Professional Perspective

Manufacturer Liability & Autonomous Vehicles

Eric Kennedy & Danielle Mayer, Buchalter

Bloomberg Law

Manufacturer Liability & Autonomous Vehicles

Contributed by Eric Kennedy & Danielle Mayer, Buchalter

Autonomous vehicles are here to stay, now that every major auto manufacturer offers vehicles with varying levels of autonomy. Increasing safety is the key concern. Each year, approximately 2.4 million people are injured in auto accidents, and as many as 40,000 are killed.

In most cases, driver error is the cause–distracted driving, speeding, driving under the influence, etc. It is hard to imagine a world without these challenges on the road, but it might not be too far away. Some estimate that autonomous vehicles will reduce the accident rate as much as 80-90%.

As the advancement and implementation of autonomous driving technology increases, so too do the obstacles. Among these are consumer skepticism, an outdated and inconsistent regulatory system, and an increasingly incompatible liability framework. As autonomous vehicles become more prevalent, questions regarding the allocation of liability within the traditional tort regime will continue to arise.

Liability Framework Needs Revamping

To support advancement and to account for novelty, the existing liability framework requires modification, if not a complete revamp. The ideal framework would achieve legal compliance and effectively mitigate accidents and lower costs. Meanwhile, the law lags behind, hindering manufacturers' ability to properly implement life-changing, indeed life-saving, technology.

While regulatory schemes are mired in politics, it may be that the courts will provide a forum for accelerating the adaptation of the law to this new reality. It starts with auto accident cases, which have become the arena for determining the difficult issues of fault arising when technology takes the wheel. The increased implementation of autonomous vehicles will likely sound the demise of traditional negligence-based tort doctrine, moving inevitably to strict manufacturer liability as the industry moves toward greater autonomy.

There are several reasons favoring assigning strict liability to manufacturers of autonomous vehicles. The potential for strict liability incentives the manufacturer to produce the safest possible product, fostering innovation. Safer products will lead to faster adaptation and faster adaptation leads to greater public safety. The more cars on the road that are not operated by humans, the less accidents, decreasing the significant associated social costs. Increased public safety facilitates comprehensive implementation.

Also, strict liability can reduce costs related to litigation. Since it is unnecessary to investigate manufacturer negligence, the likelihood of a formal claim being brought goes down. If litigation arises, costs associated with expert inquiry are significantly reduced, if not eliminated. Rather, the liability system will allocate payments based on the data from the accident. Also, and maybe most critically, under a strict liability regime, it is easier to predict the outcome and predictable outcomes lead to early resolution. More cases will settle before significant litigation costs are incurred, maybe even before a case is filed, freeing up increasingly scarce judicial resources and reducing the strain on the litigants.

Acknowledging that imposing a strict liability standard is not a perfect system when we have human operators on the road in various levels, it makes more sense than applying a liability standard in a situation where there is no human driver, or at least no human control at the time of the accident. It is therefore necessary to consider the various levels of autonomy, recognizing that automation increases, so too does the need for strict liability.

In an effort to describe the various levels of autonomy, the Society of Automotive Engineers (SAE) developed the following industry-standard: Level 0 - no automation; Level 1 - driver assistance; Level 2 - partial automation; Level 3 - conditional automation; Level 4 - high automation; Level 5 - full automation.

Level 0 (No Automation)

Most vehicles on the road today are Level 0, or manually controlled. While there may be systems in place to assist the driver, they do not replace the driver on any level. The emergency braking system, for example, does not qualify as an autonomous function.

Level 1 (Automated Assistance)

The system can perform at least one of the primary driving tasks like steering, accelerating, or braking. Adaptive cruise control, which maintains a safe following distance between the vehicle and traffic ahead without any intervention by the driver is an example.

Level 2 (Partial Automation)

The system can perform several of the driving tasks, such as parking or navigating stop-and-go traffic. A human is in the driver's seat at all times, must remain alert, and is required to actively supervise the technology at all times.

Level 3 (Conditional Autonomy)

Moving to Level 3 represents a significant technological adjustment. Level 3 vehicles have the ability to make informed decisions for themselves, such as accelerating, braking, and even changing lanes based on traffic conditions. Again, however, the driver must be ready to take control at any time.

Level 4 (High Automation)

Because Level 4 vehicles can intervene if something goes wrong, in a sense, they do not require human interaction in most circumstances. While Level 4 vehicles can operate in self-driving mode, until legislation and infrastructure catches up, their autonomous range (and corresponding usefulness) is limited.

Level 5 (Full Automation)

A Level 5 vehicle requires no driver. In consequence, Level 5 prototypes often eliminate steering wheels and pedals. While Level 5 vehicles are being tested all over the world, there are currently no commercially available Level 5 vehicles.

At Levels 4 and 5, assigning liability to the manufacturer is an easier call. But what about Level 3, which have the ability to make informed decisions for themselves?

This, and numerous other questions, will need to be answered as the strict liability framework is implemented in accidents involving HAVs, but it is worth the effort. Beyond addressing the primary concern of increased safety, the implementation of a strict liability regime will reduce litigation costs, foster greater predictability and uniformity, and lead to better innovation, faster adoption, and more universal implementation.