

Are we on the right road to driverless cars?

April 2 2019, by David Bradley



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There is much ongoing research into autonomous road vehicles and experimental cars and heavy-goods vehicles have already hit the roads. A paper published in the *International Journal of Automotive Technology and Management* examines some of the myths associated with driverless vehicles and analyses the route that we might navigate to a new transport destination – the autonomous mobility paradigm.

Alexandros Nikitas, Eric Tchouamou Njoya, and Samir Dani suggest that "Connected and autonomous vehicles (CAVs) could become the most powerful mobility intervention." Unfortunately, despite the paradigm-shifting impact on traffic safety, economics, the environment, social inclusion, and network performance, there are still many complications associated with acceptance by the industry, policymakers, drivers, and passengers to be addressed before this new transport becomes the norm.

The team recognizes that there is a pressing need to frame an unproven, disruptive, and life-changing intervention, against the conventional automobile technologies without generating new misconceptions, overreaching expectations, and with sufficient room to accommodate predictive errors and avoiding hyperbole. If the benefits of this paradigm shift are to be wrought. They discuss 11 myths surrounding connected and autonomous vehicles

- Enhanced traffic safety and accident prevention
- Better security more monitoring and control of the vehicles of the new travel eco-system
- Reduced <u>traffic congestion</u> due to more efficient mobility and parking management.
- Significant time savings people can use in-vehicle time to be more productive.



- Smoother rides, more cabin space and more relaxed traveling
- Environmental benefits including less CO₂ emissions due to CAVs eco-driving capacity
- Decreased noise nuisance CAVs will have more noiseless engines and drive unobtrusively
- Reduced <u>energy consumption</u> and fossil fuel dependence due to CAVs eco-driving capacity
- Huge car-sharing and demand-responsive public transport potential.
- Fewer layers of social exclusion less age, disability and skill barriers in 'driving' a <u>vehicle</u>
- Smaller enforcing, policing, insurance premiums and road signage requirements

Their paper tests these 11 myths that perhaps refer to an overly optimistic CAV development and adoption timeline. By taking this approach they have highlighted unresolved issues that need to be addressed before an inescapable transition can happen. They thus provide relevant policy recommendations on how it might ultimately become achievable.

More information: Alexandros Nikitas et al. Examining the myths of connected and autonomous vehicles: analysing the pathway to a driverless mobility paradigm, *International Journal of Automotive Technology and Management* (2019). DOI: 10.1504/IJATM.2019.098513

Provided by Inderscience

Citation: Are we on the right road to driverless cars? (2019, April 2) retrieved 25 April 2024 from <u>https://phys.org/news/2019-04-road-driverless-cars.html</u>



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