

# Policy Brief

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## Think talking on your hands-free while driving is safe? Think again

### BACKGROUND

The RAC's Be Phone Smart campaign reported that drivers using phones caused 2263 crashes between 2013 and 2017. It also reported that 25% of respondents admitted using a hand-held phone while driving, and 40% admitted to checking texts or social media. However, most such campaigns focus on hand-held mobile phone use rather than hands-free.

Research carried out by Dr Graham J. Hole (University of Sussex) with Dr Gemma F. Briggs and Dr Jim A. J. Turner (Open University) reveals overwhelming evidence that – contrary to popular assumption – **driving while having a phone conversation using hands-free technology is no safer than using a hand-held phone.** Over 80% of studies into phone use have now shown significant performance degradation, with hands-free phone use causing the same dangerously high levels of distraction as hand-held phone use (Atchley et al, 2017).

Drawing from their own research, as well as numerous studies by other academics and public bodies, this policy brief debunks some common misconceptions around the safety of hands-free phone use, and examines some potential solutions for tackling the problem.

### KEY FINDINGS

- Modern cars now feature integrated “infotainment” that includes hands-free mobile integration, which is often advertised as ‘safe’ and desirable.
- However, the risk of crashing is increased four-fold when drivers engage in a hands-free phone conversation – as high as when using a hand-held phone.
- Although hands-free phones reduce visual (eyes off the road) and mechanical (hands off the wheel) distraction, drivers remain at risk of cognitive distraction.
- Conversations cause the driver to visually imagine what they’re talking about. This visual imagery can interfere with driving performance, as the two tasks compete for similar processing resources.
- Distracted drivers detect fewer hazards and take longer to react to unexpected events; they can even be looking directly at a hazard and yet fail to see and react to it, as their attention is diverted to their phone conversation.
- Driving behaviour is impaired more during a phone conversation than by having a blood alcohol level at the UK legal limit; at 70mph, the phone users were found to take – on average – an additional 4 metres to react.
- Although penalties are becoming more severe for hand-held phone use, the use of hands-free mobiles remains largely undetected and unpunished, as laws banning hands-free use have thus far been considered unenforceable.
- But new technologies have the potential to be able to detect hands-free phone use, as well as differentiate between driver and passenger use.

## WHY IS PHONE USE WHILE DRIVING SO DANGEROUS? 5 COMMON MISCONCEPTIONS

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1. *Talking on a hands-free mobile phone is no different from talking to a passenger.*

Talking to a passenger is safer than chatting on a phone, even if it is hands-free. Passengers are in the same driving environment, so they tend to stop talking or point out hazards when driving is difficult. It is also more mentally demanding to hold a conversation on the phone than with a passenger.

2. *Talking on a hands-free mobile is a safe alternative to talking on a hand-held device, as your hands are on the steering wheel.*

This is not the case. While having both hands on the steering wheel is, of course, important for safe driving, this doesn't remove the dangers associated with talking on the phone, as it is the act of *conversing on the phone* that is dangerous. The risk of crashing is as high when using a hands-free mobile as when using a hand-held one, and merely talking on a mobile phone can slow the reaction time of a twenty year old to that of a seventy year old.

3. *Talking on a hands-free device is acceptable, but drink-driving or drug-driving is not.*

Talking on a hands-free device should not be more acceptable than drink or drug-driving, as speaking on a mobile can slow reaction times even more than being at the legal blood alcohol limit.

4. *Using hands-free mobiles while driving is not illegal, so it must be safe.*

While it is not illegal to use hands-free mobiles while driving, it is illegal to drive dangerously, carelessly, or when failing to exercise proper control of a vehicle. So, people can be prosecuted for using a hands-free mobile. The main reason that it is not currently a specific offence is that it is difficult to enforce.

5. *My car has an integrated digital system, so it must be safe.*

These integrated systems create the illusion of safety, but this is not the case. They should only be used when the car is stationary.

## WHAT'S WRONG WITH THE CURRENT LAWS?

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In the 1990s, the use of car phones while driving was covered by the offences of dangerous driving, careless driving, or failing to exercise proper control of a vehicle. It was therefore not possible to identify how many prosecutions were specifically for using a mobile phone. In 2002, the Government evaluated the need to make it a separate offence and, the following year, a law was introduced to ban the use of hand-held mobile phones whilst driving. However, this was not extended to hands-free devices, as it was thought to be unenforceable.

While the penalties (fines and points) for hand-held mobile use continue to increase in severity, they fail to address the issue of hands-free devices, which are now commonly integrated into modern cars, and advertised as safe alternatives to hand-held phones. But studies are now revealing the extent of this problem; for example, a recent campaign by TRL found that 55% of respondents used hands-free mobiles whilst driving.

## NEW TECHNOLOGIES COULD OFFER A SOLUTION...

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A number of new technologies for detecting mobile phone use are now being developed and trialled (e.g. Westcotec), including road signs – introduced in Norwich, UK – that identify radio signals being transmitted from inside cars and flash a warning symbol. However, their powers of detection are limited to radio signals (used by hand-held devices); those using Bluetooth (for hands-free connections) will not be detected nor warned by the sign, nor those using a data connection (for internet services). Currently being used as a deterrent, the signs cannot (yet) record cars' registrations or issue fines.

Growing demand for signal detection in cars to monitor traffic updates has resulted in several systems (e.g. Orange Traffic, Libelium, Bluetoad) that can monitor mobile device statuses in real time and differentiate between mobiles in dense traffic areas. These have the potential to be able to differentiate between radio and Bluetooth signals, as well as between passenger and driver mobile phone use. Indeed, such a product already exists (e.g. WallHound), for detecting and deterring

## THINK TALKING ON YOUR HANDS-FREE WHILE DRIVING IS SAFE? THINK AGAIN

unauthorised mobile phone use, including voice, data and text activity.

While these systems have not been optimised for mobile phone detection while driving, there is scope to use similar technology to do so. Indeed, in the US, police have been working on research that uses location technology with potential for differentiating between passenger and driver mobile phone use – something that has already been achieved with about 90% accuracy in other research.

The argument that there is no way to enforce a ban on the use of hands-free devices is thus being revealed as increasingly out of date; indeed, the House of Commons Transport Select Committee recognises the need for such solutions, stating in a recent report:

*“the use of hands-free mobile phones presents a problem of distracted drivers, which should be addressed. We recommend that the Department fund research into the development and effective deployment of technology to detect illegal mobile phone use while driving.”*

### ... AS COULD EDUCATIONAL CAMPAIGNS AND COURSES

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There have been several campaigns designed to tackle the issues of using digital devices while driving, including Don't Stream and Drive, THINK!, Operation Top Deck, Operation Crackdown, and Be Phone Smart. But most of these focus on hand-held mobile phone use. One of the main issues with hands-free mobile technology is that it is sold as a “safe” alternative to hand-held devices, so many people remain unaware of the risks they pose.

In 2017, despite earlier suggestions for the provision of an education course aimed specifically at mobile phone offences, the Government removed the option for first time offenders to attend an educational course. The RAC disagreed with this decision:

*“Better enforcement needs to be backed up by more driver education about the true dangers of handheld mobile phone use, and a heavyweight road safety campaign akin to that which has been successful in making drink-driving socially unacceptable.”*

A number of studies have shown that educational courses are more effective than other penalties at changing behaviour and lowering re-offence rates; one such study found that 99% of course attendees reported that they had changed their driving style.

To date, little research has been done into what education is available to drivers, whether it is effective, and whether it can be improved. But a team of researchers at the University of Sussex (Hole) and the Open University (Briggs; Pike) – in collaboration with the Centre for Policing Research and Learning – are now investigating the effectiveness of potential behaviour-changing approaches. These could include providing freely-available, evidence-based resources for drivers, and developing targeted interventions for specific groups such as learner drivers.

## POLICY RECOMMENDATIONS

- The public is clearly confused about the risks of using hands-free technology while driving, probably because of conflicting information. Campaigns such as those around drink-driving, or indeed on using hand-held devices, could be an effective way of warning drivers about the dangers of using all communication devices (and debunking the myth that hands-free is a safe option).
- Misleading advertising for infotainment systems should be addressed by advertising regulators. In particular, marketing integrated hands-free mobile systems as “safe” should be banned, and manufacturers that include safety research and tips should include statistics on the dangers of driving while talking on a phone.
- Greater policymaker awareness is also crucial. The Government’s decision not to ban hands-free phone use whilst driving suggests that they are either unaware that it is as dangerous as hand-held phone use, or are unaware of technologies that could detect and deter these practices.
- Even if effective and widespread enforcement is difficult, a legal ban on hands-free phone use while driving would at least send out a clear and correct message to the public that using any type of communication device is both risky and unacceptable.
- There needs to be further research and investment into developing technologies to detect hands-free use, to support the updating of laws and their enforcement.
- The power of driver awareness courses to change behaviour should not be underestimated; studies have continuously shown that offenders are more likely to make changes to their driving and are less likely to reoffend, than if they’d been issued penalty points or fines.
- Further research is also needed into how existing courses are structured, how effective they are, how to improve them, and how to make them accessible to all drivers, rather than just those caught offending.

## REFERENCES

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This policy brief draws on the following papers, as well as research by other academics and public bodies. Full details of all references and sources can be found in this expanded research digest document:

<http://blogs.sussex.ac.uk/policy-engagement/files/2019/01/Talking-on-the-phone-while-driving-supplementary-doc.pdf>

Briggs, G. F., Hole, G. J., & Land, M. F. (2016). [Imagery-inducing distraction leads to cognitive tunnelling and deteriorated driving performance](#). *Transportation Research Part F: Traffic Psychology and Behaviour*, 38, 106–117.

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Hole, G. J. (2018). [The Psychology of Driving](#). 1<sup>st</sup> ed. Milton: Routledge

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