Victims of Progress: The Tort Liability and Economic Ramifications of Autonomous Vehicles

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In November 1989, Back to the Future II revealed to viewers a series of improbable predictions and unrealistic expectations in the forthcoming decades: hoverboards, self-lacing Nike shoes, and the 2015 World Series pennant for the Chicago Cubs. Though seen as a futuristic movie based around the concept of time travel, the fact that these technological advances have come into fruition at approximately the same time as predicted in the film demonstrates technology’s ability to materialize society’s wildest imaginations. Yet even still, "Doc" and Marty McFly could never have envisioned that the DeLorean would have the technological capability to drive itself by the year 2018. As is often the case with novel inventions, our initial excitement surrounding the technological marvel forces the undesirable affects associated with the development to the background. The bitter and seemingly ignored truth is that autonomous vehicles create unresolved questions of tort liability and economic susceptibility.

Anyone with experience behind the wheel should be unsurprised when hearing that human error remains the primary cause of ninety-five percent of American motor vehicle accidents. Technological advancements have been both a blessing and a curse to the practice of driving; the celebrated benefits of cellular connectivity suddenly appear bleaker when one realizes that distracted driving, primarily through cell phone usage, took the lives of 3,477 Americans in 2015 and injured an additional 391,000. Proponents of autonomous vehicles argue that the technology has the potential to combat this issue and many others, preventing thousands of fatalities and millions of injuries, and saving the American economy over $200 billion annually in medical, property, and productivity losses. Unfortunately, when it comes to technology and accidents the wheat and the chaff are never truly separable. The inevitability of technological malfunction requires a consideration of the tort liability of self-driving cars when accidents occur.

Negligence has persisted as the primary theory of recovery for plaintiffs bringing a cause of action against a particular defendant for carelessly operating their vehicle. To succeed on this theory of liability plaintiffs must satisfy the elements of recovery: duty, breach, injury, and causation. The removal of the negligent driver generates difficulty for plaintiffs in the forthcoming decades, as there is no longer an individual to point blame at. Furthermore, placing liability upon the owner of the vehicle is undesirable from a policy standpoint “unless owners of autonomous cars agree upon the purchase . . . to assume the risk of all harm, regardless of what, or who, caused it.” The removal of the negligent driver—the championed benefit of self-driving vehicles—means that when an autonomous vehicle does
crash the cause will likely be the collision avoidance system or conditions the technology was not
programmed to encounter, shifting the focus to the manufacturer.\[11\]

Manufacturers can expect strict liability to play a pivotal role in litigation involving autonomous vehicles. Strict products liability arose as an important cause of action as products began to progress in their complexity of design and danger. \[12\] “In contrast to simple products of previous generations, modern consumers often have no practical way to evaluate the safety of such products in order to avoid dangerous defects.”\[13\] This same rationale is directly applicable to autonomous vehicles all the same. Consumers are largely uneducated on self-driving technology making reliance on strict products liability a more appropriate theory of recovery.

In the autonomous vehicle context, strict products liability would subject manufacturers to liability for physical harm to plaintiffs proximately caused by a defect in the product.\[14\] The typical design defect argument made by a plaintiff injured by an autonomous vehicle would be that the vehicle’s algorithms and autonomous capability should perform safely in most, if not all, driving contexts and not prone to accident involvement.\[15\] The Risk-Utility design defectiveness test applied by courts in the strict products liability context is whether “a seller could have reduced the foreseeable risk that harmed the plaintiff by adopting a reasonable alternative design, the omission of which rendered the product not reasonably safe.”\[16\] As a result, if a plaintiff fails to prove that a reasonable alternative design could have eliminated the risk and would have been practical in the product’s design and cost, the product will not be considered defective.\[17\] For a plaintiff to make this showing they will undoubtedly need expert testimony to simplify the operation of autonomous vehicles to the laypeople sitting in the jury box, creating massive litigation costs and immense amounts of time through accident reconstruction and extensive discovery.

The novelty of self-driving capability presents unresolved issues of tort liability that will arise as the technology progresses and courts are forced to decide the issue. There are many theories among legal academics suggesting different routes on the road to recovery for plaintiffs injured in accidents involving autonomous vehicles. As is not often the case, the legal field has the benefit of seeing this technology coming down the road from afar and will accordingly be able to devise the proper standard to merge autonomous capability within the tort liability spectrum.

Aside from the tort liability issues entangled with autonomous vehicles, the new technology also presents economic implications that have been largely overshadowed by the marvel of the capability. Nearly three percent of the country’s total workforce is comprised of individuals who drive for their profession.\[18\] In 2014, 3.1 million truck drivers accounted for the lion's share of the 4 million total jobs in the field at the time.\[19\] To pour salt in the wound, those employed in the field are predominantly men without secondary degrees, the same demographic most negatively affected by the loss of 5 million manufacturing jobs since 2000.\[20\] Autonomous vehicles pose the biggest threat to these hardworking and often overlooked Americans; companies would rationally love to replace drivers with autonomous vehicles, eviscerating labor costs and maximizing profit margins.

Furthermore, many peripherally related jobs would also fall by the wayside with the development of self-driving technology. The increase in vehicle safety and the inversely related number of accidents will undoubtedly negatively affect the automotive service and repair industry, which employs 267,050 Americans.\[21\] Rental car agencies, parking meter and lot attendants, car washes, and dealerships would likely see a reduction in their numbers as well, as “many households may decide they don’t need to own a car; they can simply e-hail driverless cars.”\[22\] When the smoke clears, “the implementation of autonomous vehicles will result in a loss of 300,000 jobs per year . . . [diminishing] the transportation industry’s current workforce from 10 million to 6 million.”\[23\]

This piece is not meant to serve as a means of combatting progressivity within the technological world or arguing to cease technological development that has the potential to save thousands of lives. Nor is its aim to argue that the US economy should kowtow to one specific demographic within the workforce, regardless of how large that demographic is. Rather, it is written to simply highlight issues not typically discussed when focusing on the emerging technological advancement and to remind those blinded by fascination that the commercial implementation of autonomous vehicles will have a detrimental affect on Americans working within the impacted industry, many of which lack the transferrable skills or training to remain competitive in our country’s changing economy. Furthermore, the tort liability
questions remained unanswered as a result of the quickly emerging technology and the slow development of the legal field. One thing remains constant, America has proven capable of relentless adaptation throughout the country’s nearly 250 years of existence and will do so with respect to the issues presented by autonomous vehicles as well.


[6] Geistfeld, supra note 4, at 1614; Zipp, supra note 4, at 147.


[10] Id. at 104 (citing ROBERT E. KEETON ET AL., PROSSER AND KEETON ON TORTS 480 (5th ed. 1984).


[13] Id.


[16] Owen & Davis, supra note 12, at 249 n.1 (paraphrasing RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(b) (Am. Law Inst. 1998)).

[17] Zipp, supra note 4, at 154.


Lee, supra note 21; Greenhouse, supra note 4.


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