

RS3: Unfolding the AV Dream

Security Node, Lancaster University, Cranfield University
RS3



Engineering and Physical Sciences Research Council



Context

As part of the TAS Security Node, our work at Lancaster examines the User environment of Autonomous Systems (AS) particularly Autonomous Vehicles (AVs).

At Cranfield, we look at how and why the individual trust/use/accept autonomous technology like AVs, if the forecasts of safety of AVs can be trusted, and if behavioural adaptation (contra-productive actions) happens in AVs.

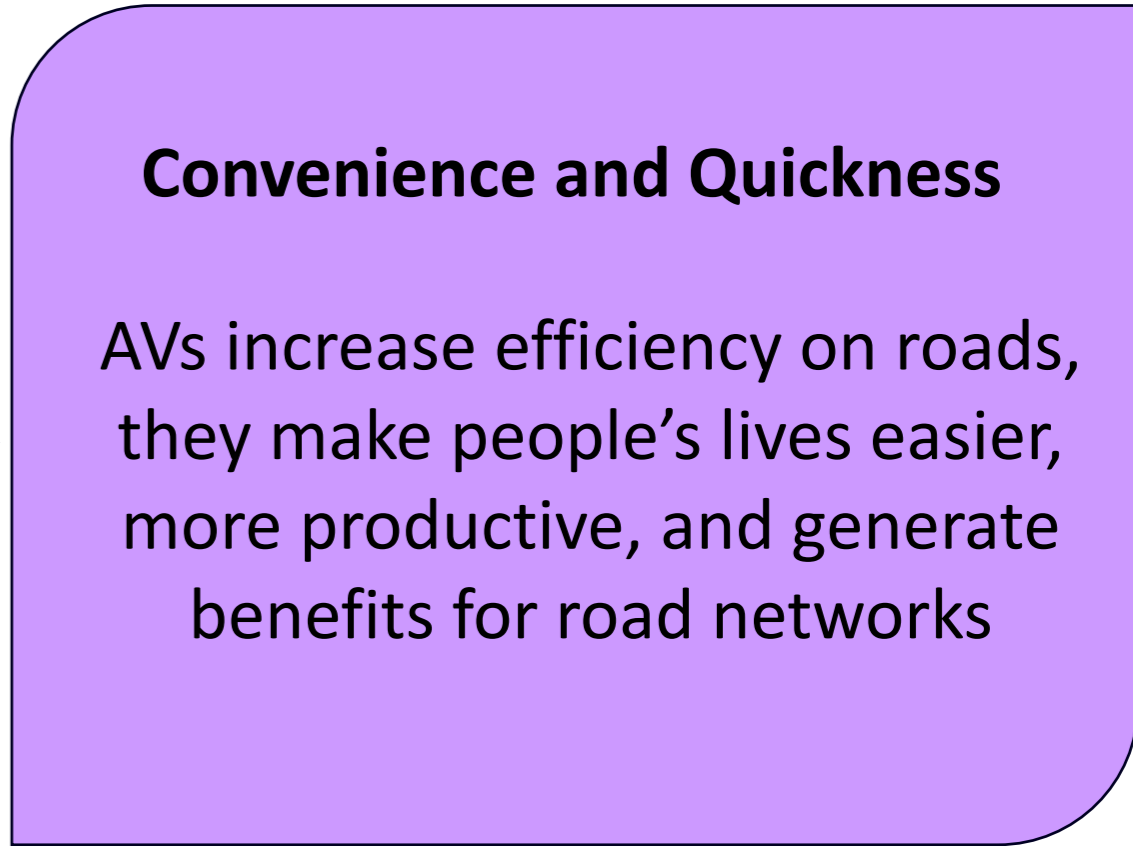
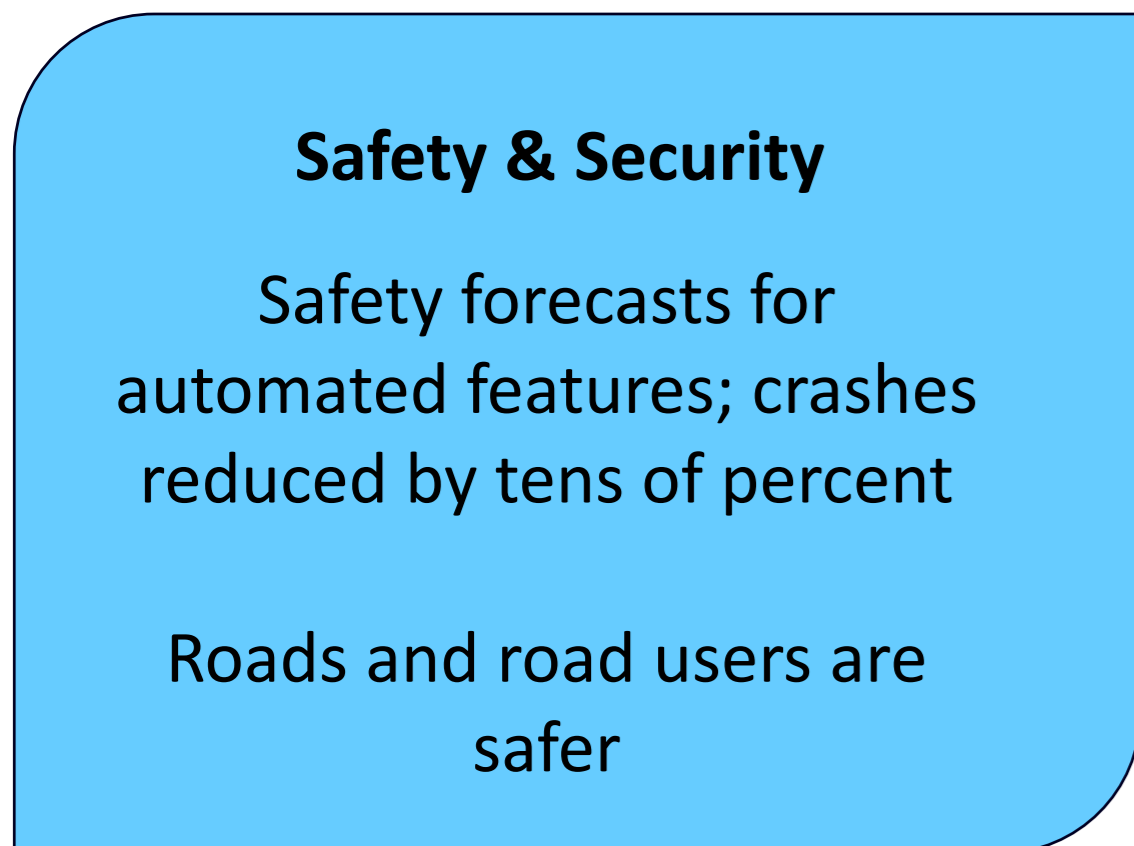
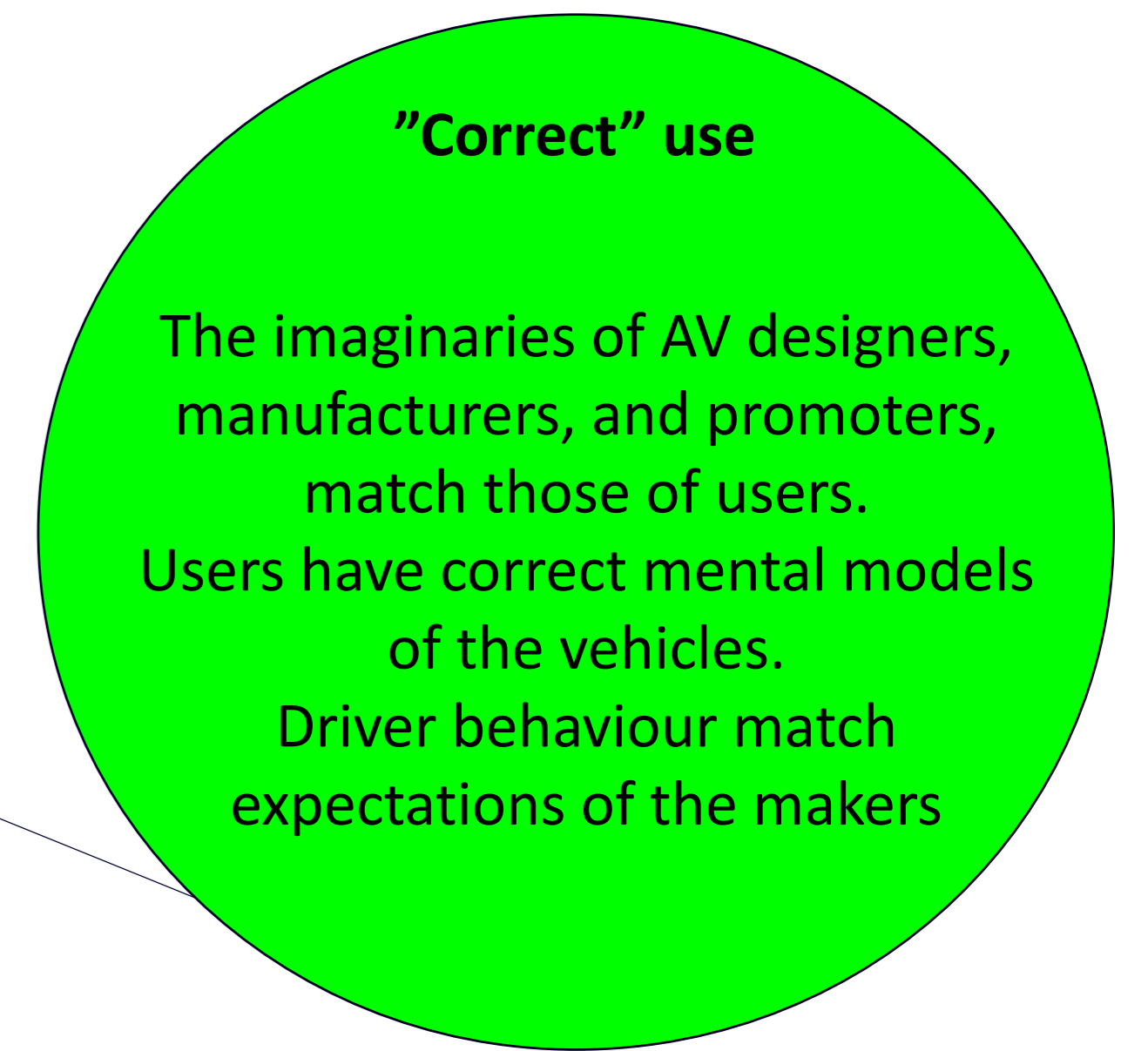
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The AV dream



Description of map

The AV reality



Stockholm shuttle
Running since 2018
Six passenger seats
No seat for the safety driver
20 km/h max
Brakes hard for unknown reasons
Stops at every junction for OK from driver
10-15 passengers/day
Service a limited area like a taxi

Have autonomous features of vehicles delivered expected safety gains, or has behavioural adaptation countered the effects?

Cranfield field study on behavioural adaptation using a Tesla postponed because the Autopilot feature of the car malfunctioned.

Do people trust AVs? Why not?

Tesla crash



This vision from the fifties has still not come true



Security & Ethics

These evolving realities open opportunities for rethinking technological imaginaries. Working with communities of potential users can help researchers understand, not just how they may or may not **adapt**, but what they **actually want and need** in their region.

Other ways of doing AS: Indigenous Protocols

One value from engagements with National Highways is Two-Spirit: encompassing bodily and intellectual relationships with AS technologies

Āina, from the Hawaiian for 'land'

AI as Āina: 'we should treat these relations as we would all that nourishes and supports us.' (Lewis et al., 2018)

