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A Drive for Change – The Ethical Dilemmas of Autonomous Cars

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by Michael Vitt

(English 1102)

America has always been home to some of the world's most innovative people, ever since it was established as a free market economy. This economic system gave some of the brightest minds in history the drive to invent and produce many modern conveniences, including the automobile. When Henry Ford[1] first produced the Model T in 1908, it gave the average consumer the ability to travel farther distances than ever before. Although the Model T served the needs of the people, it eventually gave way to newer models. Despite these upgrades, the drivers still had the responsibility of controlling the vehicle. Over several decades, some innovators saw this as a chore, and wanted to shift the responsibly of operating the vehicle from the driver, to a computer-automated system. Companies such as Google[2] and Tesla have pioneered self-driving cars; however, this new technology brings up important ethical questions. Autonomous cars push the limits on technology, and at the same time they also bring about new ethical and moral challenges for companies and individuals.

One of the benefits of living in the 21st century is the use of advanced technology to make daily life easier. With companies such as Google and Tesla developing self-driving cars, it is now becoming clear that this technology will be integrated into society in the upcoming years. Although this is the case, it also marks the beginning of many of the legal and ethical questions that will arise if there are any complications with autonomous vehicles that result in injury. One of the most difficult decisions that the makers of autonomous vehicles are faced with is what the best course of action is for the internal computers to take if there is going to be a crash. Some designers have proposed that the autonomous car should protect the internal passengers, while others believe that the internal computers should take a course of action that would prevent injury to other drivers or pedestrians on the roadway. Nick Belay, an honors law clerk and article editor at the University of Alabama School of Law states in an article titled, "Robot Ethics and Self-Driving Cars: How Ethical Determinations in Software Will Require a New Legal Framework," that, "variability makes it difficult to determine a consistently 'correct' course of action" (120). When Belay states this, it shows that there are no clear guidelines for ethical decisions, since every situation has too many variables that need to be taken into consideration. When a consumer purchases a car, they want it to be as safe as possible to protect not only themselves, but also their passengers, regardless of its autonomous capabilities. Although a car should protect its passengers, some would argue that it should do so without risking the lives of other commuters on the roadway. This dilemma brings numerous ethical questions to the table that many producers of autonomous vehicles are not yet prepared to answer. Belay suggests that, "the key to accomplishing these goals will be consistency in behavior" (129). As a result of this, some companies may limit the use of self-driving cars until there are a set of standards.

The technology that goes into producing autonomous cars is very advanced, and requires years of research and development to perfect. As a result of this, autonomous cars execute the tasks given by humans in an almost flawless manner. Carrie Schroll, an attorney at law for Wiley Rein LLP in Washington D.C., states in an article titled, "Splitting the Bill: Creating a National Car Insurance Fund to Pay for Accidents in Autonomous Vehicles," that, "Sebastian Thrun, one of the lead developers of Google's self-driving car, predicted that replacing all current cars with AVs would reduce traffic accidents by 90%" (808). Due to the projected reduction in injuries, some would argue that it would be morally wrong not to implement autonomous cars since they have the potential to

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save lives. Proponents of autonomous cars would argue that they are safer, pointing out that, autonomous vehicles "have a much more detailed and accurate picture of their surroundings in real time than a person possibly could" (Schroll 809). Since autonomous car computers have programming that can predict what will happen, they could prevent damage to property, and injuries to others. Schroll also suggests that "if car sharing of AVs becomes the norm and the causes of automobile accidents shifts away from human error, holding liable the people sitting in the car is no longer clearly the best option" (810). This advanced technology and ride sharing available in autonomous cars could ease any reservations that consumers have, and make them feel less ethically responsible if a complication were to arise.

In philosophy and ethics courses offered in colleges, students are asked hypothetical questions in order to determine what the most ethical course of action would be. When students are asked questions regarding the fate of others, most would attempt to choose an option that saves the largest number of innocent lives. From a moral standpoint, this makes logical sense since it did the least amount of damage to society overall. If a similar question is asked that involves sacrificing one's own life to save another, things aren't as clear. The people who try to save others become reluctant to do so if it requires them to give up their own life. Individuals feel apprehensive about giving up their life due to the fear that surrounds the concept of death. In a questionnaire where individuals are asked about what course of action an autonomous car should take if it has to decide between saving its passenger or a pedestrian, the results yield a predictable answer. According to the *MIT Technology Review* in an article titled, "Why Self-Driving Cars Must Be Programmed to Kill," edited by Mike Orcutt, they state that "people are in favor of cars that sacrifice the occupants to save others' lives – as long as they don't have to drive one themselves" (para 15). This statement shows that people do want to save the most amount of pedestrians possible; however, they would not have the same opinion if they could save their own lives first in an "unavoidable accident" (para 3). This demonstrates that people value their own lives more than those of strangers. If people's morals are challenged, it can make individuals uncomfortable, and thus become harder to integrate this technology into society without a pushback from the people.

In America, people are free to invent products, as long as they abide by the law. With the invention of autonomous cars came new sets of laws to regulate their use. Alexander Herd, a certified lawyer in New York State, states in an article titled, "R2dford: Autonomous Vehicles and the Legal Implications of Varying Liability Structures," that, "California's law mandates that the State's Department of Motor Vehicles have regulations in place for autonomous cars no later than 2015" (31f.). California was one of the first states in the country to establish official regulations for autonomous cars since many technological pioneers such as Google and Tesla operate in California.[3] With Google being one of the first companies to successfully test an autonomous car on the public roadways, California needed to make sure that they could continue to do so, but in a safe and legal manner. Police officers have a moral obligation to protect the people, and in order to do so, they need to have laws that allow them to properly do their job. Although programming for autonomous cars is getting better each year, it is, "too good to be true" to trust them to make the correct choices 100% of the time (Herd 36). Due to the possibility of a programming mistake, many people do not trust the use of autonomous cars, and feel that they do not have a place on the roadway.

One of the unique things about America is that it allows the people to live their lives how they please in a lawful manner. Since America is such a large country, it is almost necessary to drive to get from place to place. Although some people may view driving as a chore, and welcome autonomous cars, others love the control that they have while driving. According to an article titled, "The Increasingly Compelling Case for Why You Shouldn't Be Allowed to Drive," written by Matt Vella of *Time Magazine*, "there is no 'right to drive' enshrined in the U.S. Constitution, but forced to choose, a lot of people would rather take the wheel than the Fifth – no matter how many statistics are marshaled to prove that driving puts others' lives at risk" (54). From a purely ethical standpoint,

people should give up the ability to drive if they want to save lives, however, many people feel that doing so would be a violation of their freedoms, and thus feel that their individual liberties are being stolen by the government. This would then bring up the discussion about "freedom vs. security," which opens up a new discussion about if it is ethical to take away the peoples liberties to protect others (54).

When consumers purchase automobiles from manufactures, they are looking for a reliable vehicle that is also environmentally friendly. As a result of this, companies have had to design new engines to minimize pollution. One new way to reduce car pollution according to some car manufactures is through the use of autonomous vehicles. According to Ronald Leenes and Federica Lucivero in an article titled, "Laws on Robots, Laws by Robots, Laws in Robots: Regulating Robot Behavior by Design," they state that, "They [autonomous cars] are also expected to reduce fuel consumption and reduce traffic congestion" (199). Although there is some skepticism surrounding autonomous cars, some people may feel that it is their ethical responsibility to use transportation that is good for the environment, and thus begin to use them. Car manufactures have improved over the years, and will continue to do so if the people encourage them to take ethical courses of action.

The automobile has come a long way, ever since its mass production in 1908. Innovators have found ways to improve cars each year and make the consumer more comfortable. The new technology of autonomy will bring up a new set of ethical and moral questions for both the producers and the consumers to answer. Although the autonomous car may seem like a harmless concept, many people will have to determine if they feel comfortable giving up their ability to drive to a robot, and decide if the benefits outweigh the potential risks that are involved. When new technology is invented, it always brings up new questions that must be answered; however, it often benefits society as a whole. America has always been the world leader in technology, and the push to implement autonomous cars will help solidify America as a trend setter for innovation in the world today.

Notes

1. Henry Ford was born in 1863 and started the Ford Motor Company. One of his main achievements was his ability to produce a car that was in reach of all Americans in the middle class. He utilized the assembly line to make production both affordable and efficient.
2. Google is one of the world's most popular Internet search companies that also advances technology. Sebastian Thrun was one of the pioneers of Google's self-driving car project.
3. California is home to many technology companies located in Silicon Valley. Companies such as Google, Tesla, Apple, and many other "start-ups" create new technology in California.

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