

Driverless cars offer new forms of control – no wonder governments are keen

June 22 2018, by Neil McBride



Credit: AI-generated image ([disclaimer](#))

Imagine a state-of-the-art driverless car is zipping along a road with a disabled 90-year-old-passenger. A young mother with a toddler steps into the road. The car must make a decision: drive into the mother and child and kill them, or career into a wall and kill the passenger.

This is a variation of the trolley problem, which dominates academic and popular thinking about the ethics of driverless cars. The problem is that such debates not only dismiss the complexity of the system in which driverless cars will exist, but are really moral red herrings. The real ethical issues lie in the politics and power concerns with driverless cars.

Governments across the world are taking a deep interest in driverless cars. The German [government](#) has produced ethical guidelines for driverless cars. The [UK government](#) has promised driverless cars on the road by 2021, and the [Russian government](#) by the end of 2018. [China](#) has ambitious plans to connect driverless cars to the internet and install sensors in roads and traffic lights by 2025.

Most revealing is the way driverless cars feature in the EU's [white paper on the future of Europe](#) in 2025, published in March 2017. They form a telling part of a snapshot of how Europe might look in a future where EU countries have effectively joined to become one federal superstate. In this scenario, the white paper says, driverless cars will flourish, flitting unhindered across borders from city to city.

There's a reason why governments are so keen on driverless cars – and it's not just because of the potential economic benefits. They offer the chance for even greater tracking and even control of citizens' every move. Far from setting us free, driverless cars threaten to help enable new forms of surveillance and oppression.

A [driverless car](#) is a [computer on wheels](#), the ultimate internet-connected mobile device. Bristling with sensors, it provides a constant two-way flow of information. The car sends information about its performance to the manufacturer. It receives software updates, control signals about adjustments to its behaviour. The manufacturer knows where the car is, what the road conditions and temperature are and how the vehicle is performing at a particular speed.

The [car's insurer](#) may receive minute-by-minute information about the car's state, location, speed and the condition of the road it's on, and could vary the insurance accordingly. It could even give ten minutes' warning of loss of cover and halt the car.

Meanwhile, government databases will also be likely to know where the car is, whether it is meant to be there and where it's going. And even, using [predictive analytics](#), where it will go for its next journey. Smart motorways will manage flows of traffic, slowing down driverless cars as part of a stream of communication between the car and the road. In smart cities, traffic lights will reroute cars into detours according to calculations and predictions about traffic jams, road works, or state requirements.



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Markets in fast routes through cities and to central destinations may be created. Companies may pay for employees to use priority virtual routes. Travel logs may make it quite clear where you've gone and when. Reasons for your journey may be inferred predictably from the landscape, from destinations and from timing.

End of autonomy

For more than 130 years, cars have represented the ultimate in autonomy, individuality and democratic freedom. Our car trips are private and anonymous. We can go where we like and when we like. We don't have to tell anybody. And we retain responsibility for whether we obey the law. Driverless cars will bring that to an end.

Now manufacturers, governments and city authorities will know where we're going, what we're doing and when. If anyone doesn't like what we're doing, they will be able to stop us, withdraw technical and accident cover, stop us using particular roads or streets, or just shut us down. It won't be the car that's autonomous but the authorities and systems that run and maintain that car, that draw and send information to and from the car.

Driverless cars will herald a new age of citizen control. In the rhetoric of making us safer and reducing risk, power will be taken away and delivered to central authorities – whether they are cities, governments or commissions. To render us safe, governments will leave us powerless.

Now the controllers can simply change our route for their own purposes, whether to prevent traffic jams or to clear a route for a dignitary. Now they can send us to particular shops, or directly to a police station. Now the controllers can manage populations of cars to meet the purposes of the council or government.

In a democratic state, the growing flow of personalised information towards centralised authority will provides the basis for the regulation and enforcement. Its new managed citizens will be the target for behavioural nudges and advertising flowing into the driverless car. In the dictatorial state, the authorities can stop you going to a demonstration, or stop you going to church.

And such centrally managed systems, which will be essential for the safety of driverless cars, are not only open to the inevitable technology failures of complex systems, but also to [hacking](#) and attacks by other states and individuals. Why hack into one car, when you can hack into a whole city system and bring traffic to a halt, or crash 30,000 cars into each other?

In reflecting on the ethics of driverless cars we need to move beyond the constraints of trolleys and levers to a wider agenda that addresses the concepts of [autonomy, community, transparency, identity, value and empathy](#). Our ethical debate has to address the power shifts, the political responsibilities and the human rights that our vision of driverless cars may require to be sacrificed.

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