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Autonomous trucks : an affront to masculinity?

Autonomous (or self-driving) vehicle technology has become a commercial reality in a number of cars being driven on public roads around the globe. However, this technology is not only confined to cars. It is equally applicable to trucks and there is speculation that it will be autonomous trucks that will hit the roads first because they operate in “a less complicated traffic environment” and are therefore ideal starting points for the coming automated vehicle market¹. For example, in May 2015, authorities granted a license to Daimler to test its self-driving trucks on public roads in the US State of Nevada.² These use a series of different technologies, including video cameras and radar, which, when applied in an incremental way, allow drivers to take breaks, although there must always be a qualified driver at the wheel³. It is clear to see the benefits of self-driving trucks to trucking companies, who could use them to transport goods across much longer distances and without all of the scheduled breaks than is presently possible with human truck drivers. But what about the impact on the image of the retained drivers themselves? Traditionally, truck drivers have been men and this representation is well-entrenched in a variety of media. Does the introduction of self-driving truck technology represent an attack on the masculinist truck driving culture as portrayed in TV shows such as 'Ice Road Truckers' or 'Outback Truckers'. If so, is such a change to be encouraged or is the historical image (though objectionable to some) worthy of protection? Given that self-driving trucks could be available for purchase from the middle of the coming decade, the socio-legal aspects of self-driving truck technology will be reflected on and the degree to which this issue can be contemplated at law addressed.

Keywords: Technological enhancement; autonomous trucks; gender stereotypes; law.

¹ <https://www.theguardian.com/technology/2015/may/06/nevada-self-driving-trucks-public-roads-daimler-inspiration>, last accessed 15 December 2016.

² <https://www.theguardian.com/technology/2015/may/06/nevada-self-driving-trucks-public-roads-daimler-inspiration>, last accessed 15 December 2016.

³ M Taylor and P Maynard, “Self-driving cars” (2015) 21(5), CTLR 133, 134.

INTRODUCTION

This article evaluates whether an envisaged change to autonomous trucks will negatively impact the nostalgic image of truck drivers. It begins by exploring whether autonomous trucks represent a commercially pertinent means of supplanting human drivers with artificial intelligence, before evaluating the concept of “platooning” as the preferred method of their introduction and the reasons why platooning may not to be universally welcomed throughout society. An evaluation of the impact both on the workplace given the several concerns about jobs in the trucking sector and on the image of truckers, whose role, following the introduction of autonomous trucks, would become little more than a supervisory one is also provided. The article then proceeds to query the reach of the law in this context, suggesting that the answer to the challenge ultimately rests with a change in societal perceptions, as opposed to in law.

Since the focus of the article is autonomous trucks, given the sheer size of the US trucking industry, much of the research in this area comes from the US. Whilst the UK experience is focused on in this article and the law of England and Wales evaluated throughout, US materials are referred to as appropriate, not least because, despite the differences in, inter alia, laws and culture between the UK and the US, there are many issues relating to autonomous trucks that are common to both jurisdictions.

Autonomous Vehicles : Trucks or Cars first?

There are various levels of autonomy for autonomous (or self-driving) vehicles, with different bodies using different language. The UK government specifies 2 levels : High Automation and Full Automation. High Automation requires the driver to be present and take control for parts of the journey, for example under tricky weather conditions. As will be seen, at current levels of trialling, autonomous trucks would fall into this category. By contrast, Full Automation won’t require a driver at all and passengers will be able to engage in tasks other than driving for the entire journey⁴.

In the UK, the Department for Transport has stated that it intends for “the UK to be at the forefront of testing and development of the technologies that will ultimately realise the goal of driverless vehicles”⁵ and autonomous vehicle technology has become a commercial reality in a number of cars

⁴ Department for Transport (2015) *Pathway to driverless cars: Summary report and action plan*, London, 18. Available at

http://www.legco.gov.hk/general/english/library/stay_informed_overseas_policy_updates/the_pathway_to_driverless_cars.pdf, last accessed 15 June 2017

⁵ Department for Transport (2015) *Pathway to driverless cars: Summary report and action plan*, London, 7. Available at

being driven on public roads in the UK and around the globe. KPMG predict that there will be a 25% penetration of fully autonomous vehicles by 2030⁶ and that the introduction of this technology is “inevitable”⁷. It has been argued that autonomous vehicles offer a wealth of social and economic benefits, not least in terms of safety, economic, environmental and social advantages, that could profoundly change our lives for the better⁸. By way of example, congestion and emissions are likely to be significantly improved. It is expected that, as technology advances and vehicles become fully autonomous and able to co-ordinate with one another, this will significantly improve traffic flow once high levels of penetration have been achieved⁹; Scania have estimated that AV technology in their truck fleet would be able to reduce fuel consumption and emissions by 10%¹⁰. Safety is a major attraction because autonomous vehicles will have a better safety track record than human drivers¹¹. Some 90-95% of traffic collisions have human error as a contributing factor, thus it is projected that autonomous vehicles will significantly reduce collision rates¹². The increase in safety and reduction in collisions is one of the primary reasons why the UK government is pursuing autonomous vehicle development, though will require high penetration of autonomous vehicles in the fleet to be realised. Some of the other substantive benefits of autonomous vehicles pertaining to safety and economy are considered further below.

Clearly, autonomous vehicle technology is not only confined to cars. It is equally applicable to trucks and there is speculation that it will be autonomous trucks that will hit the roads first because they operate in “a less complicated traffic environment” and are therefore ideal starting points for the coming automated vehicle market¹³.

http://www.legco.gov.hk/general/english/library/stay_informed_overseas_policy_updates/the_pathway_to_driverless_cars.pdf, last accessed 15 June 2017

⁶ KPMG (2015) *Connected and Autonomous Vehicles – The UK Economic Opportunity*, page 9. Available at <https://www.smmr.co.uk/wp-content/uploads/sites/2/CRT036586F-Connected-and-Autonomous-Vehicles-%E2%80%93-The-UK-Economic-Opportu...1.pdf>, last accessed 15 June 2017.

⁷ KPMG (2012) *Self-driving cars: The next revolution*, Section 1. Available https://assets.kpmg.com/content/dam/kpmg/pdf/2015/10/self-driving-cars-next-revolution_new.pdf, last accessed 15 June 2017

⁸ Department for Transport, “The Pathway to Driverless Cars” (2015), 6. Report available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/401562/pathway-driverless-cars-summary.pdf, last accessed 15 June 2017.

⁹ Synder, R (2016) “Implications of Autonomous Vehicles: A Planner’s Perspective”, *ITE Journal* 86(12) 25-28

¹⁰ Begg, D (2014) “A 2050 Vision for London: What are the Implications of Driverless Transport”, page 26. Available at http://www.transporttimes.co.uk/Admin/uploads/64165-transport-times_a-2050-vision-for-london_aw-web-ready.pdf, last accessed 15 June 2017

¹¹ See, further, below

¹² House of Lords Science and Technology Committee, *Connected and Autonomous Vehicles : The future?*, 2nd Report of Session 2016-17, 15 March 2017 - HL Paper 115, page 27, available at <https://www.publications.parliament.uk/pa/ld201617/ldselect/ldscitech/115/115.pdf>, last accessed 7 June 2017

¹³ <https://www.theguardian.com/technology/2015/may/06/nevada-self-driving-trucks-public-roads-daimler-inspiration>, last accessed 15 December 2016.

It has recently been observed that “The era of driverless trucks may be a lot closer to reality than many people think”¹⁴ and the consensus among industry veterans appears to be that driverless trucks will become commercially available before autonomous cars¹⁵. The International Bar Association (IBA) argues that the development of autonomous transportation vehicles, specifically driverless trucks, represents a logical next step in the development of autonomous driving¹⁶. It has been stated that, whilst autonomous cars are sexy, trucks are more practical¹⁷ and they could be here sooner than cars, because the industry desperately needs them. In the UK, almost 95% of goods are transported by truck¹⁸. Similarly, the US trucking industry hauls 70 percent of the nation’s freight—about 10.5 billion tons annually—and simply doesn’t have enough drivers. The American Trucking Association pegs the shortfall at 48,000 drivers, and says it could hit 175,000 by 2024¹⁹.

There could be considerable benefits of autonomous trucks because they do not need to take breaks, are available day and night, do not tire and do not fail as often as humans fall ill or are absent²⁰. Additionally, the autonomous truck, unlike a traditional truck driver, would not need to stop to sleep at night, permitting the truck to travel greater distances faster than a traditionally driven truck. A key safety benefit could be a significantly reduction in serious accidents. In 2012, according to The National Highway Traffic Safety Administration, 333,000 large trucks were in crashes in the US. Those accidents killed nearly 4,000 people, the vast majority of whom were riding in passenger vehicles²¹. Replacing

¹⁴ Schulz, J D, “While no panacea, specter of driverless trucks offers hope for truck driver crisis”, *Logistics Management*, August 2015, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1710395197/fulltextPDF/F896CA4C43ED4B7BPO/1?accountid=14557>, last accessed 14 July 2017

¹⁵ Crandall, R and. Formby, S, “Is that a driverless truck alongside you?” *ISE Magazine* (The member magazine of the Institute of Industrial and Systems Engineers) June 2016 48(6), 26, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1806075451/fulltextPDF/92568BCB25BC4E3EPO/1?accountid=14557>, last accessed 14 July 2017

¹⁶ Wisskirchen, G et al, *Artificial Intelligence and Robotics and Their Impact on the Workplace* IBA Global Employment Institute, April 2017, at page 58. Report available at https://www.ibanet.org/LPD/Human_Resources_Section/Global_Employment_Institute/Global_Employment_Institute_Home.aspx#New_Report, last accessed 9 June 2017

¹⁷ Alex Davies, Ubers self-driving truck makes first delivery :50, 000-beers, *Wired*, 25 October 2016, available at <https://www.wired.com/2016/10/ubers-self-driving-truck-makes-first-delivery-50000-beers>, last accessed 22 Feb 2017

¹⁸ Stephen Handsley, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in “Gendered journeys, mobile emotions” G Letherby and G Reynolds (eds), Ashgate, 2009, at page 71.

¹⁹ Alex Davies, Ubers self-driving truck makes first delivery :50, 000-beers, *Wired*, 25 October 2016, available at <https://www.wired.com/2016/10/ubers-self-driving-truck-makes-first-delivery-50000-beers>, last accessed 22 Feb 2017. The number of miles driven by trucks on UK roads is estimated at 16 billion in 2014, an increase of two per cent over 2013. See <http://cars.aol.co.uk/2016/07/09/designers-reveal-stunning-autonomous-truck-concepts/>, last accessed 22 Feb 2017

²⁰ Wisskirchen, G et al, *Artificial Intelligence and Robotics and Their Impact on the Workplace* IBA Global Employment Institute, April 2017, at page 58. Report available at https://www.ibanet.org/LPD/Human_Resources_Section/Global_Employment_Institute/Global_Employment_Institute_Home.aspx#New_Report, last accessed 9 June 2017

²¹ Davies A, Mercedes Is Making a Self-Driving Semi to Change the Future of Shipping, *Wired* (Oct. 7, 2014), available at <http://www.wired.com/2014/10/mercedes-making-self-driving-semi-change-future-shipping>, U.S.

drivers, who make mistakes and get tired, with automated trucks that do not get tired, could significantly reduce those accidents and deaths. Therefore, it is at least arguable that driverless trucks will incorporate technology that can, inter alia, increase road safety and reduce human error²². Automotive experts predict that autonomous trucks, equipped with the latest safety equipment such as automatic emergency brakes, lane protection and blind spot sensors, largely will eliminate the effect of driver error and reduce accidents²³. Thus, removing drivers from trucks solves a lot of the problems facing the trucking industry - driver shortage, accidents and fuel costs (see below).

Whilst it has been advocated that autonomous vehicles represent an advanced technology that does not need humans to function²⁴, the same cannot actually be said in relation to autonomous trucks. This is because, at present, the tests of autonomous trucks that have taken place globally on open roads have drivers in the trucks in case of emergency. Much of the testing to date has involved the use of "HGV platoons"²⁵, where one lorry leads and makes the decisions for those behind that are wirelessly connected to form a road-train²⁶. In platooning, two or three trucks travel in tandem, one after the other, in closely spaced intervals. The lead truck has a driver and the following trucks use vehicle-to-vehicle communications to track closely behind the lead truck²⁷. The vehicles that have been tested in this configuration utilise a series of different technologies, including video cameras and radar, which, when applied in an incremental way, allow drivers to take breaks, although there must always be a qualified driver at the wheel.

The trialling of autonomous trucks to date has tended to take the form of platooning. For example, in October 2015, the German state of Baden-Wurtemberg approved trials of HGV platoons on its

Department of Transportation National Highway Traffic Safety Administration Traffic Safety Facts, 2012 Data, DOT HS 811 868 (May 2014), available at <http://www-nrd.nhtsa.dot.gov/Pubs/811868.pdf>

²² Schulz, J D, "While no panacea, specter of driverless trucks offers hope for truck driver crisis", *Logistics Management*, August 2015, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1710395197/fulltextPDF/F896CA4C43ED4B7BPQ/1?accountid=14557>, last accessed 14 July 2017

²³ Crandall, R and. Formby, S, "Is that a driverless truck alongside you?" *ISE Magazine* (The member magazine of the Institute of Industrial and Systems Engineers) June 2016 48(6), 28, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1806075451/fulltextPDF/92568BCB25BC4E3EPQ/1?accountid=14557>, last accessed 14 July 2017

²⁴ House of Commons Briefing Paper, "Connected and autonomous road vehicles", Number CBP 7965, 12 June 2017, 9, available at <http://researchbriefings.files.parliament.uk/documents/CBP-7965/CBP-7965.pdf>, last accessed 12 July 2017. See also <http://www.bbc.co.uk/news/technology-39495915>, last accessed 12 July 2017

²⁵ see below

²⁶ House of Lords Science and Technology Committee, Connected and Autonomous Vehicles : The future?, 2nd Report of Session 2016-17, 15 March 2017 - HL Paper 115, available at <https://www.publications.parliament.uk/pa/ld201617/ldselect/ldsctech/115/115.pdf>, last accessed 7 June 2017, para 88

²⁷ Crandall, R and. Formby, S, "Is that a driverless truck alongside you?" *ISE Magazine* (The member magazine of the Institute of Industrial and Systems Engineers) June 2016 48(6), 28, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1806075451/fulltextPDF/92568BCB25BC4E3EPQ/1?accountid=14557>, last accessed 14 July 2017

autobahns²⁸. Kunze et al. have reported other trials involving multiple trucks on public German motorways²⁹ and a convoy of self-driving trucks has recently completed a European cross-border trip³⁰. Further afield, in May 2015, the first self-driving truck hit the American public road, when US authorities granted a license to Daimler to test its self-driving trucks in the State of Nevada³¹. Since then, several states have laid the groundwork for a future with fewer truckers. California, Florida, Michigan and Utah have all passed laws that allow trucks to drive autonomously in platoons³² and multiple companies are now testing self-driving trucks³³.

Within the UK, platooning also appears to be the preferred method of testing. This stance was reiterated in the most recent report of the House of Lords Science and Technology Committee, published March 2017³⁴, which concludes that “*platooning of trucks could be an early example of CAV (connected and autonomous vehicles) deployment on roads and the Government should ensure that it carries out an early evaluation of the potential applications of connected and autonomous larger vehicles used for freight and logistics*”³⁵. Platooning was said to bring benefits in relation to fuel economy, the environment, safety and congestion³⁶.

In addition to the safety enhancements detailed above, it has been well documented that one of the main advantages of using HGV platoons is that they allow drivers to move more closely to each other in convoy than would be safe otherwise³⁷. This leads to higher fuel economy, thanks to reduced air

²⁸ <https://www.trucklocator.co.uk/hub/driverless-trucks-platooning-news/>, last accessed 22 Feb 2017

²⁹ Kunze R, Ramakers R, Henning K, and Jeschke S (2009) Organization of electronically coupled truck platoons on German motorways, *Intelligent Robotics and Applications: Second International Conference*, vol. 5928, pp. 135–146.

³⁰ <https://www.theguardian.com/technology/2016/apr/07/convoy-self-driving-trucks-completes-first-european-cross-border-trip>, last accessed 9 June 2017

³¹ <https://www.theguardian.com/technology/2015/may/06/nevada-self-driving-trucks-public-roads-daimler-inspiration>, last accessed 9 June 2017

³² Rushe D, “End of the road: will automation put an end to the American trucker?” *The Guardian*, 10 October 2017, available at <https://www.theguardian.com/technology/2017/oct/10/american-trucker-automation-jobs>, last accessed 3 November 2017

³³ <https://www.technologyreview.com/s/603493/10-breakthrough-technologies-2017-self-driving-trucks/>, last accessed 14 June 2017

³⁴ House of Lords Science and Technology Committee, *Connected and Autonomous Vehicles : The future?*, 2nd Report of Session 2016-17, 15 March 2017 - HL Paper 115, available at <https://www.publications.parliament.uk/pa/ld201617/ldselect/ldsctech/115/115.pdf>, last accessed 7 June 2017

³⁵ House of Lords Science and Technology Committee, *Connected and Autonomous Vehicles : The future?*, 2nd Report of Session 2016-17, 15 March 2017 - HL Paper 115, available at <https://www.publications.parliament.uk/pa/ld201617/ldselect/ldsctech/115/115.pdf>, last accessed 7 June 2017, para 92

³⁶ House of Lords Science and Technology Committee, *Connected and Autonomous Vehicles : The future?*, 2nd Report of Session 2016-17, 15 March 2017 - HL Paper 115, available at <https://www.publications.parliament.uk/pa/ld201617/ldselect/ldsctech/115/115.pdf>, last accessed 7 June 2017, para 89

³⁷ Christ, G, “The Driverless Fleet: A High Tech Convoy to the Future” *EHS Today*, New York, December 8 2015) 26-27, 27, available at <https://search-proquest->

resistance of shared slipstreams, as well as lowered travel times from higher capacity networks (a result of shorter headways and less incident-prone traffic conditions)³⁸. Bullis estimates that 4 meter inter-truck spacings could reduce fuel consumption by 10–15%, and, because road-train platoons facilitate adaptive braking, this could potentially enable further fuel savings, which could be up to 5 percent for the lead truck and 10 percent for the trailing trucks. Others predict cost saving of up to 28 per cent as logistics become cheaper, more reliable and more flexible³⁹. Additionally, the trucks behind the lead truck also may have drivers who could relieve the driver in the lead truck to reduce fatigue and the time needed for rest stops. If the trailing trucks do not have drivers, there could be the added savings of reduced driver wages and, additionally, it is unclear whether companies will be required to pay drivers for the time they spend in the back (as opposed to front) of the cab⁴⁰.

What is clear is that the level of truck automation currently being developed will not eliminate the need for a truck driver. It is envisaged that it will take a considerable amount of time before we will see full self-driving (as opposed to semi-autonomous) trucks on the open road. The American Trucking Association expects that autonomous trucks will take decades to roll out and require a human to still be in the truck in the meantime⁴¹. However, when they do come, autonomous trucks will cause a shift in the labour force because many (human) truck drivers would ultimately be displaced⁴² and it has been argued that autonomous trucks represent one of the biggest changes to the jobs market since the invention of the automated loom⁴³. Certainly, in the UK, it has been acknowledged that recent developments in semi-autonomous trucks and HGV platooning have led to concerns about jobs in the trucking sector⁴⁴. This observation is supported by The International Bar Association (IBA), who recently warned that the rapid rise in Artificial intelligence in general and automation in particular would fundamentally change the world of work for truckers across the globe⁴⁵ who would ultimately

com.ezproxy.kingston.ac.uk/docview/1746806574/2AEC586A07154F0APQ/1?accountid=14557, last accessed 14 July 2017

³⁸ Fagnant, D and Kockelman, K “Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations”, *Transportation Research*, Part A 77 (2015) 167–181, 170, available at <http://www.sciencedirect.com/science/article/pii/S0965856415000804?via%3Dihub>, last accessed 14 July 2017

³⁹ Wisskirchen, G et al, *Artificial Intelligence and Robotics and Their Impact on the Workplace* IBA Global Employment Institute, April 2017, 58

⁴⁰ <https://www.technologyreview.com/s/603493/10-breakthrough-technologies-2017-self-driving-trucks/>, last accessed 14 June 2017

⁴¹ McFarland M, How Ohio's gamble on self-driving trucks could backfire, CNN, December 6, 2016, available at <http://money.cnn.com/2016/12/06/technology/ohio-autonomous-trucks>, last accessed 22 Feb 2017.

⁴² Fagnant, D and Kockelman, K “Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations”, *Transportation Research*, Part A 77 (2015) 167–181, 175, available at <http://www.sciencedirect.com/science/article/pii/S0965856415000804?via%3Dihub>, last accessed 14 July 2017

⁴³ Rushe D, “End of the road: will automation put an end to the American trucker?” *The Guardian*, 10 October 2017, available at <https://www.theguardian.com/technology/2017/oct/10/american-trucker-automation-jobs>, last accessed 3 November 2017

⁴⁴ House of Commons Briefing Paper, “Connected and autonomous road vehicles”, Number CBP 7965, 12 June 2017, 25, available at <http://researchbriefings.files.parliament.uk/documents/CBP-7965/CBP-7965.pdf>, last accessed 12 July 2017. See also <http://www.bbc.co.uk/news/technology-39495915>, last accessed 12 July 2017

⁴⁵ Wisskirchen, G et al, *Artificial Intelligence and Robotics and Their Impact on the Workplace*

become obsolete in the distant future⁴⁶, thereby necessitating extensive retraining to reintegrate displaced drivers into other meaningful employment. The fallout from the industry could be huge - it is estimated that the likelihood that these drivers will lose their jobs is about 90%⁴⁷.

Accordingly, this anticipated change in the workplace could be of “historic proportions”⁴⁸. Autonomous truck technology will most certainly make the driver’s duties less demanding⁴⁹ and it will take time for society to embrace the concept of the driverless truck, as illustrated below. Given the reduced emphasis on the actual duties imposed on the reduced number of truckers that do remain, the following section seeks to provoke reflection on the way in which driverless trucks may impact the traditional perception of masculinity attaching to truck drivers.

Truck Drivers, Masculinity, and Driverless Trucks

When it comes to the haulage of goods along the motorways at high speeds, truck driving is an industry that carries with it a certain degree of risk greater than you would find in most professions⁵⁰. Of all the high-speed crashes on UK motorways, trucks and other forms of HGV’s were involved in more than half of those that proved fatal, despite only accounting for 10% of vehicles on roads⁵¹. Human error is the primary cause of more than 80% of crashes⁵². In the United States, in 2014 there were 3,903 people killed (the vast majority (73 percent) of whom were riding in passenger vehicles) and an estimated 111,000 people injured in crashes involving large trucks. An estimated 438,000 large trucks

IBA Global Employment Institute, April 2017, at page 58. Report available at https://www.ibanet.org/LPD/Human_Resources_Section/Global_Employment_Institute/Global_Employment_Institute_Home.aspx#NewReport, last accessed 9 June 2017

⁴⁶ Wisskirchen, G et al, Artificial Intelligence and Robotics and Their Impact on the Workplace IBA Global Employment Institute, April 2017, at page 11. Report available at https://www.ibanet.org/LPD/Human_Resources_Section/Global_Employment_Institute/Global_Employment_Institute_Home.aspx#NewReport, last accessed 9 June 2017

⁴⁷ Wisskirchen, G et al, Artificial Intelligence and Robotics and Their Impact on the Workplace IBA Global Employment Institute, April 2017, at page 59. Report available at https://www.ibanet.org/LPD/Human_Resources_Section/Global_Employment_Institute/Global_Employment_Institute_Home.aspx#NewReport, last accessed 9 June 2017

⁴⁸ Rushe D, “End of the road: will automation put an end to the American trucker?” *The Guardian*, 10 October 2017, available at <https://www.theguardian.com/technology/2017/oct/10/american-trucker-automation-jobs>, last accessed 3 November 2017

⁴⁹ Crandall, R and Formby, S, “Is that a driverless truck alongside you?” *ISE Magazine* (The member magazine of the Institute of Industrial and Systems Engineers) June 2016 48(6), 28, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1806075451/fulltextPDF/92568BCB25BC4E3EPO/1?accountid=14557>, last accessed 14 July 2017

⁵⁰ <http://www.shponline.co.uk/how-safe-will-smart-autonomous-trucks-be/>, last accessed 22 Feb 2017

⁵¹ <http://www.shponline.co.uk/how-safe-will-smart-autonomous-trucks-be/>, last accessed 22 Feb 2017

⁵² <http://www.wrshlaw.com/blog/truck-accident/how-human-factors-cause-large-truck-accidents>, last accessed 9 June 2017

were involved in police-reported traffic crashes during 2014. This compares with 2012 when 333,000 large trucks were in crashes in the US. Those accidents killed 3,921 people⁵³.

As indicated above, the technology incorporated in driverless trucks will reduce human error⁵⁴ which is expected to significantly improve accident statistics. However, despite this and the many other eventual advantages of platooning, it will no doubt take time for society to respond positively to a lack of driver in a vehicle forming an HGV platoon. In the meantime, there is likely to be an initial perception that these systems are potentially unsafe because of the lack of a human driver⁵⁵. The Department of Transport in the UK has recently acknowledged that public perception and attitudes towards autonomous technologies are likely to be important factors in the level and pace of adoption⁵⁶. Perception issues have often been known to drive policy and could delay implementation⁵⁷ meaning that the perceived advantages of the technology are further away than anticipated. The UK experience again presents a perfect example of this. In March 2016, the UK government announced that it wanted to test platooning convoys of driverless trucks on British roads. At the time, a number of manufacturers were said to have expressed an interest in the trials, and Daimler, Daf, Iveco, MAN, Scania and Volvo indicated their continued involvement in developing platooning systems. Indeed, a spokesman for Scania, which has run platooning trials in Sweden indicated “We have been involved in platooning for some time. We have developed the technology and so we will be interested in the UK trial”⁵⁸. Later in 2016, it was widely reported that trials of driverless trucks would take place on the M6 in Cumbria, a portion of UK motorway that is relatively quiet with larger sections between junctions⁵⁹. However, the big European truckmakers have not yet indicated their willingness to take part, suggesting that UK driverless truck trials appear to have stalled somewhat from initial expectations⁶⁰.

⁵³ U.S. Department of Transportation National Highway Traffic Safety Administration Traffic Safety Facts, 2012 Data, DOT HS 811 868 (May 2014), available at

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811868>, last accessed 20 Feb 2017.

⁵⁴ Schulz, J D, “While no panacea, specter of driverless trucks offers hope for truck driver crisis”, *Logistics Management*, August 2015, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1710395197/fulltextPDF/F896CA4C43ED4B7BPQ/1?accountid=14557>, last accessed 14 July 2017

⁵⁵ ENO Centre for Transportation, *Preparing a Nation for Autonomous Vehicles Opportunities, Barriers and Policy Recommendations*, October 2013, 12, available at https://www.cae.utexas.edu/prof/kockelman/public_html/ENOREport_BCAofAVs.pdf, last accessed 13 June 2017

⁵⁶ House of Commons Briefing Paper, “Connected and autonomous road vehicles”, Number CBP 7965, 12 June 2017, 9, available at <http://researchbriefings.files.parliament.uk/documents/CBP-7965/CBP-7965.pdf>, last accessed 12 July 2017. See also <http://www.bbc.co.uk/news/technology-39495915>, last accessed 12 July 2017

⁵⁷ Fagnant, D and Kockelman, K “Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations”, *Transportation Research*, Part A 77 (2015) 167–181, 177, available at <http://www.sciencedirect.com/science/article/pii/S0965856415000804?via%3Dihub>, last accessed 14 July 2017,

⁵⁸ Shone E, “Driverless truck trial gets official green light”, *Commercial Motor*, 4 March 2016, 2

⁵⁹ <http://www.bbc.co.uk/news/uk-politics-35737104>, last accessed 6 June 2017.

⁶⁰ <https://www.ft.com/content/0eaef0be-aa88-11e6-9cb3-bb8207902122>,

Not only truck makers, and truckers themselves, but also other road users appear to show a degree of animosity towards the development of autonomous platooning technology for trucks in the UK. This animosity was reportedly due to the potential for truck platoons to cause congestion and the prospect of difficulty in overtaking a line of heavy lorries, especially in wet conditions⁶¹. Several studies, including that of Fagnant et al consider that tight vehicle spacing on roads could cause problems for other motorists trying to exit or enter highways, possibly resulting in the need for new or modified infrastructure with dedicated platoon lanes and thicker pavements to handle high truck volumes⁶². The UK's Road Haulage Association has recently argued that domestic roads may not be suitable for HGV platooning⁶³. Therefore, before autonomous trucks can be fully rolled out, it may well be necessary for Government officials to take into account the implications of other road users, insurance liability, legislation, infrastructure, congestion, the environment and many other issues that have, thus far, been given less attention than the technology. Several reports support this hypothesis⁶⁴.

As with other automated vehicle technology, it may well be that the technology will be readily developed before such considerations have been fully thought through. By way of illustration, in terms of the UK position, the Centre for Connected and Autonomous Vehicle (CCAV, which was formed by the UK Government in July 2015 to co-ordinate the Government's action on autonomous vehicles) has advocated that they want to make the minimum changes required at this stage of autonomous vehicle trialling and development and that they propose no fundamental revisions to existing legislation at this stage⁶⁵. The CCAV has instead proposed a rolling programme of reform which "will help to facilitate the introduction of innovative new technologies in a safe, agile and evidence-based manner for the benefit of UK consumers and business"⁶⁶. What this arguably means in relation to the introduction of autonomous truck technology is that the first applications will be in restricted areas

⁶¹ <https://www.theengineer.co.uk/326794-2/>, last accessed 6 June 2017

⁶² Fagnant, D and Kockelman, K "Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations", *Transportation Research*, Part A 77 (2015) 167–181, 172, available at <http://www.sciencedirect.com/science/article/pii/S0965856415000804?via%3Dihub>, last accessed 14 July 2017

⁶³ House of Commons Briefing Paper, "Connected and autonomous road vehicles", Number CBP 7965, 12 June 2017, 26, available at <http://researchbriefings.files.parliament.uk/documents/CBP-7965/CBP-7965.pdf>, last accessed 12 July 2017. See also <http://www.bbc.co.uk/news/technology-39495915>, last accessed 12 July 2017

⁶⁴ See, for example, KPMG (2012) *Self-driving cars: The next revolution*. Available https://assets.kpmg.com/content/dam/kpmg/pdf/2015/10/self-driving-cars-next-revolution_new.pdf, last accessed 15 June 2017

⁶⁵ Centre for Connected and Autonomous Vehicles, *Pathway to driverless cars: Consultation on proposals to support Advanced Driver Assistance Systems and Automated Vehicles - Government Response*, January 2017, available at <http://www.mass.org.uk/wp-content/uploads/2017/03/pathway-to-driverless-cars-consultation-response.pdf>, last accessed 7 June 2017

⁶⁶ Centre for Connected and Autonomous Vehicles, *Pathway to driverless cars: Consultation on proposals to support Advanced Driver Assistance Systems and Automated Vehicles - Government Response*, January 2017, 5, available at <http://www.mass.org.uk/wp-content/uploads/2017/03/pathway-to-driverless-cars-consultation-response.pdf>, last accessed 7 June 2017

such as warehouses, mines and ports, whereas a broader implementation in open roads will take considerable time⁶⁷.

The product of this delay in take-up is that, for the foreseeable future, human truck drivers themselves will remain an essential part of the autonomous truck proposition. However, the role of the truck driver will change because they would be expected to transition from *driving* a single truck to *monitoring* multiple trucks at once. Drivers would sit in the back of a cab, or in an office, and use a computer to track vehicles⁶⁸. This raises a number of important questions. The first concerns their classification as “drivers”. From a legal perspective, the test, under English law, of whether a person is physically driving a vehicle is derived from *R v MacDonagh*⁶⁹ and is the person [he or she] “in a substantial sense controlling the movement and direction of the car”. This classification is likely to require refinement in the context of autonomous trucks as who or what is actually doing the driving will become increasingly less clearly defined. Indeed, the National Highway Traffic Safety Administration (NHTSA) of US has announced that they will interpret 'driver' in the context of autonomous vehicles as referring to the self-driving system⁷⁰ : “If no human occupant of the vehicle can actually drive the vehicle, it is more reasonable to identify the driver as whatever (as opposed to whoever) is doing the driving”⁷¹.

In addition, in an autonomous truck, drivers would effectively become (short-lived) harbour pilots, bringing the ship to port⁷², at which point, they may effectively sit back and relax⁷³. Not only is their classification as “driver” up for debate, but their very reputation is at stake. This is because, through a variety of media, such as 'Ice Road Truckers' and 'Outback Truckers', the prevailing perception of truck drivers, is that they have acquired a reputation, through their occupation, of being intrepid men. It has been argued that “The romantic image of a truck driver has long captured the imagination ... part of the fantasy is the almost cowboy-like existence in which the adventurous vigilante hero

⁶⁷ Crandall, R and Formby, S, “Is that a driverless truck alongside you?” *ISE Magazine* (The member magazine of the Institute of Industrial and Systems Engineers) June 2016 48(6), 31, available at <https://search-proquest-com.ezproxy.kingston.ac.uk/docview/1806075451/fulltextPDF/92568BCB25BC4E3EPQ/1?accountid=14557>, last accessed 14 July 2017

⁶⁸ McFarland M, How Ohio's gamble on self-driving trucks could backfire, CNN, December 6, 2016, available at <http://money.cnn.com/2016/12/06/technology/ohio-autonomous-trucks>, last accessed 22 Feb 2017.

⁶⁹ *R v MacDonagh* [1974] 1 QB 448. Appellant, whilst disqualified, was pushing a car with his shoulder and was not physically in the car. charged with driving the car while disqualified, contrary to section 99 (b) of Road Traffic Act 1972, but appeal was allowed; no conviction.

⁷⁰ <http://www.reuters.com/article/us-alphabet-autos-selfdriving-exclusive-idUSKCN0VJ00H>

⁷¹ <https://www.sciencealert.com/us-highway-authorities-concede-that-artificial-intelligence-can-legally-drive-a-car>, last accessed 12 June 2017

⁷² Davies A, Ubers self-driving truck makes first delivery :50, 000-beers, *Wired*, 25 October 2016, available at <https://www.wired.com/2016/10/ubers-self-driving-truck-makes-first-delivery-50000-beers>, last accessed 22 Feb 2017

⁷³ Davies A, Mercedes Is Making a Self-Driving Semi to Change the Future of Shipping, *Wired* (Oct. 7, 2014), available at <http://www.wired.com/2014/10/mercedes-making-self-driving-semi-change-future-shipping/>

eventually 'delivers the load'"⁷⁴. In the trucking industry, this has allowed for the portrayal of truck drivers as 'real men'.⁷⁵

Both historically and currently, the truck has been constructed as a masculine attribute⁷⁶. Several studies indicate that, culturally, truck driving is framed as appropriate, *naturally, for males*⁷⁷. Eastman et al observe that women truckers are seen as exceptions and this further bolsters such masculinization⁷⁸. Giving a child a toy truck is still very much considered to be a male norm⁷⁹ and the stereotypical image of a truck driver is that they are very obviously male⁸⁰. These sex-role stereotypes are largely still a reality within the trucking community. Despite efforts to break down notions of stereotyped employment by attracting women, this area of the transport industry has largely been male-dominated⁸¹. Truck driving is arguably the last bastion of machismo. Although there are more than 3 million truck drivers in the U.S., just 5.8% of truck drivers are women. This share has been essentially unchanged over time⁸². Females make up 47% of all U.S. workers, yet only comprise 6% of all truck drivers, according to the U.S. Department of Labour. The share of female drivers has remained stagnant between 4.5% and 6% since 2000⁸³. Other studies suggest the proportion of female truckers is even lower : at around 1%⁸⁴. The UK fares even worse : there are 300,000 truck drivers in the UK, of whom 1,600 (0.5%) are reportedly women⁸⁵.

⁷⁴ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 72

⁷⁵ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 72

⁷⁶ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 72

⁷⁷ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 418 (emphasis added)

⁷⁸ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 420

⁷⁹ Conry-Murray C and Turiel E, Jimmy's Baby Doll and Jenny's Truck: Young Children's Reasoning About Gender Norms, *Child Development*, January/February 2012, Volume 83, Number 1, Pages 146–158, page 149.

⁸⁰ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 72.

⁸¹ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 71.

⁸² Costello, B and Suarez R, Truck Driver Shortage Analysis 2015, available at <http://constructionequipment.s3.amazonaws.com/s3fs-public/ATAs%20Driver%20Shortage%20Report%202015.pdf>, last accessed 20 Feb 2017

⁸³ Costello, B and Suarez R, Truck Driver Shortage Analysis 2015, available at <http://constructionequipment.s3.amazonaws.com/s3fs-public/ATAs%20Driver%20Shortage%20Report%202015.pdf>, last accessed 20 Feb 2017

⁸⁴ Handsley S, Double clutchin', bucket tippin', juggernaut driving, truckin' time: a trucker's tale, in "Gendered journeys, mobile emotions" G Letherby and G Reynolds (eds), Ashgate, 2009, at page 72

⁸⁵ <https://www.theguardian.com/lifeandstyle/2013/apr/26/meet-women-doing-mens-work>, accessed 9 January 2017

The fact that truck driving has been portrayed as an occupation that is so central to men's (but not women's) lives⁸⁶ exacerbates this situation. Reviews suggest that many male truckers garner satisfaction from their work because trucking enables them to enact and affirm their identities as men⁸⁷. Certain studies go so far as to suggest that value is added to the occupation because being a truck driving man may give meaning and purpose to life⁸⁸ and that consequently even death is intertwined with trucking⁸⁹. Therefore, the masculine image of a truck driver is deeply entrenched and far-reaching, which helps to explain the perceived reluctance within society to the introduction of driverless trucks, as referred to at the outset of this section. However, this depiction of truckers also represents a form of nostalgia that is out of sync with reality⁹⁰ and, as detailed herein, it is likely to change dramatically come the onslaught of automation. What, then, is the role of the law in the industry as it faces the challenges mentioned above?

The role of the Law

Individual autonomy and dignity⁹¹, human well-being and development⁹² as well as (inter alia) integrity⁹³ all have legal underpinning as aspects of how individuals perceive one another. The masculine image of truckers has enabled the perception that these individuals regularly demonstrate determination and bravery in the face of difficulty and danger⁹⁴. However, this assessment will change with the advent of autonomous trucks as the role of the trucker becomes that of a mere supervisor, who may relax at various points along the journey⁹⁵. This is far removed from the image that has been projected across several media to date, as the above analysis reiterates⁹⁶. This, then, raises an interesting question about the role of the law in protecting what to many would be considered an outmoded image.

⁸⁶ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 423

⁸⁷ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 417

⁸⁸ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 429

⁸⁹ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 423

⁹⁰ Rushe D, "End of the road: will automation put an end to the American trucker?" *The Guardian*, 10 October 2017, available at <https://www.theguardian.com/technology/2017/oct/10/american-trucker-automation-jobs>, last accessed 3 November 2017

⁹¹ *Campbell v Mirror Group Newspapers Ltd* [2004] UKHL 22, [2004] 2 AC 457 [51] (Lord Hoffmann).

⁹² *ibid* [12] (Lord Nicholls).

⁹³ *Mosley v News Group Newspapers Ltd* [2008] EWHC 1777 (QB), [2008] EMLR 20 [214].

⁹⁴ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 423

⁹⁵ <http://www.ontimeblog.com/the-breakthrough-in-self-driving-technology/>, last accessed 12 June 2017

⁹⁶ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432

The role of the law in the context of image is perhaps an uneasy one because individuals do not have a right in English law to prevent use of their image. However, whilst there is no law of “image rights” per se within the law and, hence, claimants have no specific right to object to third party use of their personal identities⁹⁷, successful claims have been brought in false endorsement and false merchandising⁹⁸. These actions have given protection to individuals in respect of the publishing of visual representations without permission, the basis of the claim being that there has been a misrepresentation likely to deceive members of the public into believing that the use of an image has been approved of and authorised by the claimant⁹⁹.

Whilst both false endorsement and false merchandising can damage ones image, claims have only been successful when accompanied by the mistaken belief by consumers that goods containing the complained of image had been authorised. In any case of passing off, a claimant has to establish that the use of the image without authorisation amounted to a misrepresentation which was calculated to cause deception¹⁰⁰. These causes of action therefore apply solely to proprietary matters. On this basis, it is difficult to see how false endorsement and false merchandising would be applicable to individual truckers. Due to the absence of proprietary concerns, this limb of the law will not be applicable.

There is an alternative, however. The tort of defamation has been the most prevalent legal route in protecting discrete reputational rights. Defamation law enables an individual to prevent the publication of, or recover damages for, public statements which make or are likely to make, people think less of them. Defamation also represents an accessible remedy. As Horsey and Rackley observe, “we all have an interest in our reputation being maintained... The principles of defamation are applicable to everyone”¹⁰¹. Accordingly, it is apposite to evaluate the degree to which this route might be applicable.

At law, it is accepted that reputation is unquestionably of immense value, personally and commercially¹⁰². Defamation is the limb of the domestic law that historically protects reputation. The elements of defamation are : (1) a defamatory statement; (2) that refers to the claimant; (3) that is published and (4) that causes damage to the claimant, all areas of which must be proved by the claimant. In relation to English law, defamation takes two forms, libel and slander. Libel involves (amongst other

⁹⁷ Ng, C (2016) “The law of passing off - goodwill beyond goods” *International Review of Intellectual Property and Competition Law*, IIC 2016, 47(7), 817-842, 817

⁹⁸ *Irvine v Talksport Ltd* [2002] EWHC 367 (Ch); *Fenty v Arcadia Group Brands Ltd (t/a Topshop)*[2015] EWCA Civ 3

⁹⁹ *Fenty v Arcadia Group Brands Ltd (t/a Topshop)*[2015] EWCA Civ 3

¹⁰⁰ *Fenty v Arcadia Group Brands Ltd (t/a Topshop)*[2015] EWCA Civ 3, 13.

¹⁰¹ Horsey K and Rackley E, *Tort Law*, OUP, 2017, at page 471

¹⁰² <https://login.westlaw.co.uk/maf/wluk/app/document?src=doc&linktype=ref&context=49&crumb-action=replace&docguid=IE4A88380C6271IE3986CBEF718BA313D>, last accessed 1 November 2017.

things) writing or printing a defamatory statement. Slander is speech or gestures of a defamatory nature. Per *Terry (previously 'LNS') v Persons Unknown* [2010] EWHC 119 (QB), [2010] EMLR 16 [75], “[a] libel or slander is commonly defined as the publication in permanent or spoken form (as the case may be) of words referring to the claimant that would tend to lower the claimant in the estimation of right thinking people generally”¹⁰³.

Reputation is so well entrenched in the law of England and Wales that it is considered to be encompassed within the right to respect for private life conferred by Article 8 of the European Convention on Human Rights¹⁰⁴. It has now been definitively stated that Article 8 “protects ‘reputation’, broadly understood”¹⁰⁵. Since, in the tort of defamation, an individual’s reputation is said to be pitted against freedom of expression, domestic courts must evaluate how Article 8 is to be assessed against Article 10 rights (conferring an explicit right to freedom of expression to which the courts of this country must pay appropriate respect¹⁰⁶). One of the fundamental questions that the tort of defamation has to resolve is where to strike the balance between the right to freedom of expression and an individual’s desire to protect their reputation. In other words, at its heart lies the question as to when an individual’s interest in what people think of them should trump or silence the freedom of others to be able to say what they know about them¹⁰⁷.

The issue of whether a statement is defamatory is determined objectively. Typically the Courts will be concerned with the “natural and ordinary meaning” of the words - what the “ordinary reader” understands them to bear¹⁰⁸. The Court will also consider the general features of the article and the impact these are likely to have on the mind of the ordinary reader in determining whether the meaning of the publication is defamatory¹⁰⁹. However, a comprehensive definition of a defamatory statement has eluded courts and commentators¹¹⁰.

¹⁰³ See, further, Warby M, Moreham N and Christie I (eds) and Hon Tugendhat M (Consultant Editor), *The Law of Privacy and The Media* (2nd edition, Oxford University Press, 2011) Chapter Seven.

¹⁰⁴ See, inter alia, *Radio France v France* (53984/00) (2005) 40 E.H.R.R. 29; *Lindon v France* (21279/02) (2008) 46 E.H.R.R. 35).

¹⁰⁵ *McKennitt v Ash* [2006] EWCA Civ 1714, [2008] QB 73 [80] (Buxton LJ)

¹⁰⁶ *Douglas v Hello! Ltd (No.1)* [2001] QB 967 (CA), 982. Extrajudicially, Lord Neuberger of Abbotsbury has argued that the right to freedom of expression, though of central importance, is “[not] a right which must reign unfettered and unrestricted” : Lord Neuberger of Abbotsbury, ‘Privacy and freedom of expression - a delicate balance’ (Eton, 28 April 2010), available at <http://www.judiciary.gov.uk/media/speeches/2010/speech-lord-neuberger-29052010>, last accessed 1 November 2017.

¹⁰⁷ Horsey K and Rackley E, *Tort Law*, OUP, 2017, at page 471

¹⁰⁸ <https://login.westlaw.co.uk/maf/wluk/app/document?src=doc&linktype=ref&context=49&crumb-action=replace&docguid=IE4A88380C62711E3986CBEF718BA313D>, last accessed 1 November 2017.

¹⁰⁹ *Yeo v Times Newspapers Ltd* [2014] EWHC 2853 (QB); [2015] 1 W.L.R. 971 para. 97

¹¹⁰ Peel W and Goudkamp J (eds), *Winfield and Jolowicz Tort*, Sweet and Maxwell, 2014, at page 360

Until recently, the tort of defamation essentially allowed an individual to sue another who said *anything* that might make a third party think less of the claimant and there has been criticism that, in the past, companies and individuals have used the threat of defamation claims to suppress / prevent bad publicity¹¹¹. However, the domestic law on defamation has recently undergone a significant period of change. This complex area of law¹¹² is regulated by the Defamation Act 2013, which was touted as turning “English libel laws from an international laughing stock to an international blueprint¹¹³. The Act introduced wide-ranging reforms. In particular, Section 1 introduced a “serious harm” requirement which has the effect that “[A] statement is not defamatory unless its publication has caused or is likely to cause serious harm to the reputation of the claimant”.¹¹⁴ Accordingly, relief will only be granted in respect of sufficiently serious publications, as opposed to publications that were barely defamatory, or little more than abusive or were likely to be understood as jokes, such allegations being nothing more than trivial “saloon-bar moanings”¹¹⁵.

With this in mind, the applicability of the tort in relation to protecting the historic, male-dominated image of truckers is dubious. This is because, whilst a statement that disparages a person in his reputation in relation to his office, profession, trade or business may well be defamatory¹¹⁶, it is debateable whether a changed perception of the image of a trucker would tend to reflect on an individual claimant’s character or lower that person in the eyes of persons “generally”, as is required in the tort. On the contrary, the change may well be a positive one that finally brings to the fore (and stamps out) the archaic gender mismatch prevailing in the industry. A valuable argument here is that information that produces reputation should be a fully rounded picture. The reputation that truckers are resoundingly male is anything but a rounded picture and it is dubious whether the reputation of truckers as garnered to date is actually deserved or is it purely nostalgic. It is not the object of the tort of defamation to allow reputation to be regarded as being malleable to the point of infinity, or to be extended, amended, or deleted by future technological enhancements.

By extension, a further obstacle to the successful utilisation of the tort is that, whilst a statement that disparages a person in his reputation in relation to his office, profession, trade or business may well be defamatory¹¹⁷, it must be possible for the *specific* claimant to be identifiable. The question of

¹¹¹ Horsey K and Rackley E, *Tort Law*, OUP, 2017, at page 472

¹¹² Collins M, “Reflections on the Defamation Act 2013, one year after Royal Assent” Inform blog, 25 April 2014, available at <https://inforrm.org/2014/04/25/reflections-on-the-defamation-act-2013-one-year-after-royal-assent-matthew-collins/>, last accessed 3 November 2017

¹¹³ Winton P, “Laughing stock” libel laws to be reformed, says Nick Clegg’ *The Guardian*, 6 January 2011

¹¹⁴ Defamation Act 2013, Section 1. For the meaning of “serious harm” under Section 1, see, inter alia, *Cooke v MGN Ltd* [2014] EWHC 2831 (QB); [2015] 1 W.L.R. 895 and *Lachaux v Independent Print Ltd* [2015] EWHC 620 (QB)

¹¹⁵ *Sheffield Wednesday v Hargreaves* [2007] EWHC 2375 (QB) [17]

¹¹⁶ W Peel and J Goudkamp (eds), *Winfield and Jolowicz Tort*, Sweet and Maxwell, 2014, at page 362

¹¹⁷ W Peel and J Goudkamp (eds), *Winfield and Jolowicz Tort*, Sweet and Maxwell, 2014, at page 362

whether an individual can sue in respect of words that are directed against a group, body or class of persons generally was considered in *Knuppfer v London Express Newspapers Ltd*.¹¹⁸ The crucial finding here was that the published words must be “of the claimant” in the sense that he can be said to be personally pointed at : it must impact him identifiably. Hence, normally, where the defamatory statement is directed at a class of persons, no individual belonging to the class is entitled to say that the words were published of him. Accordingly, a statement that does not reflect on the claimant’s reputation at least in a broad sense is not defamatory¹¹⁹.

Additionally, there are problems meeting the Section 1 hurdle. As detailed above, Section 1 is aimed at preventing trivial claims from being commenced. It is arguably unlikely that threats to the historical machismo image of truckers would be considered as little more than trivial¹²⁰ and hence this hurdle would not be met. Furthermore, the tort of defamation is of little avail if the offending publication can be proven to be true. It has long been the case that establishing the truth of a defamatory statement could defend a claim in defamation¹²¹ because “the law will not permit a man to recover damages in respect of an injury to a character which he does not or ought not possess”¹²². Section 2 of the Defamation Act 2013 puts this on a statutory footing : “It is a defence to an action for defamation for the defendant to show that the imputation conveyed by the statement complained of is substantially true”¹²³. Since it is debateable that truckers “deserve” their machismo reputation, arguably this is the new truth that they and the rest of the industry must face.

On a more general level, the law may not be attractive as a means of redress because truckers, in addition to their masculinist image, have another reputation and that is that they appear to consider themselves above the law. There is evidence to suggest that law enforcement is to be avoided at all costs and that success can be garnered either by male truckers steering clear of them¹²⁴ or, conversely, by confronting law enforcement, which “symbolically hoists truckers up on a pedestal of compensatory manhood”¹²⁵. Therefore, the law will not be the panacea in which the image of a trucker as the embodiment of manhood and masculinity is reinforced through. A similarity can be drawn here with driverless train technology. When faced with the perceived adoption of driverless train technology, potentially supplanted drivers did not resort to legal means to voice their concern,

¹¹⁸ *Knuppfer v London Express Newspapers Ltd* [1944] A.C. 116

¹¹⁹ An additional matter is who would be the party actually *being* sued?

¹²⁰ Although a different argument could be made if the changed perception meant that the industry became less attractive as an occupation than before

¹²¹ Horsey K and Rackley E, *Tort Law*, OUP, 2017, at page 489

¹²² *McPherson v Daniels* [1829] at 272

¹²³ Defamation Act 2013, s 2 (1)

¹²⁴ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 426

¹²⁵ Eastman J, Danaher W and Schrock D (2013) Gendering Truck Driving Songs: The Cultural Masculinization of an Occupation, *Sociological Spectrum*, 33:5, 416-432, at 426

but, instead, they took industrial action and, to date, no existing rail systems have been converted to driverless operation. The purpose-built, low-speed Docklands Light Railway in east London remains so far the exception to the UK's driver-controlled rule¹²⁶. Therefore, the law as a means of image fortification in the context of autonomous transportation is by no means made out.

Overall, the law may not be the panacea here. As shown above, there are question marks regarding the very legitimacy of bringing a claim in defamation and, additionally, the reputation of truckers as operating outside the law works against them using the law.

CONCLUSION

The implications of the law in relation to autonomous vehicles of all kinds are immense. This article has identified perceived benefits associated with automation in the trucking industry and highlighted whether the potential change in the working environment of truckers will ultimately bring with it a revised identity which, though arguably welcome, is out of keeping with historical and cultural perceptions. In so doing, it has queried the role of the law in preserving the deep-rooted image of the male trucker.

By way of conclusion, given the many question marks as to the legitimacy of bringing a claim in defamation and the fact that truckers appear to consider themselves above the law, it is unlikely that the law will be the champion of the trucker in relation to this issue. Nor should it be. Whilst it is accepted that how people are perceived is very important, denting the prevailing image of truckers arguably represents a positive step in the development of autonomous trucks because trucking as an occupation would then become increasingly open to women, as well as men, thereby reducing the gender bias prevalent within the industry. This does not mean the issue is not a very real one. The issue of autonomously driven trucks is an issue, in part because of the way this also 'attacks' the masculinist truck driving culture so there is an interesting socio-legal and cultural aspect to the technology as this article has sought to articulate. Whilst the prospect of a fully autonomous truck is still a long way off, and, for the foreseeable future, a driver will remain in a cab, particularly given societal perceptions and concerns, it is arguable that deployment of the technology will be delayed until a range of issues are resolved. This article has, therefore, raised a debate about the role and nature of law and its role in maintaining a certain societal configuration, however dated or nostalgic that might be. Unlike many articles that have been written to date which have focused on the role of the law in facilitating the introduction of automated vehicles, this article has instead emphasised other aspects where a legal response would be deficient and this inability to respond brings with it social

¹²⁶ Wright R, 'UK rail network still a long way from fully automated trains', FT, January 11, 2017

implications. Although the role of the law is to be sensitive to change, arguably now is the time to cast out outmoded societal concepts and perceptions and embrace the new. Law may not always be the answer to this problem. The change lies instead in society.