Liability of Tesla's Autopilot System Under California Tort Law

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I. Introduction

Imagine riding across the country in the comfort of your own car and from it, admiring the country's most beautiful cityscapes, beaches, natural forests, and mountain ranges without even having to get behind the wheel. Imagine not having to spend countless, frustrating hours trying to brake in response to the dozens of cars weaving in and out of the lanes around you, and instead, being able to catch up with friends and family over drinks, meals, and movies while your car drives itself. None of this is too good to be true. Many car manufacturers like Ford and Toyota are racing to develop the first fully autonomous vehicle by 2020. [1]

In fact, Tesla Motors, one of the most ambitious of these developers, already has semi-autonomous vehicles on the market. [2] Using a combination of cameras, radars, and ultrasonic sensors, Tesla Motors' Model S ("Model S")'s Autopilot Feature ("Autopilot") allows it to drive, park, and change lanes with minimal human support. [3] For example, Autopilot automatically steers Model S down the highway, keeps it in its current lane, and engages in Traffic-Aware cruise control to maintain the car's speed. [4] If you want to change lanes, all you need to do is signal with the Autosteer function turned on, and the car would automatically change lanes when it is safe to do so. [5] Model S also has a self-park function that enables it to detect nearby parking spots and park itself by controlling steering and vehicle speed. [6]

In addition to its suggestive name, Autopilot, all of these features sound like the Model S is already fully autonomous. For example, Autopilot's Summon Function allows the driver to

exit the car, sit back, and relax at home while it does the rest: the car will open your garage door, enter your garage, park itself, and shut down. [7] In the morning, you can also "summon" your car to meet you at the front door while you get ready for your morning commute. [8] Soon, the Summon Function will allow Model S to drive anywhere across the country to meet you, all while synchronizing with your schedule and charging itself along the way! [9]

However, as these cars become increasingly autonomous, how will manufacturers like Tesla ensure the safety of their products? Currently, most of Tesla's safety features still require human intervention. [10] For example, Tesla claims that its Autopilot system is still in the "public beta phase" and often warns the "driver" to keep their hands on the steering wheel and maintain full control and responsibility for the vehicle. [11] Furthermore, Model S's collision avoidance system alerts the driver when it senses objects and cars that are too close it. [12] To find ways to improve its safety even further, Tesla constantly records the data of how Autopilot reacts to different traffic conditions by pulling data from vehicles with their internet connection activated. [13]

Despite Tesla's efforts, in May of 2016, a driver died when his Model S crashed into a tractor trailer on a Florida highway while using Autopilot. [14] Neither the driver nor Autopilot could distinguish a white trailer from the bright sky. [15] It is still unknown whether the driver was paying attention to the road, notwithstanding Autopilot's warning to do so at all times. [16] Police officers have also found a portable DVD player in the car with a Harry Potter movie playing at the time of the accident. [17]

Concerned about safety and liability issues, several automakers working on systems similar to Autopilot, like General Motors with "Super Cruise," have only tested their features

privately. [18] Similarly, Volvo has withheld releasing their semi-autonomous vehicles and stated that when it finally does release them, Volvo will be prepared to assume the safety risks involved in using their products. [19]Thus, it appears that these automakers do not feel like their products are safe enough to be on the market just yet, especially after news broke of the fatal crash involving a Tesla Model S. [20] Conversely, Tesla claims that Autopilot benefits society, citing statistics which support the finding that the fatality risks of its Autopilot function (1 fatality for every 130 million miles driven) are still lower than the fatality risks of vehicles operated by human U.S. drivers (1 fatality for every 94 million miles driven). [21]

On September 19, 2016, the U.S. Department of Transportation ("DOT") published federal policy guidelines on automated vehicles in which it expressed its support for the development of autonomous vehicles and stated the potential of autonomous vehicles to drastically improve people's safety and mobility. [22] In order to address safety concerns, the Department released guidelines instructing states to close the gap between regulations that govern human-driven vehicles from self-driving ones by allocating tort liability among Highly Automated Vehicle ("HAV") owners, operators, passengers, manufacturers and others when a crash occurs, while providing very little guidance in doing so. [23] This approach encourages innovation while allowing states to experiment with different ways to regulate autonomous vehicles.

California is one of the first states to enact legislation regulating the testing of autonomous vehicles and would be among the first states to use strict products liability to address safety concerns associated with autonomous vehicles. [24] Whereas negligence is the appropriate cause of action when drivers violate traffic signs, are insufficiently attentive, speed,

or drink and drive, strict products liability is properly imposed when accidents result from vehicle malfunctions, such as brake failures. [25]

With respect to the fatal Tesla crash, should the plaintiff, Joshua Brown allege that the accident resulted from Autopilot's failure to detect a white truck (a vehicle malfunction like brake failure), California would likely evaluate the case under a theory of strict products liability. This paper will analyze the issues a California court would likely consider in decidingthe Joshua Brown case on a theory of strict products liability, and more specifically, for a design defect.

II. Analysis

A. Facts of the Case

Suppose that Joshua Brown's Tesla Model S crashed in California instead of Florida under the same circumstances. A human driver operates his Model S down a highway with Autopilot running. The car suddenly fails to detect a white truck against a bright sky while turning the car into a divided highway, does not decelerate or stop, and collides with the truck, killing the driver. [26]

Whenever Autopilot is engaged, the car frequently reminds the driver to "Always keep your hands on the wheel. Be prepared to take over at any time." [27] It also provides visual and audible alerts if the driver's hands are not on the wheel, prompting the car to eventually slow down until the car detects the driver's hands on the wheel again if the driver continues disregarding the warnings. [28] It is not known whether or not the driver had his hands on the wheel or his eyes on the road, as he was warned by the Autopilot to do so.

However, a portable DVD player was noted to have been playing at the time of the incident, and a witness can testify that he could hear the DVD player running 15 minutes after the accident took place. [29] State highway patrol officers also testified that the DVD player was playing a Harry Potter movie. [30]

B. Products Liability

Plaintiff, representatives for the decedent driver, might argue that Tesla, the manufacturer, should be liable in this case for the driver's death because the product was flawed in some way, which caused the accident. Under California law, strict products liability claims are based on theories of manufacturing defects, design defects, and/or a failure to warn. [31] However, in the case of a driver who is injured while sitting behind the wheel of a semiautonomous vehicle, only a cause of action under design defect is feasible.

There is no evidence of a manufacturing defect in the Brown case because, in California, a manufacturing defect exists only if the product differed from the manufacturer's intended results, and the evidence showed that the Model S at issue did not differ from other Model S vehicles made by Tesla. [32] There is no evidence to suggest that Joshua Brown's Model S was different from other identical products from the same manufacturer when it left the Defendant manufacturer's hands. Furthermore, a manufacturing defect claim presumes that there is a suitable design in place, but that the product deviated from that design when it was being made. [33] This was not the case, because the Tesla designers intended for the Autopilot's sensors to distinguish a white truck from a bright sky, and certainly did not intend for it to fail to do so.

1. Design Defect

By contrast, the case is more properly evaluated under a theory for design defect, a fact which perhaps Tesla itself recognized, having updated their software in every Model S after the fatal accident. [34] After the accident, Autopilot's general design needed to be changed, which provides further evidence that the case should proceed under a design rather than a manufacturing defect theory. [35] Juries in California are instructed to find that a product's design is defective if: (1) The product has failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner; or (2) The defendant fails to prove, in light of the relevant factors discussed in the opinion, that the benefits of the design outweigh its inherent risk of danger; and (3) Plaintiff provides that the defect proximately caused his/her injuries. [36]

Claims for design defect must examine the product as a whole, rather than on the basis of one malfunctioning component. [37] For example, in one case, the plaintiffs claimed that a defectively designed door latch in an automobile caused enhanced injury and death in an automobile accident. [38] However, it was appropriate for the jury in that case to consider the automobile's overall design, including its other safety features such as the car's seat belt, its shoulder harness system, and its door lock, which could render the vehicle non-defective *as a whole*. [39]

a. The product has failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner.

To establish that a product was defective in design under the consumer's expectation test, Plaintiff must show that the product (1) failed to perform as safely as an ordinary consumer would expect (2) when used in an intended or reasonably

foreseeable manner. [40] Under this standard, Plaintiff may be able to demonstrate the product defect by using circumstantial evidence, even if the accident itself precludes identifying the specific defect at fault. [41]

(1) <u>The product failed to perform as safely as an ordinary consumer would expect.</u>

To prove a design defect under the consumer expectation test, Plaintiff must first produce evidence to show that the product's design was defective because it failed to perform as safely as a reasonable, ordinary consumer would expect under the circumstances surrounding the product's failure. [42] Because the standard is that of an ordinary *consumer*, expert witness testimony is neither appropriate nor permissible for evaluating the merits of a design. [43]

The consumer expectations test is used when the product's design violates minimum safety assumptions based on the everyday, common experience of the product's users based on the context surrounding the product's failure. [44] For example, the court in *Bresnahan v. Chrysler Corp* applied the consumer's expectation test to a car's airbags even though few consumers have experienced the deployment of an airbag, because consumers can reasonably expect airbags to deploy safely in the context of a minor rear-end collision. [45]

Expert witnesses may not be used to evaluate the design's merits. [46] For example, in *Soule v. Gen. Motors Corp,* the consumer expectations test did not apply to an alleged defect in a car's crashworthiness because expert testimonies were required to resolve complex issues like the collision's exact speed, angle, and point of impact.

[47] Because these issues dealt with the design's technical and mechanical details, it dealt with the design's merits, which must be examined under the risk utility analysis, not the consumer's expectations test. [48]

Similar to the expectation that airbags would not cause injuries in a minor rear-end collision in *Bresnahan,* the Plaintiff in the Tesla case would argue that detecting a giant white truck is part of a consumer's common experience when using the Autopilot function, because it was designed to detect objects and obstructions around the car. [49] However, Autopilot was not designed to be a complete substitute to human intervention, especially because it is still in the beta phase and constantly reminds its users to keep his/her hands on the steering wheel and eyes on the road at all times. [50] As a result, like the consumers' inability to reasonably expect the car to remain intact in all circumstances in *Soule*, consumers here are not able to reasonably expect Autopilot to detect large moving objects in all circumstances. [51] Expert testimony would thus be required to explain possible reasons why the system malfunctioned in this specific circumstance, requiring an evaluation of the design's merits. [52]

Plaintiff is unlikely to prevail under the consumer's expectations test here, because an evaluation of the design's merits, and thus the risk-utility analysis, is likely to be required. However, if Plaintiff somehow manages to show that Autopilot is unsafe under the consumer's expectations test, they would still have to proceed to the next step of the analysis.

(2) <u>Was the product used in an intended or reasonably foreseeable manner?</u>

The consumer's expectation test also requires Plaintiff to show that the product was used in an intended or reasonably foreseeable manner. [53] Whether or not a particular use of a product was intended or reasonably foreseeable is a question of fact, and evidence of the manufacturer's scheme for marketing the product is a relevant consideration in the determination. [54] The manufacturer is expected to design products with foreseeable consumer misuses in mind, and should thus compensate consumers in such situations where this is not properly done. [55]

In this case, there is an issue as to whether or not the product was being used as intended or in a reasonably foreseeable way. First, the name Autopilot suggests that it was intended to be used as a self-driving car as Plaintiff was doing. However, the car did not have a built-in DVD player or other distractions. [56] Instead, it was designed to stop if the driver's hands are off the wheel for long periods of time, which supports Tesla's likely argument that Autopilot is a safety device rather than a fully autonomous vehicle. [57] However, a court is unlikely to adopt this interpretation of Tesla's intent, as Tesla constantly collects data with the specific purpose of making the Autopilot one of the first fully autonomous cars on the market. [58]

Even if the court adopts Tesla's argument that Plaintiff did not use Autopilot as it was intended to be used, citing the fact that Plaintiff played a movie on a DVD player rather than focusing on the road, it was foreseeable that such distractions would be available. Many experts claim that the human brain is simply not designed to pay attention in supervising a car for long periods of time. [59] Therefore, Tesla should have known based on common experiences that, for example, people often die by texting while

driving. [60] Thus, Joshua Brown case was using the car as it was intended or in a reasonably foreseeable way.

b. Proximate Cause

To recover for a design defect, Plaintiff must show that a defect in the product was the proximate cause of his/her injury. [61] To do so, Plaintiff must show that (1) the product malfunctioned and (2) the malfunction was a substantial factor in producing Plaintiff's injury. [62]

First, Plaintiff must prove that the product malfunctioned by showing that it was not functioning as it was intended to. [63] For example, in *Greeman*, the plaintiff claimed that a product that could be used as a saw, drill, and wood lathe malfunctioned because while it was being used as a wood lathe, the wood flew out of the machine and struck him on the forehead because of inadequate screws to keep the product from falling apart. [64]

Furthermore, the alleged defect must be a substantial factor in causing Plaintiff's injuries. [65] For example, if the external force was so severe that it would have caused the same injuries despite the alleged defects, then the alleged defect cannot be considered a substantial factor in causing the injuries. [66] In one case, a truck driver argued that the location of his parking brakes proximately caused his injuries after his parking brakes failed as he collided with a car. [67] However, the location of the parking brakes was not a substantial factor in causing the other driver's injuries because it was already inoperable due to improper maintenance. [68] Thus, the location of the parking brakes would not have made a difference as to whether or not the accident would still have taken place. [69]

In our case, Plaintiff would likely allege that Autopilot malfunctioned because it failed to detect the white truck against the bright sky. This malfunction is likely to be conceded by Tesla, especially given that they had to update the Autopilot software after the accident, despite not knowing the exact cause of the malfunction. [70] Plaintiff must simply present circumstantial evidence that the alleged defect caused the injury to shift the burden of proof to the Defendant. [71] Thus, even if Tesla disputes the existence of a malfunction, it would be Tesla's burden to prove that an alternative explanation for why the Model S failed to detect the white truck before the crash is more likely than not.

Proximate cause is likely to be met in this case because unlike the external force that took place in the accident in *Soule* or the inoperable brakes in *Visueta v. General Motors*, the accident in this case is unlikely to have happened without Autopilot's sensors malfunctioning. [72] Even if Plaintiff contributed to his own injuries by not paying attention to the road, it is difficult to imagine that he would have been able to react and intervene in time once he knew the car was not going to stop before colliding with the truck. [73] Thus, proximate cause would be met, because Plaintiff is only required to show that the defect is a substantial factor, not the sole factor in causing his injuries. [74]

c. Defendant fails to prove, in light of the relevant factors discussed in the opinion, that the benefits of the design outweigh its inherent risk of danger.

In many situations, the consumer would not know what to expect because he or she would have no idea how safe the product could be made, and thus may rely on the alternative risk-benefit test to show the existence of a design defect. [75] Plaintiff's burden of proof under the risk-benefit test is to simply offer evidence that would permit

the jury to determine that the product's design proximately caused his or her injuries. [76] When this is accomplished, the burden of proof shifts to the Defendant to prove that the design's benefits outweigh its risks and therefore was not defective. [77]

1. Plaintiff's Initial Burden of Proof

First, Plaintiff has the burden of proving that the product's design proximately caused his or her injuries while he/she was using the product as it was intended or in a reasonably foreseeable manner. [78] As discussed above, the product is likely to be used as intended or as reasonably foreseen. Plaintiff is also likely to successfully show that the product proximately caused Plaintiff's injuries. As a result, Plaintiff's initial burden of proof under the risk-utility analysis is met.

2. Defendant's Burden of Proof

As discussed above, since the prima facie case is likely to be met, the burden would thus shift to Defendant to show that the product was actually not defective. The second *Barker* test evaluates the design itself if the jury finds that the challenged design's risk of danger outweighs its benefits by considering factors such as:

1. the gravity of the danger posed by the challenged design;
2. the likelihood that such danger would occur;
3. the mechanical feasibility of a safer alternative design;
4. the financial cost of an improved design; and
5. the adverse consequences to the product and to the consumer that would result from such a design. [79]

While the gravity of the danger is clear, the potential for a fatal accident like the one that took place, the likelihood of harm is unlikely to be high due to the manufacturer's precautions in preventing the harm. Warnings, along with the entirety of the product, are relevant in determining whether a product is likely to cause harm under the risk/benefit test. [80] In our case, warnings constantly remind the driver to keep his/her hands on the steering wheel and eyes on the road whenever it detects that the driver is not following directions. [81] Thus, even though the manufacturer foresaw potential dangers arising from drivers' overconfidence in Autopilot's abilities to independently drive their cars, the system's warnings were placed to reduce the likelihood of harm. Furthermore, if the driver continuously disregards the warnings, the car would decelerate, even further reducing the likelihood of harm to the point that it is statistically safer than a traditional automobile (if Tesla's own statistics are correct). [82]

Nonetheless, the likelihood of harm may become relatively high as these statistics would be compared to other semi-autonomous vehicles later on, rather than having human drivers as the baseline. After all, if the standard of danger remains the same, it would disincentivize manufacturers from developing their technology to improve safety concerns.

Evidence that a product was designed in accordance with the current state of the art is admissible to show the feasibility and the cost of an improved design. [83] The "feasibility of alternative design" factor is based on a consideration of physical or mechanical, not administrative or regulatory, feasibility. [84]

The strongest basis for a feasible, safe alternative design is Tesla's Autopilot 8.0 which was released just four months after the Joshua Brown incident and, as Elon Musk claimed, would likely have prevented such an accident. [85] Autopilot 8.0 seeks to address the shortcomings of its predecessors by utilizing the Model S's existing radars more frequently to detect the car's surrounding objects. [86] These radars were not previously used as extensively, because radars are not able to detect people and certain objects like wood and metal. [87]

To address these issues, Autopilot 8.0 does not immediately change how Model S would react to objects, but instead steadily compiles information on whether or not other cars brake in response to objects in a database. [88] Recently, in the Netherlands, an Autopilot-equipped Tesla vehicle was able to use its radars to predict a collision a few cars ahead and brake in response to it. [89] Once the system is confident that the probability of braking appropriately is high, Autopilot would begin adopting the compiled information in reacting to detected objects. [90]

Even if Plaintiff argues that Autopilot 8.0 is a safer, feasible alternative design, there would still be many issues left to address. For example, Elon Musk's comments that Autopilot 8.0 would have likely prevented Joshua Brown's incident are speculative because Autopilot 8.0's radars have not compiled enough data to be fully utilized or evaluated. [91] Furthermore, even if Autopilot 8.0 was available at the time of the incident, courts would still be left to speculate how developed Autopilot 8.0's database would have been at the time of the incident, and whether or not there would be enough data for Model S to brake in response to prevent the accident. [92] Thus, both parties

would likely have to present expert witnesses to determine how developed the database would have been at the time of the incident had it been released sooner, and whether or not it would have been enough to prevent the accident in Joshua Brown's case. If the database is unlikely to have been developed enough to detect the white truck and brake in response, then it would also be unlikely to have been feasible at the time of the incident.

If Tesla fails to meet its burden of showing that Autopilot 8.0 would not have prevented Joshua's fatal accident, there is likely to be a very strong claim of design defect. After all, the financial costs of adopting the changes in Autopilot 8.0 sooner is unlikely to be high since it does not require any additional hardware. [93] Incorporating Autopilot 8.0's features sooner is also unlikely to have many adverse consequences to its consumers or manufacturers, because it is designed to be used only when the system is confident that using it is unlikely to lead to false braking. [94] Absent any other concerns with Autopilot 8.0's features, Tesla is unlikely to meet its burden in showing that Autopilot was not defective at the time of the incident.

If Autopilot 8.0 fails to be a feasible alternative design, there are other plausible alternative designs. For example, other companies like Google are developing an alternative sensor system called Lidar, which stands for "light detection and ranging." [95] This system projects lasers to create a high-resolution map of the car's surroundings while the car analyzes the light's reflections instead of using radars and cameras around the car as Tesla does. [96] Elon Musk has publicly stated that Lidar is "not necessary" and that it "does not make sense" to use Lidar for his cars since his goal is to develop cars with "full autonomy." [97] However, Mr. Musk has not elaborated on why using Lidar

would not be feasible in developing fully autonomous vehicles, when other manufacturers are using Lidar with that exact goal in mind. [98] Although Google has run into trouble with testing cars using Lidar, this does not rule out the possibility of combining Lidar with Tesla's camera technology to improve its overall safety in detecting obstructions. [99]

One major problem with arguing that Lidar is feasible is that Lidar has traditionally been relatively expensive, with costs of about $75,000 apiece, which would make Tesla's Autopilot substantially more expensive, since their Model S cars are already sold for around the same price. [100] However, developers have made cheaper alternatives to Lidar systems at around $250 apiece, so it is no longer reasonable to ignore this technology given this huge decrease in price. [101]

Although Tesla may be able to argue against the feasibility of such technology, this issue would likely come down to a battle of expert witnesses. To support its contentions, Tesla may present evidence of other similar accidents associated with alternative designs to show their lack of feasibility. [102] Tesla may be able to present evidence of Google's accidents with Lidar to help show that Lidar would not have made a difference in the Joshua Brown case. Tesla might also argue that for fully autonomous vehicles to develop, it would not be able to use Lidar in its models to be successful as a cost of using it. [103] However, this is unlikely to succeed since Lidar is the centerpiece of other alternative designs. [104]

Regardless, it would be Tesla's burden to prove the lack of a feasible design, not the Plaintiff's to show that there is a feasible design. [105] If Tesla fails to do so, Plaintiff

would be able to succeed in claiming damages for the harm done to them as a result of the accident under a theory of design defects.

3. Comparative Liability

Even though Plaintiff is likely to successfully show that Tesla's Autopilot program is defective in its design, a jury could still reduce the amount of compensation by Plaintiff's degree of fault. [106] California tort law has extended the principles of comparative liability to strict products liability. [107] Under a comparative liability defense, California's tort laws would reduce Plaintiff's recovery to the extent that his own lack of reasonable care contributed to his injury. [108] For the purposes of apportionment, Plaintiff's conduct is compared not to the Defendant's conduct, but to its product and the allocation of fault is a question of fact for the jury to resolve with all relevant evidence. [109]

For example, in *Daly v. General Motors Corp*, the car manufacturer introduced evidence that decedent ignored the warning in the owner's manual that seat belts should be worn and doors locked when the car was in motion, and that decedent was intoxicated at the time of the collision to establish that decedent's owned conduct contributed to his death. [110] Like that case, it is likely that Joshua Brown disregarded Autopilot's warning to keep his hands on the steering wheel and eyes on the road at all times even with Autopilot on, absent evidence showing otherwise. [111] Furthermore, although Joshua Brown in the present case was not intoxicated, the findings of a portable DVD player that was running at the time of the incident is certainly relevant to show that he was not paying sufficient attention and was a factor in contributing to his own death. [112]

III. Conclusion

A court in California is likely to find that Tesla is liable under a strict products liability claim based on a design defect. Nevertheless, the courts would likely be concerned about how increased litigation could slow or halt innovation and public sales of autonomous vehicles. For example, in the pharmaceutical context, lawsuits increased by 813% between 1980 and 1988 with the average jury verdicts jumping from $400,000 in 1975 to $1.8 million in 1986. [113] This arguably caused drug companies to become hesitant in producing newer or potentially safer vaccines, despite the social utility of preventing diseases and lowering healthcare costs. [114]

However, such litigation costs are unlikely to be sufficiently high in Tesla's context to deter innovation, because lawsuits arising from the use of self-driving cars are expected to be low. After all, as Elon Musk cited, there has only been one fatality out of 130 million miles driven with Autopilot on, compared to one fatality out of every 94 million miles driven for non-Autopilot users. [115] However, there are inherent flaws in these statistics because they are from Tesla themselves and are based off a small sample size. However, if these statistics are to be believed, these accidents do not happen often, which means that lawsuits are even rarer. Furthermore, even if plaintiffs succeed in their lawsuits, autonomous vehicle developers have many inexpensive options to improve the safety of their products such as Autopilot 8.0 and the development of less expensive versions of Lidar. Thus, even if lawsuits are abundant in the earlier stages of the development of autonomous vehicles, this would simply motivate manufacturers to reduce the number of lawsuits by improving the safety of their products, producing net gains for society.

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[49]. *Bresnahan*, 32 Cal.App.4th at 1568-1969; *Full Self-Driving Hardware on All Cars*, *supra* note 2.
[50]. *Soule*, 8 Cal. 4th at 567–568; The Tesla Team, *A Tragic Loss*, *supra* note 21.
[51]. *Soule*, 8 Cal. 4th at 567–568.

[52]. *Id* at 570.
[53]. *Dosier v. Wilcox-Crittendon Co*., 45 Cal. App. 3d 74, 78 (Ct. App. 1975).
[54]. *Id*. at 78–79.
[55]. *Cronin v. J.B.E. Olson Corp*., 8 Cal. 3d 121, 126 (1972); Self v. Gen. Motors Corp. 42 Cal. App. 3d 1, 7 (Ct. App. 1974).
[56]. *Model S*, Tesla Motors, https://www.tesla.com/models (last visited December 22, 2016).
[57]. *Full Self-Driving Hardware on All Cars*, *supra* note 2.
[58]. Tom Simonite, *supra* note 13.
[59]. Alexander Hars, *Supervising Autonomous Cars on Autopilot: A Hazardous Idea*, *Invention Innovation Briefs*, http://www.inventivio.com/innovationbriefs/2013-09/Supervised-Autonomous-Driving-Harmful.2013-09.pdf (last visited December 7, 2016).
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[61]. *Soule*, 8 Cal. 4th at 572.
[62]. *Mitchell v. Gonzales*, 54 Cal. 3d 1041, 1048–1054 (1991).
[63]. *Khan v. Shiley Inc*., 217 Cal. App. 3d 848, 854 n. 9 (1990).
[64]. *Greenman v. Yuba Power Products, Inc*., 59 Cal. 2d 57, 60.
[65]. *Mitchell*, 54 Cal. 3d at 1048–1054.
[66]. *Soule*, 8 Cal. 4th at 572.
[67]. *Visueta v. General Motors Corp*., 234 Cal. App. 3d 1609, 1612 (1991).
[68]. *Id.* at 1617.

[69]. *Id.*
[70]. Tesla Motors, *Software 8.0*, *supra* note 33.
[71]. *Barker*, 20 Cal. 3d at 430.
[72]. *Soule*, 8 Cal. 4th at 572; *Visueta*, 234 Cal. App. 3d at 1612.
[73]. *See* Alexander Hars, *supra* note 58.
[74]. *Bettencourt v. Hennessy Industries, Inc*., 205 Cal. App. 4th 1103, 1123 (2012).
[75]. *Barker*, 20 Cal. 3d at 430.
[76]. *Campbell v. General Motors Corp.*, 32 Cal.3d 122, 119 (1982).
[77]. *Id.*
[78]. *Campbell*, 32 Cal. 3d at 125.
[79]. *Barker*, 20 Cal. 3d at 431.
[80]. *Hansen v. Sunnyside Products, Inc*. (1997) 55 Cal. App. 4th 1497, 1512-1514.
[81]. *Full Self-Driving Hardware on All Cars*, Tesla Motors, *supra* note 2.
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[83]. *Rosburg v. Minn. Mining & Mfg. Co*., 181 Cal. App. 3d 726, 735 (Ct. App. 1986).
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[93]. *Id.*
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[97]. *Id.*
[98]. *Id.*
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[100]. *Id.*
[101]. *Id.*
[102]. *Ault v. International Harveste*r, 13 Cal. 3d 113, 121–122 (1974).
[103]. Olivia Solon, *supra* note 92.
[104]. *Id.*
[105]. *Barker*, 20 Cal. 3d at 432.
[106]. *Daly*, 20 Cal. 3d at 734.
[107]. *Id.* at 734.
[108]. *Id.* at 736.
[109]. *Knight v. Jewett*, 3 Cal. 4th 296, 314 (1992); *Fluor Corp. v. Jeppesen & Co*., 170 Cal. App. 3d 468, 480 (Ct. [App. 1985).
[110]. *Daly*, 20 Cal. 3d at 745-746.
[111]. Barbara Liston and Bernie Woodal, *supra* note 14.
[112]. *Id.*
[113]. Kyle Colonna, *Autonomous Cars and Tort Liability*, 4 J.L. Tech. & Internet 81, 117 (2012) ("When a new technology emerges, there is usually an increase in general negligence claims and liability.").
[114]. *Id.* at 110.
[115]. The Tesla Team, *A Tragic Loss*, *supra* note 21.