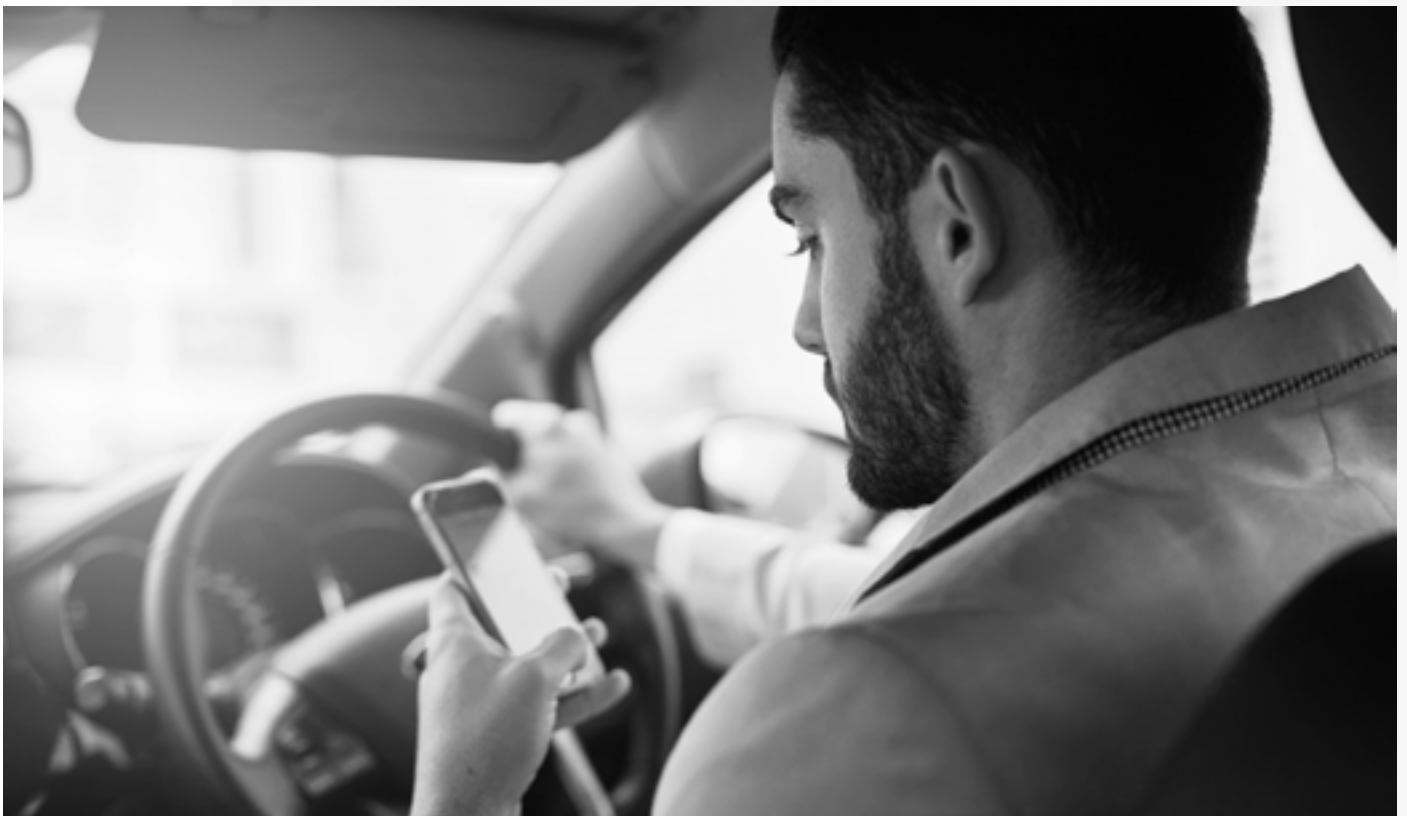


WHITEPAPER

DRIVING WHILE DISTRACTED: CHALLENGES AND SOLUTIONS



iam
RoadSmart

Driving while distracted, whether by mobile phones, sat-nav systems, radios, children, smoking, eating or perhaps just daydreaming, is ubiquitous. The evidence is there each time we take to the roads, involving private, business and even 'professional' drivers.

Anecdotally, it's on the increase – with fleets, in particular, facing higher costs for damage, fines and charges – despite legislative moves to clamp down on mobile phone mis-use while driving. With the steady rise of new, potentially-distracting in-car technology being added to vehicles on an almost daily basis by manufacturers – and with fleets leading on this front – it seems intuitive that the situation is indeed worsening.

In fact, examination of the evidence shows that the total number of reported driving collisions caused by distraction in 2017, has barely changed since 2007. Cars are becoming ever safer, especially with the march of sophisticated Advanced Driver Assistance (ADAS) technology. Surely, therefore, collisions caused by distractions should have seen a significant decrease in numbers?

Government figures show that an estimated one third of road deaths in Britain involve someone on a journey for work purposes. Each day, more than 150 vehicles driven on business are involved in a collision resulting in injury. Are at-work drivers at particular risk from distractions? What do the experts, including those in the fleet sector, believe can be done about it? And what can vehicle manufacturers, employers, fleet managers and the latest technology do to help solve the problem?

Distracted drivers cause death

Department for Transport (DfT) figures show that in 2017 there were 4,639 casualties caused by in-vehicle distractions. Included in this figure were 88 fatalities and 614 serious injuries.

Ten years earlier in 2007, the figures were similar, although fatalities were lower: there were 5,173 casualties including 79 fatalities and 553 serious injuries.

A disturbing feature of these collisions is the number where 'driver using a mobile phone' was a factor. Over the ten-year period from 2007 to 2017 this rose by 37%, from 565 to 773.

	Distraction in vehicle				Driver using mobile phone			
	Killed	Serious	Slight	Total	Killed	Serious	Slight	Total
2007	79	553	4,541	5,173	27	97	441	565
2008	84	430	4,256	4,770	19	71	399	489
2009	69	518	4,519	5,106	15	68	426	509
2010	69	484	4,465	5,018	28	74	449	551
2011	82	559	4,787	5,428	23	74	474	571
2012	71	497	4,396	4,964	17	79	452	548
2013	92	566	4,314	4,972	26	95	539	660
2014	79	589	4,712	5,380	24	111	634	769
2015	66	504	4,370	4,940	22	99	585	706
2016	91	575	4,106	4,772	35	137	608	780
2017	88	614	3,937	4,639	43	135	595	773
	11%	11%	-13%	-10%	59%	39%	35%	37%

(%) Percentage increase over the ten-year period from 2007-2017

Casualties in reported road accidents (includes only casualties in accidents where a police officer attended the scene and in which a contributory factor was reported). Source: DfT STATS19

The issue was highlighted in 2017 by the IAM RoadSmart study, *The Battle for Attention*, a study of DfT data. “Being distracted can make drivers less aware of other road users [...] and less observant of road rules such as speed limits and junction controls,” the study said. “The emergence of mobile and in-vehicle technology in particular has prompted much recent concern about driver distraction.”

A study by insurer Direct Line and road safety charity Brake underlined this trend in 2016,⁰² reporting that, of 11,000 drivers observed in St Albans, one in six were engaged in a distracting activity such as talking on a phone or to a passenger, or smoking. It also found that younger drivers were more likely to be engaged in distracting activities.

Can this be any surprise in an age when the smartphone creates a direct expectation that people – especially those driving for work – should be available, and answerable, almost around the clock?

A worldwide problem

There is plenty of evidence to suggest that driving while distracted – whether for private or business motorists – has become a phenomenon worldwide, just as it is in the UK.

- In 2010, a study by the US Nationwide Mutual Assurance Company⁰³ reported that four in ten respondents (38%) claimed to have been hit or nearly hit as a result of other drivers including those driving for work, being distracted by mobile phones or other technology
- US Department of Transportation statistics for 2015⁰⁴ show that 3,477 people died and another 391,000 were injured in crashes caused by drivers who were distracted because they were texting or using mobile phones
- A World Health Organization (WHO) report⁰⁵ in 2011 showed that the proportion of drivers using mobile phones while driving had increased over the past 10 years, from 1% to up to 11%
- The US Department of Transportation⁰⁶ reported that distracted drivers were about four times as likely to be involved in crashes as those focused on driving, while drivers who are texting could be more than 20 times more likely to crash
- Estimates by the European Commission⁰⁷ suggest that between 10 and 30% of collisions in Europe are caused by road user distraction

Some experts fear, however, that those driving for work are particularly vulnerable, as they are under increasing time pressure, not least due to the constant presence of the mobile phone.

What is distracting us?

Driver distraction occurs when a driver diverts their attention away from the activities needed for safe driving. Distracted driving is the state that occurs when attention is given to a non-driving related activity, typically to the detriment of driving performance.

Why do so many of us do this? There are so many causes that it's hard to list them all. In 2014, IAM RoadSmart research⁰⁸ asked motorists what they felt the most common distractions were. The responses were:

- Children in the car: 29%
- Changing the radio channel: 27%
- 'Backseat drivers': 26%
- Mobile phone calls: 24%
- Sat-nav: 15%

In contrast with the apparent public perception in 2014, a separate investigation by Auto Express magazine, carried out in conjunction with IAM RoadSmart in April 2017⁰⁹ found that programming a sat-nav was the 'worst distraction' for drivers. The investigation, conducted in a laboratory, found that asking volunteers to operate a sat-nav while at the wheel of a driving simulator, raised the volunteers' heartbeats and breathing rate as they struggled to concentrate on programming the device at the same time as attempting to focus on the road ahead.



Tim Shallcross, IAM RoadSmart head of technical policy, says: “Those warning screens about not entering details on the move are there for a reason. Don’t ignore them.”

It’s not just “voluntary” distractions such as programming the sat-nav that can cause problems. The European Commission paper Study on good practices for reducing road safety risks caused by road user distractions¹⁰ points out that “If poorly implemented, most technologies (even those which are intended to benefit road safety) have the potential to do harm, by increasing road user distraction.”

Types of distraction

Distraction comes in many guises including:

- Mental distraction, when the driver’s mind is engaged with tasks – for example, those related to work – not needed for safe driving
- Visual distraction, when a driver takes their eyes off the road to look at things inside or outside the vehicle. This can include work-related material such as touch-screens.
- Auditory distraction, when a driver is subjected to noise that diverts attention from activities necessary for safe driving – such as a phone call
- Manual distraction, when the driver takes their hands – either one or both – off the vehicle controls to attend to an activity that is not required for safe driving – such as texting a friend or a work colleague

Sometimes these types of distraction can combine, for example when a driver hears a mobile phone ringing (auditory distraction), looks around for the phone (visual distraction) and fumbles to pick it up (manual distraction). It’s a problem faced on a daily basis by many of those who drive for work.

	Cognitive	Visual	Audible	Manual	Distraction time
Phone: texting	High	High	Low	High	Medium
Phone: dialling	Medium	High	Low	High	Short
Phone: talking	High	Low	High	Low	Long
Sat-nav: following route	Medium	Medium	Low	Low	Medium
Eating or smoking	Low	Medium	Low	High	Medium
External signs	Medium	High	Low	Low	Short
Voice control	High	Medium	Medium	Low	Short

Example of how different types of distraction affect drivers. Source: IAM RoadSmart, *The Battle for Attention* (H=High level of distraction; M = Medium level of distraction; L = Low level of distraction)

In some circumstances, drivers can be particularly susceptible to distraction. What made drivers, including those driving for work, more likely to be distracted? According to The Battle for Attention:

- Stress, for example a bad day at work: 22%
- Thinking about what they would do when they arrived: 21%
- Thinking about family, friends and relationships: 21%

And this distraction has real consequences, with 9% of drivers claiming to have crashed because they were distracted. For almost half of these drivers, the crash involved an injury.

Mobile phone abuse

One factor consistently emerges as the prime in-vehicle distraction: the mobile phone. This is heightened by so-called “nomophobia”, the fear of being out of mobile phone contact. This can be particularly onerous for drivers in a working environment.

No wonder the 2015 European Commission paper Study on Good Practices stated: “A frequently-cited odds ratio suggests that phone use while driving is associated with a fourfold increase in crash risk.”



IN 2011, POLICE IN DUBAI REPORTED A SUDDEN DROP IN ACCIDENT RATES¹¹ AFTER A THREE-DAY DISRUPTION IN BLACKBERRY SERVICES (HIGHLY POPULAR IN THE REGION). THE DIRECTOR OF ABU DHABI POLICE TRAFFIC DEPARTMENT EXPLAINED: “ACCIDENTS WERE REDUCED BY 40 % AND THE FACT THAT BLACKBERRY SERVICES WERE DOWN DEFINITELY CONTRIBUTED.”

In 2018, research from RAC Business showed that one in five employers say their drivers have been involved in a crash after using a hand-held phone at the wheel.


The research showed that 15% of businesses admit their drivers are ‘often involved’ in collisions while using a hand-held phone, with 5% reporting it happened ‘on a regular basis’.

RAC Business said one of the contributing factors could be that nearly four in every 10 (38%) businesses said they expect commercial drivers to answer calls while on the road. For larger businesses (500 to 1,000 employees) that figure rises to 49%.

In 2018, the WHO¹² reported on the many types of distractions that can lead to impaired driving and said that the distraction caused by mobile phones is a growing concern for road safety:

- Worldwide, drivers using mobile phones are approximately four times more likely to be involved in a crash. Using a phone while driving slows reaction times, makes it difficult to keep in the correct lane, and makes it hard to keep the correct following distances
- Hands-free phones are ‘not much safer’ than hand-held phones, and texting considerably increases the risk of a crash

Dr Graham Hole, senior lecturer in psychology at the University of Sussex, agrees: “The problem with any mobile phone conversation is that it takes the driver out of the loop. It puts them into a different world, whether they are talking on a hands-free system or not. Many phone conversations involve mental imagery [...] which competes with the same brain resources as here-and-now real-world vision, needed for driving.”



Hole says, “Drivers don’t realise how many mistakes they are making, and how many compensations other drivers are making for their poor driving when they are distracted. They are simply not aware of it because of their phone conversation. Most drivers say they can see that other drivers are impaired by using a mobile phone, but most drivers think that they can drive themselves and use a mobile phone.”

Backing up the WHO’s statement is a section of Dr Hole’s *The Psychology of Everything: Driving*. It states: “Atchley, Tran and Salehinejad (2016) aggregated the data from 342 studies on driver distraction. With respect to the effects of mobile phone-use, the picture that emerged was very clear: of 147 performance measurements that were made, 82% showed evidence of impairment when a hand-held phone was being used. This was strikingly similar to the effects of hands-free phones, where 81% of 270 measurements showed impairment”.

Adds Dr Hole: “There are now hundreds of studies showing that drivers are impaired when they use a mobile phone: most researchers now don’t bother using hand-held phones in their studies, partly because they are illegal anyway but mainly because in the academic community it is widely accepted that hands-free phones are no safer than hand-held phones because the primary impairment is in terms of distraction, not so much the physical impediment produced by holding a phone in your hand.”

“I WOULD BAN THE USE OF MOBILE PHONES BY DRIVERS ALTOGETHER. THEIR USE IS NOT COMPATIBLE WITH DRIVING.”

DR GRAHAM HOLE,
UNIVERSITY OF SUSSEX



But as reported in the Daily Telegraph in December 2016¹³, car makers don’t necessarily see it that way. When asked by researchers from the Transport Research Laboratory (TRL) consultancy about enforcing “drive safe” modes for phones (similar to existing flight-safe modes), one car company employee said: “You risk losing sales if you disable and another manufacturer does not.”

Nevertheless, IAM RoadSmart’s third annual Driving Safety Culture Survey¹⁴, which questioned more than 2,000 motorists in December 2017, including some who drive for work, found that the biggest single perceived threat that road users feel is from drivers checking their social media accounts. This is slightly higher than texting and emailing, and closely followed by drivers who have been drinking or taking drugs.

This survey found that more than 90% of those surveyed thought that the dangers caused by people accessing social media or email messages while driving was a significant threat to their personal safety. It also found that the problem is increasing, with 80% believing the problem to be more significant than it was three years ago.

According to Dr Neale Kinnear, Head of Behavioural Science at TRL, “Recent technology has put a new perspective on driver distraction because it can be so demanding of our attention. We are now conditioned to go to our phone and see who it is; what the message is. Even when we are driving.

“There was an opportunity at the advent of mobile technology to take a legislative approach to ban its use while driving but that did not happen, so hands-free calls became possible. It gave manufacturers the opportunity to develop systems that integrated with phones. So it would be very difficult, now, to fully legislate backwards.”



“RECENT TECHNOLOGY HAS PUT A NEW PERSPECTIVE ON DRIVER DISTRACTION BECAUSE IT CAN BE SO DEMANDING OF OUR ATTENTION. WE ARE NOW CONDITIONED TO GO TO OUR PHONE AND SEE WHO IT IS; WHAT THE MESSAGE IS. EVEN WHEN WE ARE DRIVING.”

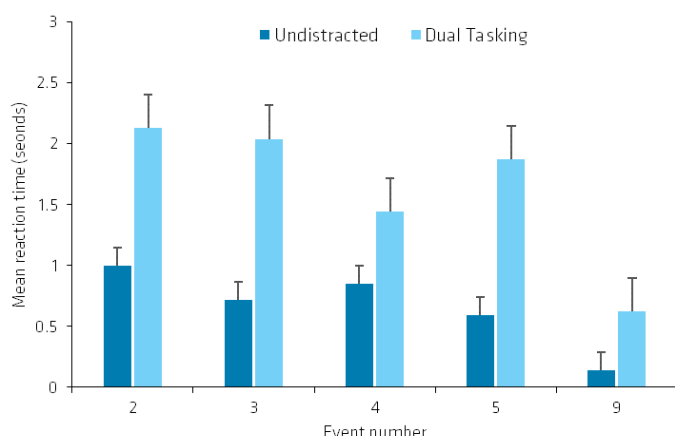
DR NEALE KINNEAR, TRL

But I can multi-task!

Can we multi-task? Apparently not. Tasks almost always interfere with other tasks carried out at the same time. The brain never actually focuses on two tasks at the same time; it switches back and forth.

In fact a paper co-authored by Dr Graham Hole, entitled ‘Transportation Research Part F’, includes a graph showing participants’ reaction times to five different unexpected events in a video taken from a driver’s perspective, amply demonstrating the risk of multi-tasking.

Drivers were asked to respond to any hazards in the video by pressing a button as quickly as possible. They were either undistracted or distracted by a simulated mobile phone conversation about anti-social behaviour. All but one of these hazards occurred directly ahead of the driver in the video.

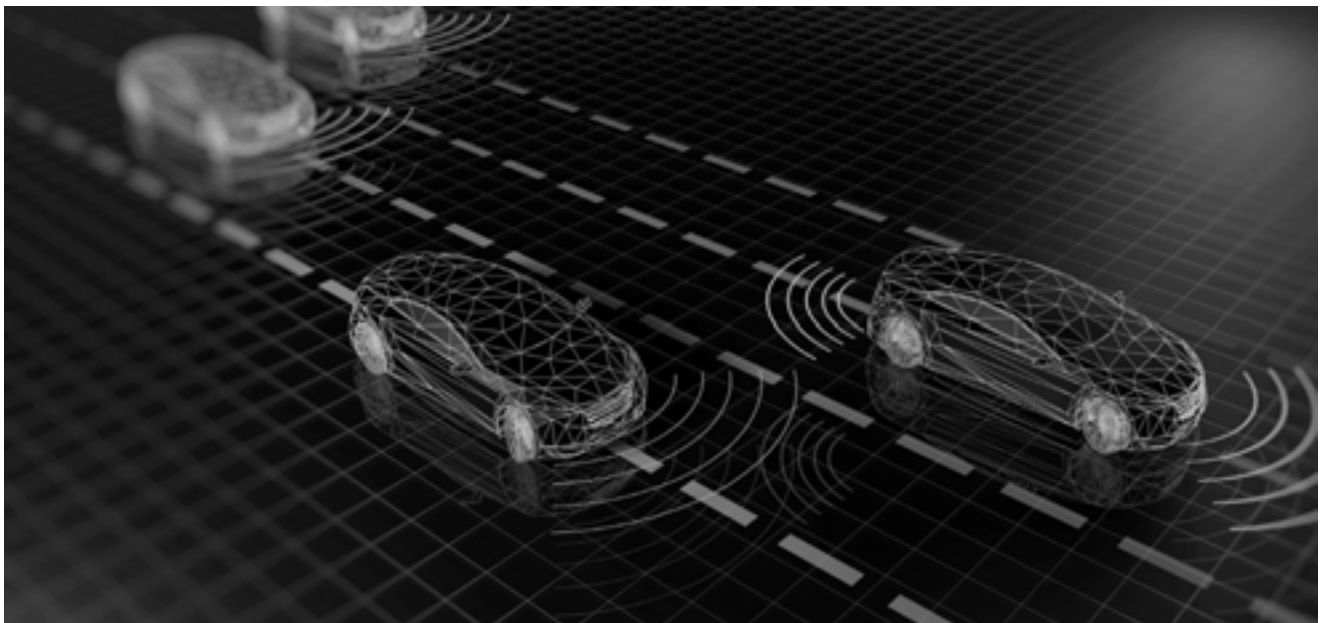


Dr Hole says that the graph demonstrates that mobile phone use both lengthens response times to unexpected hazards and results in a narrowing of the driver’s field of view, to the area directly ahead of the vehicles, so that they fail to notice hazards emerging to the sides of the vehicle, i.e. in their peripheral vision. Furthermore, the longer drivers get away without crashing, the more faith they have in their ability to remain safe while being distracted – “until something goes wrong”. Dr Hole concludes “I would ban the use of mobile phones by drivers altogether. Their use is not compatible with driving”.

Is technology helping or hindering?

Many experts agree that we are entering a potentially hazardous period. The gradual introduction of Advanced Driver Assistance Systems (ADAS) such as adaptive cruise control means that drivers are relegated to the role of passenger one moment then catapulted back to the status of driver, possibly in an emergency, the next.

The European Commission Study on Good Practices says that even technologies designed to reduce distraction (for example, partial automation systems which take driving tasks away from the driver) may be problematic. Drivers may feel able to use the “spare” mental capacity this provides on non-driving related tasks. This can result in reduced situational awareness.



Dr Hole puts it like this: “The most important thing in driving is situational awareness: being aware of what is going on around you. If you talk to young drivers there’s this misconception that their fast reactions are going to get them out of trouble, and of course they don’t. Safe driving is not about having fast reactions. It’s about anticipating situations and responding to hazards before they become emergencies.

“One of the most striking things about advanced drivers is how smooth they are because they are reading the road ahead and are aware of what’s around them. A lot of driver aids cut into the driver’s situation awareness and remove the driver’s perception that they need to be aware of what’s going on around them.”

Dr Hole believes that the worst of all worlds is semi-autonomous driving: “Human beings are rubbish at being vigilant – vigilance declines after about 20 minutes. With semi-autonomous you are reducing the driver to monitoring the system on the off-chance something goes wrong. Most of the time nothing goes wrong, leading the driver to have massive faith in the system in all conditions, which of course isn’t always the case.”

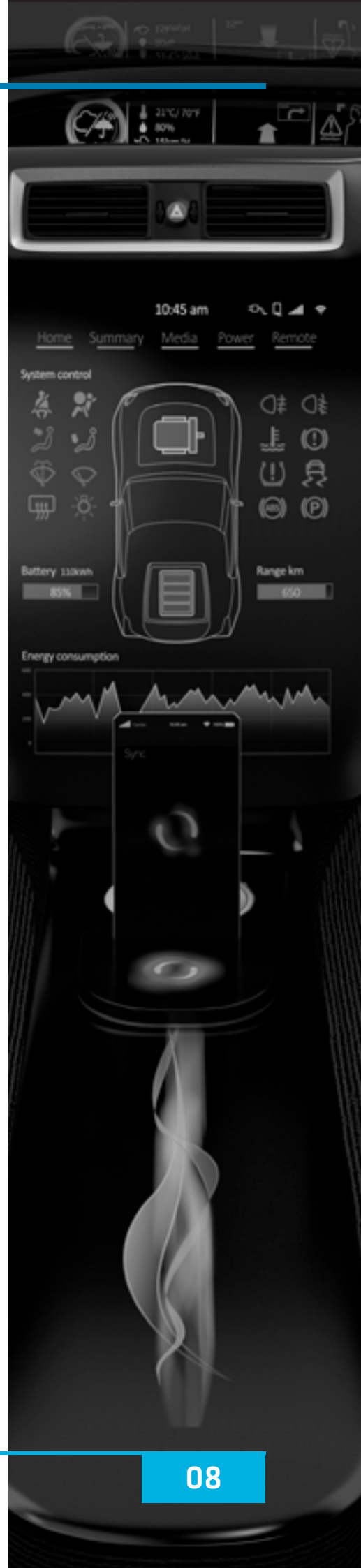
Similarly, Dr Lisa Dorn, Head of the Driving Research Group at Cranfield University, fears that the introduction of ADAS technology could cause more collisions than it saves, in the short term.

Instead, says Dr Dorn, who is also Research Director for behavioural driver safety programme, DriverMetrics, new in-car technology should be moving ahead of motorists' ability to adapt to it.

In their present, relatively unrefined, state some ADAS systems may be lulling drivers, including those who drive for work, into a false sense of security. This is compounded by manufacturers, dealerships and fleet managers who should do more to educate drivers on how to use systems safely.

She says: "I would like all cars to go straight to Level 4 (fully autonomous) at the same time, so that we don't have this mix of vehicles being driven manually some of the time and semi-autonomously the rest of the time. At Levels 2 and 3 (when drivers are fully in control some of the time but at other times rely heavily on self-drive functions) motorists become intermittent operators, which is the dangerous area.

"With Adaptive Cruise Control (ACC) for instance, it takes twice the amount of time to respond to a sudden braking event than it does when you are manually driving. Drivers may believe that ACC is safer but actually taking your foot off the accelerator pedal and letting the car make the decisions leads to lower workload and can mean drivers are unprepared for an unexpected event. It takes about one second for a manual driver to respond to a sudden and unexpected braking event. It takes twice that time for a driver using ACC."



“I WOULD LIKE ALL CARS TO GO STRAIGHT TO LEVEL 4 (FULLY AUTONOMOUS) AT THE SAME TIME, SO THAT WE DON'T HAVE THIS MIX OF VEHICLES BEING DRIVEN MANUALLY SOME OF THE TIME AND SEMI-AUTONOMOUSLY THE REST OF THE TIME.”

DR LISA DORN,
CRANFIELD UNIVERSITY





In contrast however, Colin Grover, Principal Engineer, Automated Driving, at Thatcham Research, says that it is important to avoid demonising ADAS. “Many ADAS systems operate in the background, like Autonomous Emergency Braking (AEB), [which is] almost invisible until you need it,” he points out. “So not all ADAS adds distraction. Not all of it is in your face. It is there to help when needed.”



“NOT ALL ADAS ADDS DISTRACTION.
IT IS THERE TO HELP WHEN NEEDED.”

COLIN GROVER,
THATCHAM RESEARCH

Solving the problem of inattention

Experts tend to agree that the “best” solution, the fully autonomous car, is still some years off. In the meantime different countries have tried various approaches:

- More than 320 countries worldwide have made it illegal to use hand-held devices while driving¹⁵
- Sweden, which has fewer motor vehicle crash deaths than other high-income countries, does not ban the use of mobile phones while driving. Instead, it puts its energy behind efforts to raise awareness of the risks of distracted driving
- Other countries, such as Portugal, have extended bans on the use of mobile phones while driving to include hands-free devices
- In the US¹⁶, 43 states have passed laws to prohibit drivers from texting while driving
- In the UK¹⁷ it is illegal to hold a phone or sat-nav while driving. Penalties include six penalty points and a £200 fine or loss of licence if the driver passed their test within the past two years. Drivers can be taken to court where they can be banned from driving or riding and/or get a maximum fine of £1,000 (£2,500 if driving a lorry or bus)

Keeping drivers engaged

Increasingly, experts are seeking technical solutions, especially within the field of autonomous driving, in order to ensure drivers remain attentive. This could prove particularly relevant for those driving on business, as they frequently cover high mileages, in the latest cars which have a high presence of driver aids. This, in turn, could result in workplace drivers becoming increasingly tempted to rely on driver aids. Dr Hole says that cars should not be designed to do everything until there is an emergency. “We need systems that keep the driver in the loop.”

Neville Stanton, Professor of Human Factors in Transport, Southampton University¹⁸, agrees. He advocates the “chatty co-driver” approach, in which the car maintains a dialogue with the driver, especially in the crucial moments leading up to a car handing control back to the driver after a fully autonomous phase.

In aviation, pilot and co-pilot constantly keep each other informed. Professor Stanton advocates a similar relationship between semi-autonomous cars and drivers.



“WHEN THE CAR TAKES OVER, PEOPLE QUICKLY GET BORED. THEY START PICKING UP THEIR PHONE. AUTOMATED DRIVING IS INHERENTLY BORING; YOU HAVE NOTHING TO DO.”

NEVILLE STANTON, SOUTHAMPTON UNIVERSITY

“It may be verbal – the car letting you know whether it’s slowing down or speeding up, that it’s detected a vehicle in its path,” says Stanton. “It can tell you what it has detected. But you will also see what it has not detected and that’s really important.”

Stanton believes the solution is to prevent drivers from getting bored. “When the car takes over, people quickly get bored. They start picking up their phone. Automated driving is inherently boring; you have nothing to do.”

DRIVING WITHOUT ONE’S FULL ATTENTION ON THE ROAD IS A HAZARD TO PEDESTRIAN AND PASSENGER ALIKE. DRIVERS SHOULD BE AWARE THAT ANY DISTRACTIONS WHICH COULD MAKE THEIR DRIVING DANGEROUS COULD RESULT IN POLICE ACTION. DEPARTMENT FOR TRANSPORT



Another danger is that drivers can become overconfident in the accuracy of automated systems. They need to realise that these systems have weaknesses – for instance, when lane markings aren’t clear. They must learn how much trust to put in the system.

In addition, Professor Stanton says that when semi-autonomous cars revert to manual mode there needs to be some sort of handshake, giving drivers time to switch back on. “Our studies show it takes some time to bring people back, even if they have been attending. There’s a very different sort of attention when you are sitting there in passenger mode compared to when you are in control. Observation is very different to active control.”



Training and skills

It isn't just technology that can help solve this problem. Training is also part of the solution. Dr Dorn wants fleet managers to take more of a lead. "They need to give drivers sufficient training on the behavioural side of ADAS," she says. "This training should be given before a driver is expected to drive a new vehicle with new systems and functions they have no experience with. Fleet managers need to talk to drivers about becoming too trusting of this technology and disengaging from the driving task."

This, however, raises concerns over the demise of the very expert who has, traditionally, encouraged safer professional driving; the fleet manager. The issue was aired by Fleet News in 2017.¹⁹ While acknowledging their expertise as 'invaluable', the report – *Fleet and your future: The changing face of the fleet manager* – said that the traditional fleet manager's role was 'under threat'.

It reported that a growing number of organisations were handing 'all control of their fleet to a third party, retaining only the slimmest of KPI-based supply chain management responsibilities within a procurement or finance function'. In cases where driver risk management has previously fallen under the remit of a fleet manager, it is not always clear which business function should take on this responsibility, when the fleet manager role is dissolved due to fleet services being outsourced.

According to Professor Stanton, advanced driving techniques (such as those taught by IAM RoadSmart) offer good strategies for individual drivers to help avoid distraction. He expands on driver training in *Changing drivers' minds: the evaluation of an advanced driver coaching system*.²⁰

The benefits of this type of training

include "demonstrable improvements in their driving technique in terms of 18 critical variables including concentration, observation, anticipation, hazard assessment and management, speed limits, mirrors, signals and safe progress."

In addition, perhaps there should be a requirement for drivers, including those driving for work, to demonstrate their understanding of driver assistance (ADAS) features before being allowed to use them? Another approach would be for manufacturers to ensure that advanced features, which could cause distraction, remain beyond the reach of drivers until they prove their ability to understand them.

Help from employers

The authoritative FN 50 report 2018, produced by Fleet News, based on audits of the top 50 leasing companies in the UK, shows that the percentage of vehicles incurring damage recharges at end of contract has risen for both cars (up two percentage points from 37% to 39%) and vans (up four percentage points from 40% to 44%). The average amount that van operators are being recharged has fallen from £414 last year to £376 but for cars it's an upward trajectory. FN 50 says that last year, the average recharge for cars broke the £300 mark for this first time and it has risen a further £14 this year to £322.

Perhaps underlining the lack of training, FN 50 also reports that fines and charges incurred by drivers of FN50 vehicles are reaching record levels. The suggestion is the total bill could be almost £56 million. The incentive for employers to act on potential driver distractions, by improving risk management policy and driver training, is significant. The report cites Peter Eldridge, sales and marketing director of ICFM (The Institute of Car Fleet Management), who said: "Employer and employee need to step up to the plate and re-evaluate themselves in terms of their education, knowledge, skill and accreditation."



In 'What is the true cost of a collision?'²¹ Fleet News says that paying the cost of vehicle repair or insurance excess is just the tip of the iceberg, with the true cost of a collision being much greater.

Costs include losing key personnel to injury or ill-health, loss of business, potential loss of reputation and the expense of hiring replacement vehicles while company cars or vans are off the road.

Fleet News reports: "The aim of highlighting the total cost of crashes to a board is to win investment and backing to either introduce a road risk programme or improve a current one to help reduce the number of collisions."

The report says that one expert, Andy Price, director of consultancy Fleet Safety Management, highlights the importance of addressing road risk by calculating how much revenue a company with an average claim cost of £1,000 would have to make to pay for its collisions. If that company has a claim frequency of 25% and profitability of 10%, every vehicle on the fleet – not just those involved in a collision – has to generate £5,000 of revenue to fund the uninsured losses associated with the collisions it is having.

If the incident rate is higher or the profitability lower, then this figure will be even greater. Presenting the total cost of crashes to a company in this way is a 'real eye opener', says Price, and can help win buy-in to a risk management programme which will help to cut the number of collisions.

Minimising the cost of crashes and distraction can start with vehicle selection, says Fleet News. Cars or vans fitted with advanced driver assistance systems (ADAS) such as blind spot warning and parking assistance will reduce the likelihood of being involved in a collision.

A separate Fleet News report²², 'Fleets Can Play A Greater Role in Preventing Collisions', states that many of the contributing factors that affect the severity of an incident can be managed by employers or fleet managers.

Quoting Simon Hall, senior TRL consultant, the article says that the human, vehicle and environmental factors that take place prior to a crash are the ones that fleet operators have the most control over.

"It's generally accepted that human factors cause 95% of collisions," he added, saying that many of the human factors can be controlled through training and fleet policy. Risk acceptance can be a key issue as individual drivers have differing levels of risk acceptance. Young male drivers often have the highest, according to Hall.

He said: "If you are involved in running a fleet you have to be aware of your driver's risk acceptance levels and their training." Fleet News emphasised that impairment through drink, drugs or tiredness was often a key factor too, as was 'distraction from the use of mobile phones or other technology'.

Hall told Fleet News that simply putting drivers in for training after a crash was not enough. "You take a driver out for training, they'll drive beautifully because it's not a driving issue – it's a management issue. You need to sit him down and talk to him. Your post-incident response should look into why the crash happened."

Help from technology

Already, inroads have been made by communications giants such as Apple. For example, in 2014, Apple introduced CarPlay, letting iPhone users transfer tasks normally completed on the phone to their car's own built-in display. In 2017 it launched a "Do not disturb while driving" feature: iPhones detect when a user is driving through vehicle movement or Bluetooth connections, automatically silencing notifications to keep the screen dark. Users can programme the system to send an automatic reply, letting callers know they are driving and cannot respond until later.

Some experts still, however, question whether aids such as these entirely eliminate the distraction.

Dr Kinnear believes there is a need for greater collaboration between vehicle manufacturers and technology providers to establish the safest ways of operating modern technologies in the vehicle, and stopping technologies that are potentially distracting. "Whatever they put in place must take account of the safety of drivers using them. Otherwise people won't use new technologies properly, thinking they are getting a safety benefit when they are not," he says.

Another important element of technology is the ability to monitor drivers. Colin Grover says that evolving systems which continually monitor drivers' attention, such as Cadillac's Super Cruise, which uses cameras to ensure that motorists remain focused on the road ahead, will increasingly make roads safer.

Other vehicle makers have acted too. Many cars now automatically reduce the volume of music or speech played over the speakers at key moments – when reversing or listening to warnings or sat-nav instructions, for instance. Others have installed head-up displays which project information such as speed and sat-nav directions onto the inside of the windscreen, to save drivers from glancing down.

Ford's SYNC operating system sends texts dictated by the driver and reads incoming texts aloud. Bosch, meanwhile, is developing gesture controls which, in concept vehicles, let drivers make hand signals, picked up by ultrasound, to change sat-nav or audio settings and control car features.

It will continue to be debated whether applications such as these constitute a distraction or whether they help drivers concentrate on the task in hand. By contrast, Ford's MyKey feature allows parents to actively block calls and texts when teens are driving, ensuring that they are not distracted.

Using the law

Legislation also has a part to play. *What's the law got to do with it?*²³ proposes that new in-car devices should be thoroughly tested to assess their potential for distraction. It suggests that legislation should place responsibility for incidents on manufacturers who do not limit the use of distracting tasks while driving, through freeze-out mechanisms, limited functioning or voice-activated alternatives.

Of course, the law on its own may not alter public attitudes. The change in the law on drink-driving was accompanied for many years by TV advertising designed to make people aware of the consequences of driving when drunk. As Professor Neville Stanton puts it: "The same level of risk should be attributed to distracted driving as drink-driving and speeding behaviour, making it socially unacceptable."



There is also a feeling that there is a need for Government to provide more clarity on corporate fleet strategy, especially against a backdrop of uncertainty over many of the key issues affecting fleets.

Explains Tony Greenidge, IAM RoadSmart's Business Development Director: "Unfortunately there is considerable uncertainty over key issues that are affected by government policy, issues that directly impact on businesses with regard to their fleets. These areas include VED rates, BIK rates, changes to fuel efficiency ratings as well as grants for electric cars".

Mr Greenidge says that the cost of committing to a long-term fleet strategy can be very high for any organisation, and that having to anticipate how government policy might affect the above factors in the future, particularly with Brexit looming, makes the task even harder and potentially more costly. He adds: "This in turn can push major concerns such as those over safety, or the cost of collisions to the bottom of the to-do list."

Conclusion

There is one inescapable conclusion. Despite the best efforts of the legislators, road safety experts, numerous fleet experts, and the never-ending flow of new in-car technology aimed at making us safer, drivers will continue to become distracted as long as they are left in control of their vehicles.

Nowhere is this challenge more pressing than for those driving for work, who are constantly under time and cost pressures, never more so than today with the rise of the smartphone. Human nature means that from time to time, even the most determined might inevitably, if momentarily, fail. This must be particularly true for drivers at work, who often spend many hours behind the wheel.

All it takes to undo a lifetime's attentive and careful driving, even for a highly trained driver, is one unintended moment of distraction. In a world where almost all of us have become highly dependent on the ever-present smartphone, satellite navigation instructions and increasingly rich in-car entertainment, it has never been harder to concentrate on the task in hand; never harder for business to strike the right note on driving-for-work policy.

This is why it is imperative that fleet managers – and their leaders – take a fresh look at professional driver training, to ensure that their employees reach the very highest standards – in the best vehicles available.

This can only succeed if it is fully backed by a thorough company driver policy – a policy that is rigorously enforced and regularly audited, and that results in demonstrably better driver behaviour. Driver policy cannot exist in a vacuum, which is why it is equally critical that it becomes enshrined in business culture – supported at the highest echelons of every organisation.

As Lisa Dorn emphasises, much responsibility also lies with fleet managers, to ensure that those driving for work – those who are often the first to benefit from the newest cars, equipped with the very latest driver aids and therefore potentially prone to distraction – are taught how to use them safely and to best advantage.

Human error is a factor in around 95% of road incidents. Until

the driver is removed entirely from the task of controlling the car, truck or van, there is little hope that those depressing DfT statistics on road casualties will show a major improvement.

Even on the technology front there are mixed messages from experts. Some insist ADAS is already improving the situation. Others say motorists – particularly fleet or business motorists – are failing to keep pace with systems that are available, and that existing technology is lulling many into a false sense of security.

Thatcham's Colin Grover, who champions the impressive advances the motor industry has made on the technology front in recent years, nevertheless takes a very down-to-earth view of the problem.

“We shouldn't forget that ultimately, it all comes down to the will of the individual. Until we get the fully autonomous vehicle, controlling the car is something the driver must continue to take full responsibility for. People need to be responsible. If they're there to drive a vehicle, they must not allow themselves to be distracted.”

Highways England has been entirely right to remind us, repeatedly, over the past year, that about one third of all road crashes on Britain's road network involve people driving to and from work; a disturbing statistic.

It is time for business to ask itself some hard questions: Is this sustainable? What is the true, wider impact of this growing pressure on employees in terms of driver performance? How can the balance best be struck between having employees constantly at-hand on their smartphone – and profit? Is our rush to 'get the job done' creating a false economy, given the high cost of fuel-use, damage, down-time and collisions?

Now is the time for business to double down on safety at work by taking a fresh look at its policies, its training, and their effect on those who drive for work. Not just for the good of their professional reputation, the safety of their employees and for the good of their bottom line – but also for the good of all road-users everywhere.



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