

AMTA Submission to National Transport Commission
Project:

*Developing technology-neutral road rules for driver
distraction*

14 February 2019



**Australian Mobile
Telecommunications
Association**

Introduction

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing the mobile phone industry in Australia. AMTA welcomes the opportunity to provide feedback to the National Transport Commission regarding the Issues Paper – *Developing technology-neutral road rules for driver distraction* – released in December 2018 (the Issues Paper). We have provided some specific responses to questions 1-4 and 10 from the paper as well as other commentary in relation to mobile technology below.

AMTA supports the Commission’s work in reaching an understanding of driver distraction and the impact it can have on road safety. We believe that a technology-neutral, evidence-based policy approach should result in road rules that are fit-for-purpose and achieve improved safety outcomes in relation to distraction, regardless of the cause of distraction or types of technology involved. AMTA supports road rules that are consistent, easy for drivers to understand and that can be part of a wider approach that incorporates driver education and awareness campaigns to change behaviour and promote safety in line with changes in the on-road and in-car environments

For example, global navigation satellite systems, in-vehicle information systems and mobile phones can all be used as aids to the driver, as well as all having the potential to be distracting, depending on how they are used. Rules need to be targeted at encouraging safe and manageable use of available technology and devices, rather than targeted at particular devices or types of technology, in order to be effective in achieving safer outcomes on our roads. AMTA therefore supports a performance-based approach to managing the risks of driver distraction, rather than prescriptive rules targeted a specific technologies or devices.

To this end AMTA urges priority consideration of driver (and as appropriate passenger) awareness/training initiatives as a central part of any regulatory response. As technology impacts more and more on the driving task through increasingly ‘connected’ vehicles – ultimately offering the opportunity for semi and fully autonomous driving – making drivers aware of any potential in-car distractions and their implications is critical. Attempting to control technology through selective prohibition will not succeed and reflects a flawed policy approach.

Driver Distraction

There is no question that mobile phone use while driving imposes physical, visual, and cognitive demands on the driver and AMTA does not advocate for the existing ban on hand-held use in Australia be changed.

AMTA prefers a technology-neutral, performance-based approach to any revision of the road-rules. Rules to combat the problem of driver distraction should focus on performance rather than any specific type of distraction, technology or device. We also believe that rules around distraction will need to be limited to distractions that are within the driver's control i.e. distractions that are on or inside the vehicle. We note that distractions potentially caused by technology should include use by both driver and passengers as well as by the vehicle itself. Drivers should be responsible for managing the use of technology that could be potentially distracting. Finally, there can be many sources of distraction due to various types of technology (e.g. climate systems, sound systems, navigation aids) used in the vehicle, and mobile technology should not be treated in isolation.

While developments in technology can address physical and visual demands on drivers; education is required to address cognitive factors. Therefore, the most useful action the mobile telecommunications industry and governments can take is to help educate customers about the appropriate, legal and safe use of mobile communications products in vehicles.

AMTA has therefore consistently advised all drivers to make safety their first priority by always using a hands-free kit or option, such as connection to the vehicle's onboard system. Hands-free mobile use can reduce the physical effort to make and receive calls; however, AMTA has always advised that drivers should also avoid making calls in adverse traffic or weather conditions and should not engage in complex or emotional conversations. If a call is unnecessary or you consider it unsafe to answer at the time, don't answer the call.

Further we note that today's smartphones also have voice controls which enables drivers to use phones while not having to take their eyes off the road or their hands off the steering wheel. Some phones and mobile apps also enable the phone to be connected to the car's in-built system so that the phone can be used by voice control or by control of the car's system, often by controls on the steering wheel. Other apps allow for phones to respond to text messages automatically – "Sorry, I'm driving, I'll reply later" - when the car is in motion so that the driver is not distracted. This is an example of technology providing a solution to a common problem, before the laws or rules have been adapted to keep up with either changing technology or human behaviour. This is exactly why the road rules need to be technology-neutral and performance-based rather than focused on types of technology or devices.

We also advise drivers to plan ahead and make calls when stationary or during rest breaks in long trips. Drivers should also take advantage of options that enable voice activated dialling and automatic answering features to reduce the effort to make and receive a call. They should never take notes, look up phone numbers nor read or send text messages.

AMTA has developed safety tips¹ for mobile phones and driving and disseminated these tips via our www.keepyoureyesontheroad website as well as social media channels and via partnerships

¹ See Attachment A.

with road traffic authorities and motoring organisations to discuss the important safety issue of driver distraction. Our tips for drivers have been developed following a careful analysis of the research and a review of other similar safety guidelines around the world, have also been reviewed by road safety authorities in Australia.

Finally, in 2015 AMTA worked closely with the National Road Safety Partnership Program (NRSPP) to develop a mobile phone use policy to assist in identifying the key research results in the area of driver distraction as a basis for proposing key driving behaviours regarding in-vehicle phone use based on safety and the prevailing law. A copy of this policy paper is attached for reference (Attachment B).

Responses to Questions

1. Does the proposed definition include all the key functions required to safely perform the driving task?

AMTA agrees with the proposed definition, however, we note that more explanation around some functions could be helpful, depending on the target audience.

2. Does the proposed definition capture all the behaviours that lead to driver distraction and a reduction in driving performance?

AMTA agrees that the proposed definition should capture all the behaviours that lead to driver distraction and a reduction in driving performance. However, the description of manual distraction is very limited in referring to “*manipulate a device*”. The research clearly shows a diverse range of behaviours that involve taking one or both hands off the steering wheel that do not involve a ‘device’.

3. How could a distinction between manageable and unmanageable levels of driver distraction be used to inform the way distraction is regulated? What evidence-based distinctions could be considered?

Research shows that there can be various causes of driver distraction. Some of these causes fall completely within the control of the driver, while others (such as passenger behaviour) do not. And the types of distraction that have a higher safety risk are clearly those where a driver takes their eyes off the road. For example, texting while driving involves significantly greater risk than answering a voice call using hands-free technology or using a navigation system. The research base should be used to clarify and communicate the range and severity of distractions on the driving task. To this end the opportunity to educate drivers (and passengers) as to the hierarchy of ALL potential distractions based on their relative risk and mitigation measures must be an urgent and ongoing priority. Clearly a focus on regulation and education to mitigate risk associated with so-called ‘manageable’ levels of driver distraction is likely to yield more tangible results.

4. Should conventional and technology-based causes of distraction be treated equally in the Australian Road Rules? Why?

In principle, conventional and technology-based causes of distraction should be treated equally in the road rules.

Driving is a complex visual task that requires focus to minimise potentially dangerous distractions. Drivers face a range of distractions when behind the wheel, such as: interacting

with mobile phones or other devices; navigation devices; looking and reaching for objects; reading maps and newspapers; looking at signs and billboards; adjusting radios and CD players; noisy children; passengers; and eating and drinking.

The evidence clearly shows that distractions that cause a driver to take their eyes off the road ahead are the most dangerous. It therefore makes sense to draft rules based on the underlying principle that drivers should keep their eyes on the road, as much as possible.

10. What evidence is available in support of a performance-based approach or a prescriptive approach for managing the risks of driver distraction?

The [Australian Naturalistic Driving Study](#) currently being conducted by the University of New South Wales and Monash University Accident Research Centre) in association with other partners is expected to provide results that will inform policy around safe driving practices into the future.

The research being conducted builds on naturalistic studies conducted in the USA by Virginia Tech Transportation Institute by Professor Dingus and others that looked at driver distraction and fatigue. The Virginia Tech researchers found that distractions that cause drivers to take their eyes off the road were the most dangerous.

An analysis² of the naturalistic 100-car research by the Virginia Tech Transportation Institute (VTTI) found talking and listening to a mobile phone while driving had a 1.3 times higher chance of a crash or near crash than non-distracted driving and dialling a mobile was 2.8 times riskier.

This compared to a 3.1 times higher risk when some drivers applied makeup or a 2.3 times higher risk when they inserted or retrieved a CD.

Type of Inattention	OR	Confidence Level
Reaching for moving object	8.8	2.5 to 31.2
Reading	3.4	1.7 to 6.5
Dialling Hand-held Device	2.8	1.6 to 4.9
Applying Make-up	3.1	1.3 to 7.9
Handling CD	2.3	0.3 to 17.0
Eating	1.6	0.9 to 2.7
Talk on/Listen to Hand Held	1.3	0.9 to 1.8
Drinking	1.0	0.3 to 3.2
Adjusting Radio	0.6	0.1 to 2.2
Passenger in Adjacent Seat	0.5	0.4 to 0.7

²Klauer, S. G., Dingus, T. A., Neale, V. L., Sudweeks, J.D., and Ramsey, D. J. (2006). 'The Impact on Driver Inattention on Near Crash/Crash Risk: An Analysis Using the 100 Car Naturalistic Driving Study Data' (Report No. DOT HS 810 594). Washington, DC: National Highway Traffic Safety Administration. <http://www.nhtsa.dot.gov/staticfiles/DOT/NHTSA/NRD/Multimedia/PDFs/Crash%20Avoidance/Driver%20Distraction/810594.pdf>

Table 1: Reaching for moving items and dialling are riskier tasks than talking on or listening to a hand-held mobile phone

The VTTI's studies included light vehicle³ and truck drivers⁴ and manual manipulation of phones such as dialling and texting of mobile phones and assessed the increase in risk of being involved in a safety critical event (crash or near crash). The VTTI said "talking or listening increased risk much less for light vehicles and not at all for trucks. Text messaging on a cell phone was associated with the highest risk of all cell phone-related tasks".

<i>CELL PHONE TASK</i>	<i>Risk of Crash or Near Crash event</i>
Light Vehicle/Cars	
Dialling Cell Phone	2.8 times as high as non-distracted driving
Talking/Listening to Cell Phone	1.3 times as high as non-distracted driving
Reaching for object (i.e. electronic device and other)	1.4 times as high as non-distracted driving
Heavy Vehicles/Trucks	
Dialling Cell phone	5.9 times as high as non-distracted driving
Talking/Listening to Cell Phone	1.0 times as high as non-distracted driving
Use/Reach for electronic device	6.7 times as high as non-distracted driving
Text messaging	23.2 times as high as non-distracted driving

Table 2: Naturalistic research has been able to tease out the riskier sub-tasks involved in distracted driving

This study clearly identifies driving and texting as a very dangerous practice and it should be tackled as a priority by governments and road traffic authorities.

NRMA Insurance showed⁵ that people who text while driving spend almost 70 per cent of the trip glancing at their phone. They found that drivers were glancing at their phones while texting for 1.4 seconds on average, which means that when travelling at 60km per hour drivers were taking their eyes off the road for 22 metres at a time – or almost five car lengths.

Monash University's Accident Research Centre (MUARC) found in 2006⁶ that drivers engaged in texting had their eyes off the road for up to 400 per cent more than when not texting and concluded that "retrieving and, in particular, sending text messages has a detrimental effect on a number of

³Klauer, S. G., Dingus, T. A., Neale, V. L., Sudweeks, J.D., and Ramsey, D. J. (2006). 'The Impact on Driver Inattention on Near Crash/Crash Risk: An Analysis Using the 100 Car Naturalistic Driving Study Data' (Report No. DOT HS 810 594). Washington, DC: National Highway Traffic Safety Administration

⁴Olson, R.L., Hanowski, R.J., Hickman, J.S., Bocanegra, J. 2009. 'Driver distraction in commercial vehicle operations' (Report FMCSA-RRR-09-042) Washington, DC: US Department of Transportation

⁵NRMA Media Release, 19 February 2010, 'Drivers - don't send that message'

⁶The effects of text messaging on young novice driver performance Monash University Accident Research Centre - Report #246 [2006] Hosking, S.G., Young, K.L., & Regan, M.A

safety critical driving measures, such as the ability to maintain lateral position, detect hazards, and to detect and respond appropriately to traffic signs”.

Importantly the recent VTTI naturalistic studies have allowed researchers to segment mobile phone tasks into sub-tasks and better understand each sub-task’s relative risk. The research clarifies that reaching and dialling sub-tasks have a high degree of risk, whereas talking and listening did not.

“In other words, although talking on the cell phone did not show an increased risk, a driver must take several risk-increasing steps in order to use the electronic device for conversation. This is an important finding suggesting that much of this risk may be addressed through improved interface design,” says the VTTI.⁷

The Director of the VTTI, Dr Tom Dingus, said several large-scale, naturalistic driving studies using sophisticated cameras and instrumentation in participants’ personal vehicles conducted by the VTTI provided a clear picture of driver distraction and mobile phone use under “real-world driving conditions”.

The study said the key difference between high risk and low-risk non-driving tasks involves the amount of visual distraction. Non-driving tasks associated with high visual attention have the highest odds of involvement in a safety-critical event.

The VTTI’s research papers show that text messaging “also had the longest duration of eyes off the road time (4.6 seconds over a 6-second interval). Talking/listening to a cell phone allowed drivers to maintain eyes on the road and were not associated with an increased safety risk to nearly the same degree”.

The VTTI explained the importance of drivers keeping their eyes on the road in their recent media release⁸:

Eye glance analyses were conducted to assess where drivers were looking while involved in a safety-critical event and performing cell phone tasks. The tasks that draw the driver’s eyes away from the forward roadway were those with the highest risk...

These results show conclusively that a real key to significantly improving safety is keeping your eyes on the road. In contrast, “cognitively intense” tasks (e.g., emotional conversations, “books-on-tape”, etc.) can have a measurable effect in the laboratory, but the actual driving risks are much lower in comparison.

⁷Virginia Tech Transportation Institute (VTTI) Media Release, 28 October 2010 ‘VTTI releases new study on results on distraction in commercial trucks and buses.’

⁸Virginia Tech Transportation Institute (VTTI) Media Release July 27, 2009 ‘New Data from VTTI Provides Insight into Cell Phone Use and Driving Distraction’

Conclusion

The in-car and on-road environment is experiencing disruption and rapid change due to the impact of technology, including the development of semi-autonomous and autonomous vehicles as well as integration of vehicle systems with other technology such as mobile communications and safety controls. Driver distraction needs to be understood in this context and naturalistic research has the potential to provide evidence as to how distraction impacts on driving under real life conditions. So far, the evidence has shown that non-driving tasks that involve visual distractions have a higher safety risk.

AMTA believes, therefore, that a performance-based approach that focusses on the need for drivers to keep their eyes on the road would be more effective than an overly prescriptive approach that targets particular types of technology, devices, activities or other factors that can result in distraction.

We suggest that there will never be a regulatory 'silver bullet' to solve the challenge posed by distracted driving. Distraction happens from too many sources to adequately regulate a solution. Distraction will exist and continue regardless of how much regulation is imposed. The key policy focus must be on changing driver and passenger behavior through awareness and education initiatives – coupled with supporting technology- neutral regulation.

Finally, there also will need to be a clear analysis of the compliance and enforcement implications and realities of any regulatory settings.

Contact

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