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Précis Paper

The Road to Well-Considered Policy: The Introduction of Self-Driving Vehicles to the Mass Market

A discussion about self-driving vehicles, legal complications likely to arise, and how Australia might prepare itself for their inevitable rollout

Discussion Includes

- What is a self-driving vehicle?
- Is the shift towards self-driving vehicles inevitable? And how might insurers benefit?
- Determining liability in accidents involving self-driving cars
- Storing collision data & privacy issues
- Relevance for practitioners

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The Road to Well-Considered Policy: The Introduction of Self-Driving Vehicles to the Mass Market

1. In this edition of BenchTV, Olivia Mailian (Partner, Carroll & O'Dea Lawyers, Sydney) and Corinne Deall (Solicitor, AR Conolly & Company Lawyers, Sydney) discuss self-driving vehicles, the legal complications likely to arise, and how Australia might prepare itself for their inevitable rollout.

What is a self-driving vehicle?

2. A self-driving vehicle is a vehicle with some level of automation. Ideally, if a person gets in at point A wanting to get to point B, the car can get there independent of the person driving it – independent here meaning that the car will take into consideration other vehicles on the road, pedestrians, infrastructure, weather, etc.

3. In the 1950s, Chrysler developed cruise control. In the 1960s, the American government set up a grant until about 1985 for entrepreneurs and companies to develop self-driving cars. No one was successful.

4. Since then, we have had developments such as anti-lock braking, lane departure controls, video cameras for the purpose of parking, etc. So we already have vehicles on the road with some level of automation, just not quite yet any that can take us from point A to point B without our having to do anything. But we now have vehicles with such levels of automation that the Society of Automotive Engineers (SAE) has had to develop six levels of categorisation, starting at category 0, ending at category 5.

5. Category 0 is no automation; category 5 is complete automation. The main difference at the moment is between level 3 and 4, whereby in category 3, the driver still has some control over the vehicle (conditional automation), but in category 4, the dynamic controls of the vehicle are taken over by the system itself, not the driver – i.e. the system takes care of changing lanes, parking, breaking, acceleration, etc., not the driver.

Is the shift towards self-driving vehicles inevitable? And how might insurers benefit?

6. Given that we all drive automated vehicles to some extent, the move towards self-driving vehicles is indeed inevitable.

7. A US study published by KPMG in 2017 revealed a direct correlation between the increase in automation in vehicles and the decrease in the number of accidents on the road. In the same

study, it was projected that by 2050 there would be a reduction of about 90% of accidents on the road, which would lead to about a 63% reduction in overall costs.

8. So there is potential for both road users and insurers to greatly benefit from this.

Determining liability in accidents involving self-driving cars

9. Under the *Motor Accident Injuries Act 2017* (NSW), a driver is defined as 'somebody who is in charge of a vehicle'.

10. It is quite easy to determine who the driver of an automated vehicle is in the categories from 0 to 3. But between the categories of 4 and 5, the task becomes much more complex.

11. There would be question over whether a person involved in an accident in a category 5 vehicle is a passenger or driver. Whether in such circumstances our personal injuries system under the *Motor Accident Injuries Act 2017* (NSW) will be capable of picking up a claim, or whether by default the claim will become a product liability claim against the manufacturer of the vehicle, remains to be seen.

12. Another issue that will have to be determined is whether or not the accident occurred as a result of vehicle-to-vehicle technology or vehicle-to-infrastructure technology.

13. Vehicle-to-vehicle technology is essentially the technology within the system that takes in data from other self-driving vehicles around it and processes the data so as to avoid accidents. Vehicle-to-infrastructure technology takes into account the infrastructure around the vehicle, such as roads, kerbs, signage, pedestrians etc. and processes this data so as to avoid accidents.

14. Without knowing how this technology works, we cannot know the cause of an accident, i.e. whether it was the driver (person) who took control of the system to cause the accident, or whether it was an error in interpretation by the system itself of either the vehicle-to-vehicle or vehicle-to-infrastructure data.

15. Vehicle-to-infrastructure technology presents a big issue over the normal wear and tear that is naturally endured by infrastructure, and will necessarily give rise to questions over what responsibility councils will come to share in any accidents that arise as a result of the failure of vehicle-to-infrastructure technology itself a result of unmaintained infrastructure, and whether or not councils will be afforded protection under s 42 of the *Civil Liability Act 2002* (NSW).

Storing collision data & privacy issues

16. The cars that we have on our roads today (if they are newer models) have SRS (Supplemental Restraint System) and ACM (Airbag Control Monitor) technology, which records certain information prior to collision. This information can include whether or not the brakes are working, whether the car was in park mode, whether the driver had its seat belt on, etc.

17. We use what is called the Bosch Crash Data Retrieval system to take in all this information and to interpret it.

18. The Australian National Transport Commission has identified about 716 potential issues with self-driving vehicles, including:
    - privacy
    - fraud
    - regulation

19. So whilst we are mindful of the information that we provide to corporations, it is inevitable that we will have to relinquish at least some of the data, like location-tracking information for example. What happens with this data is another story.

20. Issues will arise over whether this information can be sold to third parties for the purposes of marketing.

Relevance for practitioners

21. The current legislation, at least in NSW, has not yet grappled with the upcoming technology involved with self-driving vehicles.

22. We have an advantage in that we can look to the US experience and learn from that. The US has about 90 self-driving vehicles currently on the road, and this number is expected to increase over the coming years.

23. We can look at what laws and regulations are passed in the US, and learn from where they go wrong.

24. There are currently no international standards in place that deal with self-driving vehicles. In their absence, the roll out of self-driving vehicles in Australia will be a great challenge.

BIOGRAPHY

Olivia Mailian

Partner, Carroll O'Dea Lawyers, Sydney

Olivia was admitted as a lawyer in 2008. Prior to this, she worked in journalism and public relations setting the foundation for her legal practice. Olivia practices in NSW and the ACT and has in-depth knowledge of the applicable statutes in both jurisdictions. She also supports the Carroll & O'Dea Lawyers pro-bono scheme and is involved in many community initiatives.

Corinne Deall

Solicitor, AR Conolly & Company Lawyers

Corinne is a solicitor of A R Conolly and Company Lawyers with advocacy experience in the NSW Civil and Administrative Tribunal. She graduated with a Bachelor of Laws with Honours and a Bachelor of Arts - Psychology from Macquarie University. Corinne is passionate about commercial litigation and is particularly interested in insurance.

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