël Heikoop
… so much more than robot-dilemmas

What is MHC?
How to design with MHC?
How can humans execute MHC?

Use cases

Behavioral psychology

Traffic engineering

Ethics & Philosophy
Varieties of control

“Dumb” systems

Intelligent systems
Meaningful human control

Alignment between AVs and relevant human *reasons* (values, norms, intentions) human (moral) *capacities*
Some practical implications:

- Interests of all road users
- Public v private interests
- Democratic deliberation
- Drivers’ capacities
- Companies’ culture
- Engineering education
- …


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