

Managing the driver distraction risk posed by technology: Changes to Australian road laws aimed at driver behaviour

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Abstract:

Achieving national agreement and harmonisation on a technology neutral approach to road use policy in the Australian Federal system of government presented a unique set of challenges within a complex stakeholder environment.

Informed by the work of the National Transport Commission, Australian transport ministers have now approved a national policy- and subsequent amendments to the Australian Road Rules (ARR) – to address all sources of distraction while driving and provide a technology neutral approach to regulating interactions with technology. The policy is designed to manage the distraction risks posed by technology while encouraging innovation and ensuring technology that has the potential to improve safety is not constrained. The agreed policy encompasses a hybrid approach, using both prescriptive and performance-based rules, to clarify safe and unsafe interactions with technology. The policy intent is to reduce the road crash risk associated with driver distraction and provide better outcomes for road users regardless of the technology used.

The policy addresses the problem in the model Australian Road Rules (ARRs), through which uniform rules are prescribed for all road users across Australia, about the lack of clearly identified distracting activities that affect driving performance.

Amendments to the ARRs deliver on the national policy. Broadly the amendments include-

- **a broad prohibition to use technology (while the vehicle is moving or stationary but not parked), with lower risk interactions permitted by exception with inbuilt and mounted devices and motorcycle helmets**
- **prohibition of all physical interactions and restriction of visual interactions with wearable devices**
- **prohibition of all visual and physical interactions with non-mounted portable devices**

The national amendments are currently being adopted within state and territory transport legislation across Australia.

1. Introduction

Since 1999 the Australian Road Rules (ARRs) relating to driver distraction have been the basis for regulatory instruments used in Australia to deter unsafe driver engagement with secondary tasks while driving.

The ARRs regulate a broad range of sources of distraction that impact a driver's ability to maintain proper control and at the same time focus on specific types of technology that cause driver distraction, rather than on distracted driving behaviours and interactions that are known to be most risky from a safety perspective. The specific rules only preclude or limit the use of specific technology devices – mobile phones, visual display units and television receivers – while permitting their use as driver aids.

The ARRs –

- have not kept pace with the arrival of the smartphone and modern technology devices (including those built into the vehicle)
- inconsistently treat the sources of distraction and safety risks associated with certain behaviours
- can be confusing for road users and police regarding what technology devices are legal and illegal to use when driving.

The new Australian approach expands on the status quo, improves the ability to address all sources of distraction and is not limited to interactions with technology. It requires that drivers must ensure safe execution of non-driving-related tasks.

Technology neutral rules in road use regulatory settings for driver distraction in Australia provide an opportunity to encourage innovation and ensure that technology with the potential to improve road safety is not prohibited. Emerging transport technologies can provide opportunities to improve transport productivity and reduce deaths and injuries.

The approved Australian national policy framework for driver distraction focuses on driver behaviour and targets high-risk interactions with technology that are proven to significantly increase crash risk while driving.

It promotes the safe use of technology to operate a vehicle, conduct the professional driving task and navigate with a preference for lower risk audio and voice communication functionalities.

The new ARR's approved by all Australian governments prescribe rules for using electronic devices when driving. The rules cover how a person can interact with devices, what a person can use a device for and what the device may display on a screen. There are different rules depending on the device being used including inbuilt and mounted devices, motorbike helmet devices, wearable devices and portable devices.

Achieving national agreement and harmonisation in the area of road use policy in the Australian Federal system of government, however, presented a unique set of challenges. Each state and territory of Australia has near exclusive responsibility for road transport policy regulation.

Constitutionally, the Australian Commonwealth government has no direct powers of administration in this area unless incidental to another power conferred by the Australian constitution.

Another significant challenge was the need to ensure enforceability of new rules and clear community education about what is and is not allowed with respect to interaction with technology.

The agreed national policy framework and associated legislation represents three years of complex reform consultation and negotiation to produce a set of model rules suitable for implementation across Australia.

2. Australian Policy Approach/Method

The Australian policy approach was underpinned by five broad based principles as follows:

- An overarching requirement for a driver to have proper control of a vehicle to encourage safe use of technology regardless of whether an interaction is prohibited or not.
- Prescriptive rules for drivers are easily understood by the public and law enforcement agencies
- Prescriptive rules for drivers apply to all technology devices capable of wireless communication, electronic data retrieval, and/or displaying electronic data by display or projection

- Prescriptive rules for drivers apply to device interactions and functionalities known to result in an increased crash risk
- Voice-based interactions are permitted. There are no restrictions on voice-based interactions so long as the display is not visible to the driver in the normal driving position.

Based on these principles the national policy offers a suite of regulatory and non-regulatory approaches, including:

- A performance-based road rule – a tool to address both the observable driver and vehicle behaviours that cause and/or indicate the driver's lack of control of a vehicle whether or not the source of the lack of control is based on a driver's interaction with technology.
- Prescriptive road rules – introduction of four new device categories with a short, specific set of permitted and prohibited driver activities with technology addressing high-risk interactions to clarify what the public can and cannot do safely while driving.
- Non-regulatory tools – There are non-regulatory initiatives across the Australian transport system that will support the effectiveness of the changes to the ARR's. These include a safe driving guideline, public education campaigns and nationally-consistent messaging to ensure a shared and consistent understanding about the responsibilities of drivers in relation to driver distraction as well as the intent of the new road rules. This would capture, for example, the obligation on the driver to keep a proper lookout by paying attention to the surrounding road conditions and being able to intervene if required.

The four device categories targeted by the policy include inbuilt/mounted technology, wearables, portables and motorcycle/bicycle helmets.

The prescriptive element in the policy approach aims to encourage the take-up of new technologies (such as enhanced voice-user interfaces) consistent with Australian transport ministers' priority to remove barriers to innovation and embrace new and emerging technologies.

3. The Governance and Stakeholder Environment

Since 2003, through an Intergovernmental Agreement (IGA), Australian States and Territories and the Commonwealth government have committed to improving transport productivity, efficiency, safety and environmental performance and regulatory efficiency in a uniform or nationally consistent manner.

The National Transport Commission (NTC) is responsible for development, maintenance and negotiation of transport related laws as tasked by transport ministers and departments of state. The NTC acts as a body independent of any one

Australian jurisdiction to practically deliver legislation outcomes which removes perceptions of conflict between Australian State and Commonwealth priorities.

Australian governments expect the NTC alongside Australian jurisdictions to lead core law reform. The commitment of Australian governments includes developing nationally consistent regulatory reform arrangements for road transport through the work of the NTC. Where appropriate, these law reforms may be expressed as model legislation so that consistency is promoted and maintained. The legislation for the driver distraction rules is prescribed in this way, and while they have no legal force in and of themselves, it is expected that the parties to the IGA will implement the agreed model legislation into local transport laws so that lawful enforceability and compliance is achieved.

Approval of model legislation requires unanimous agreement of all parties to the IGA. Achieving agreement with respect to national model uniform legislation presents many challenges because of the need to navigate the tension between the desire for a national response to emerging problems and the need to respect the constitutional separation of legislative powers between the Commonwealth and State and Territory jurisdictions.

4. Enforcement Challenges

Before the approval of the national policy and model legislation, the ambiguity of the rules for driver distraction made it difficult for enforcement agencies to identify behaviours that could result in distraction thereby reducing the driver distraction rules' safety benefits.

Australia's new vehicle market is small and therefore vehicle manufacturer's decisions about in-vehicle technologies has a direct effect on the potentially distracting features available to Australian motorists to use while vehicles are in motion or stationary but not parked. This means that enforcement of the road rules is one of the main regulatory tools to minimise driver distraction.

Achieving clarity in the new driver distraction rules was key to ensuring support at the national level. It was essential to ensure to the greatest extent possible the ability for enforcement to determine the applicable rule to the observed driver behaviour and therefore improve enforcement's likelihood to withstand scrutiny if questioned in a court of law.

The use of prescriptive rules seeks to facilitate enforcement by reducing the level of judgement enforcement officers exercise when applying the new rules. In combination with the use of prescriptive rules, the new rules include a performance-based element to target both the causes and consequences of driver engagement in distracting activities generally, regardless of whether they are technology based and not explicitly prohibited by law. The performance-based element is designed to target the effects of distracting activities, as well as the sources of distraction prior to a crash. The approach aims to mitigate the consequences of a wide

range of sources of distraction regardless of whether they are technology-based. A driver's engagement in non-technology-based activities, such as eating or attending to personal hygiene, may cause a driver to drive in a manner determined as failing to have proper control of a vehicle.

Finally, the ability for the new rules to be sufficiently enforceable through photo evidence to align with Australian States and territories automated camera enforcement of illegal mobile phone use was a key priority.

5. Australian Driver Distraction Model Laws

The Model laws approved by all Australian governments prescribe rules for using electronic devices when driving. The rules cover how a person can interact with devices, what a person can use a device for and what the device may display on a screen. There are different rules depending on the device being used (e.g mobile phone, smart watch or a vehicle infotainment system). For all electronic devices, however, the following interactions are prohibited:

- Typing of text or numbers into the device
- Scrolling through any content that is shown on a device's display
- Playing of movies, television shows, video games, animations, or other video content on a device that the driver can view
- Reading of text messages, group chats, emails or viewing of websites on the device
- Looking at social media or making video calls on the device.

The following summarises the rules for the different devices captured by the approved national policy. The rules provide a limited list of permitted interactions with technology, based on those interactions found by research to carry a lower risk of crash, including driver assistance functions such as navigation.

Visual and manual interactions found to carry a higher risk are consistently addressed through a broad prohibition to use technology (while the vehicle is moving or stationary but not parked), with lower risk interactions permitted by exception. It is permitted, however, to touch a device to stop an activity that is prohibited.

This approach is applied as consistently as practicable across four device categories which is a departure from the status quo and indicates what drivers can and cannot do with specific devices.

Inbuilt and mounted devices

Drivers must not touch an inbuilt or mounted device to type text or scroll through what is shown on the screen.

Drivers may interact with an inbuilt or mounted device in certain circumstances, some examples include, operating driving and vehicle systems, making a phone call, using navigation, playing music or other audio.

While a driver is permitted to touch an inbuilt or mounted device, the rules have been developed to only allow short interactions (for example, a single touch to select an option). If a driver needs to use the device for more than a moment, they will need to wait until they can safely pull over and legally park the vehicle.

It is not intended to penalise a driver for prohibited functions enabled by vehicle manufacturers that the driver of a vehicle has no control over.

Motorbike helmet devices

Motorbike riders must not touch a helmet device to type text or scroll through what is shown on a screen.

Riders may interact with the helmet device in certain circumstances, some examples include, , making a phone call, using navigation, playing music or other audio.

Wearable devices

Users of wearable devices must not touch the device to use its apps or functions. However, voice commands can be used to operate the device.

The wearable device can only show the user content about the safety and operation of the vehicle, making a phone call, or playing music.

Navigation and map functions on the device must not be visible to the driver in the normal driving position.

Portable devices

Drivers must not touch or hold a portable device regardless of whether it is on or off.

Drivers must not be able to see anything on the portable device screen from the normal driving position apart from automatic notifications and basic information such as time, date and battery power.

Drivers can use the portable device with hands-free controls provided the driver cannot see the screen from the normal driving position.

6. Conclusion

The agreed Australian position on regulation of driver distraction through law includes a combination of performance-based and prescriptive rules.

This combination provides:

- A clear indication of permitted and prohibited interactions with technology based on high-risk interactions and behaviours identified by research.
- A performance-based component that addresses any sources of distraction that could impair a driver's proper control of a vehicle and clear view of the road and traffic.

It is expected that this approach will provide the highest road safety-benefits in terms of reducing the number of fatalities, injuries and economic costs from accidents.

In addition, there are non-regulatory initiatives across the Australian transport system that will support achieving the overall policy objective and enhance the effectiveness of the new model driver distraction rules.

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