AI Guides

Automated Vehicles

Automated vehicles (AVs), being vehicles which are capable of operation without complete reliance on a human controller, are becoming increasingly prevalent.

Low level AVs have been in operation for decades. Cruise control is an example of a feature which shifts some level of responsibility for control of a vehicle away from the driver. A horse is an early example of an autonomous transport device.

However, AVs with higher levels of automation are being developed and released, posing new opportunities and new challenges. While concerns about security, liability and job losses are justified, AVs will boost productivity, increase safety and give individuals the freedom to engage in more meaningful pursuits.

Beyond driverless cars, a multitude of applications exist for AVs. These include:

- drones which map mine sites and AVs which conduct dangerous excavations
- use of AVs to navigate inhospitable environments, such as outer space and the deep sea

- integration of AVs into the supply chain to move goods within and between sites
- use of AVs by the military to defuse bombs in the place of humans
- AVs which plant, monitor and harvest crops

Various players are likely to be involved in the production of AVs, including manufacturers, software developers and other services providers (collectively, 'producers'). As a result, if an AV is involved in an incident and causes damage or injury, it may be difficult to determine the exact cause of the incident.

Consider for instance a situation in which an autonomous car crashes into a guardrail on a highway. At the time of the crash, the car was in fully-automated

mode but had issued a warning to its human occupant about the upcoming obstacle.

Who is at fault here? The driver for failing to take back control? The producer who developed the vehicle's software to respond as it did? The authority responsible for designing the road and guardrail? Or another party entirely?

These questions have profound implications for product liability, insurance and attribution of both civil and criminal responsibility.

A number of solutions have been proposed to address the problem of liability for AVs. For example, either the owner or primary producer could be made strictly liable for each AV and be required to take out appropriate insurance. Legislation could also be

enacted to mandate the type of data which must be captured and stored by AVs. To ensure the security of this data, producers could be required to equip their AVs with blockchain-like systems which create immutable, chronological records.

There are also concerns that AVs may be exploited for malicious ends. AVs could be used to perpetrate terrorist attacks and hackers could thwart the cybersecurity efforts of producers to steal data or even seize control of an AV.

Despite these issues, the continued proliferation of AVs is inevitable and should be welcomed. Automated cars could dramatically reduce the damage, injuries and fatalities caused by human drivers on roads every day. AVs could be used to conduct dangerous mining or rescue operations that would otherwise pose a risk to human life. Massive productivity gains could be achieved in supply chain operations and previously unexplored environments could be studied.

The AI Guides are authored by:

John Swinson
Partner, Brisbane
T +61 7 3244 8050
john.swinson@au.kwm.com

Rebecca Slater
Senior Associate, Brisbane
T +61 7 3244 8147
rebecca.slater@au.kwm.com

Kendra Fouracre
Senior Associate, Melbourne
T +61 3 9643 4105
kendra.fouracre@au.kwm.com