

Nicholas Luker submission

Received 23 May 2024



Hello NTC

I have just read the Automated vehicle safety reforms paper and have some observations/suggestions

The first is in regard to an ADS responding to a direction given by a first responder or law enforcement officer. The obvious way to ensure that the ADS responds to a police officer or a first responder would be for the ADS to respond to a QR code that was assigned or generated for the first responders dynamically. The issue could be that an ADS responds to someone that the ADS interpreted as a first responder but actually was not. If the ADS was programmed to respond to a QR code on a mobile phone or other device that was dynamically generated, this would guarantee that only authorised people could direct the vehicle. Having the QR code dynamically generated would ensure that the code could not be copied or illegally obtained by a simple screenshot.

My second observation was in regards to authorised repairs. Independent service organisations such as Ultratune etc do provide competition within the market, so their role in servicing ADS vehicles should be encouraged.

One of the ways to ensure that repair or service work was carried out to the appropriate standard on an ADS would be through the use of advanced self diagnostics.

The vehicle could be instructed to do a full self diagnostic test and then a road test with the mechanic aboard to intervene if necessary.

This test would prove that the vehicle had been repaired satisfactorily, was safe to return to the road and that the service company had met its legal obligations to repair the vehicle to the appropriate standard.

My next observation was in regard to interference of an ADS vehicle. The document concentrated on events such as hacking.

My concern is about road users.

Events such as brake checking, forceful merger actions when 2 lanes merge, or tail gating are unpleasant and often dangerous experiences even when the driver is an experienced and mature road user.

Obviously if you are a passenger in a car when this happens, the driver will issue a warning to the passengers.

If you are a passenger in an ADS vehicle or robotaxi lost in the world of social media or work emails , then the experience would be very unpleasant and alarming.

Being brake checked while doing 110km/h on a freeway in a robotaxi by someone who thinks self driving cars are the enemy would not be fun, especially as a passenger in a robotaxi would be engrossed in there phone or laptop and not be paying attention to the road An ADS vehicle due to its programming to have good road manners could possibly be very susceptible to this type of aggressive road behaviour especially heavy vehicles where on time delivery is usually essential

Having this type of behaviour to an ADS carry a heavy penalty would seem to be worth considering.

My next observation and probably my last for now is road repairs Road repairs or diversions would need to be clearly marked to a national standard such that ADS vehicles could safely navigate them recently on Bells line of road in NSW there have been extensive road works for non Sydney readers of this email it is a major secondary link over the Blue mountains and on to Lithgow and Orange etc The road repairs were severely impacted by the heavy rains in the last fortnight and the work was stopped for periods at a time The resulting road surface and lack of lane marking and witches hats made this challenging to drive in the day time and extremely difficult at night especially in the rain

If road repairs and diversions are all clearly marked and sufficient witches hats are used then there should not be an issue with ADS vehicles or robotaxis navigating these conditions So a national standard of road repair temporary lane marking and witches hat deployment would be essential to the role out of robotaxis and a great aid to other road users as well Road repair companies would have to have this importance explained to them and obviously non compliance would have to carry a fine large enough to ensure compliance to this standard otherwise major transportation interruptions would result as ADS vehicles or trucks would presumably pull over and stop

Yours

Nick Luker

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