

1. **Mark your confusion.**
2. **Show evidence of a close reading.**
3. **Write a 1+ page reflection.**

Top 20 Pros and Cons Associated with Self-Driving Cars

Source: AutoInsuranceCenter.com

If there's one topic that gets a lot of attention lately in the media, the public policy sphere, and in general health and wellness discussions, it is how to make the roadways safer. According to the Centers for Disease Control, fatalities from traffic incidents happen on an annual basis upwards of 33,000 people. Many of these accidents are preventable, and an alarming number of them are a result of distracted driving.

In the past few years, as a result of the number of traffic accidents plaguing the country and the devastating injuries and fatalities that result from them, a greater push has been made in the sphere of technology to make cars safer, drivers more aware, and accidents less likely.

Alongside other technology that has emerged during this time is the idea of self-driving cars, an advancement that seems like it belongs in a futuristic movie.

The reality is that self-driving cars aren't that far off, actually, but the debate over whether they increase or decrease safety rages on.

Pros: Self-Driving Cars

1. In comparison to the myriad of bad behaviors a driver might exhibit behind the wheel, a computer is actually an ideal motorist. Since 81 percent of car crashes are the result of human error, computers would take a lot of danger out of the equation entirely.
2. Computers use complicated algorithms to determine appropriate stopping distance, distance from another vehicle and other data that decreases the chances of car accidents dramatically
3. There are no opportunities for a computer to be "distracted", which is a leading cause of accidents in the United States at present.
4. Although it's not clear to what extent lives would be saved, it's obvious that human driven cars come at a very high cost in terms of danger.
5. The U.S. Department of Transportation actually assigns a value to each human life: \$9.2 million. Therefore, there would be a significant cost savings in many different venues like insurance costs and healthcare costs associated with accident recovery alone.
6. As an article from Forbes points out, there is also a cost savings associated with time. When a computer takes over the driving responsibilities, drivers can use that time to do other things, like catch up on reading or chat with passengers, all without having to worry too much about road safety.
7. According to Eno Transportation, self-driving cars in large number participate in a behavior known as platooning, which would significantly improve traffic conditions and congestion. This would help to reduce commute times for drivers in high-traffic areas but also to maximize on gasoline usage.
8. In order for the cars to operate most efficiently, they'd need to communicate with one another, helping to identify traffic problems or road risks early on.
9. Disabled individuals, who have to rely on public transportation or assistance from others to get around, could reap the benefits of self-driving cars with new freedom and enhanced mobility, as suggested by the *New York Times*.

10. Larger cities are plagued with the problem of providing adequate public transportation. Many have a lack of appropriate infrastructure to support the needs of their residents, a void that could partially be filled by self-driving cars.
11. Over time, higher speed limits might be considered as an option if more people are using self-driving cars. Since the computers calculate operation of the vehicle safely, driving time could be reduced by faster speeds allowed on the road.
12. Companies are always interested in new product development and taking the industry forward by a step, as indicated by the seven companies who requested permits for self-driving car development in California alone.
13. Many cars are already equipped with features in the first stage of "automatic" driving, like autonomous braking, self-parking, or sensors that clue a driver in to a nearby obstacle.
14. Drunk driving incidents should decrease, because there's no designated driver needed when the car drives itself.
15. Massive savings could be recouped from being spent on older mass transit projects like trains.
16. Police officer focus could be shifted from writing traffic tickets and handling accidents to managing other, more serious crimes.
17. Sensors in the autonomous cars allow vehicles to ride closer together, therefore allowing more cars on the road with actually less traffic.
18. Less parking structures and parking headaches would be required, since your car could actually drop you off and locate a parking space farther away.
19. The line at the DMV would be cut short since people wouldn't need a specialized driving license to operate cars.
20. There is a less of a concern about taking the keys away from Grandma when she gets too old to drive carefully- the car will take care of her!

Cons: Self-Driving Cars

1. Just having the ability to operate a self-driving car would require an education on the driver's part, according to Teletrac. While the computer takes over once the vehicle is operational, the driver would still be required to maintain some knowledge about how to operate it safely.
2. The cost of implementing the new technology could be way out of reach for most Americans. Currently, the engineering, power and computer requirements, software, and sensors add up to more than \$100,000.
3. The most savings in terms of cost, time, and lives is going to come from when more people "opt in" to the service. If self-driving cars are not adopted widely, accidents can and will still happen.
4. The very security behind self-driving cars would be a major obstacle, especially because the technology would be of very high interest to hackers, as pointed out by the Guardian.
5. In order for a computer to operate a vehicle, a lot of information would have to be stored on the software. Some individuals are concerned about the opportunity for a computer built into the self-driving car to collect personal data.
6. Even though there are concerns about the adequate nature of public transportation, self-driving cars would eliminate many jobs in the transportation sector, especially when it comes to freight transportation and taxi drivers. This could have a negative impact on the unemployment rate and the economy.
7. A self-driving car doesn't completely eliminate the likelihood of a car accident. In fact, there's no legal precedent for how a case would be handled. The difficult question of who holds responsibility in a car accident- the driver? The car manufacturer? The software developer? Could be tricky to answer.

8. The cars are not able to operate at a high level of safety in all weather conditions. In fact, heavy rain can do serious damage to the laser sensor mounted on the car's roof, calling into question what role the driver might have to play in the event the technology fails.
9. If other technology fails, such as traffic signals that the cars rely on, there's no accounting for human traffic signals. In the event of an accident, for example, where a police officer is directing traffic, the cars cannot interpret human signals.
10. The reliance on technology could mean that over time, drivers are no longer equipped with the skills to operate cars. In the event of a technology glitch or recall, drivers might be helpless to get around, having been "out of practice" in the driving world for some time.
11. Full development of self-driving cars still raises a lot of questions and concerns on behalf of drivers, so it's unclear how full adoption of the technology might be.
12. Many individuals are nervous about handing over all the power to a computer, which could malfunction and put the driver in a more dangerous situation than if the driver were manning the vehicle himself or herself.
13. It's unclear how self-driving cars would maneuver through hazards like roadblocks or unique local driving laws. A good example is the difference between states regarding turning right on red. The computers could have difficulty identifying the different local and state rules with regard to the road.
14. The success of self-driving cars currently relies on accurate mapping systems through GPS. As anyone who has been advised to turn down a one-way street or been told by their GPS they were driving on a non-existent street can attest, GPS devices are not always accurate. There are security concerns about self-driving cars, too. Director of research for infotainment and advanced driver assistance systems at the research group known as IHS Automotive, Egil Juliussen, says that "Electronics systems in cars currently have no or very limited security measures."
15. The NHTSA remains skeptical of the technology behind self-driving cars, even calling for a ban on them at one point until further testing could be completed.
16. Since Google is currently at the helm of development for the cars, other auto manufacturers might sell fewer cars in the event that Google's version takes off.
17. The gasoline industry is likely to suffer because, taking the note of "new and improved" it's likely that the self-driving cars would be electric.
18. Personal injury lawyers may see a reduction in their earnings if self-driving cars truly are safer and reduce the number of accidents on the road.
19. Driver's ed courses would lose money and go out of business because there would be less of a need to educate people how to drive.
20. People who enjoy driving are unlikely to buy into the technology that means they no longer need to focus behind the wheel, so they are likely to keep their own vehicles rather than trading in for a self-driving vehicle.

Possible Response Questions:

- What are your thoughts about driverless cars? Share.
- These lists were put out by the auto insurance industry. Can you find bias in these lists? Are there other factors that were overlooked or missed?
- Discuss a "move" made by the writer in this piece that you think is good/interesting. Explain.
- Pick a passage from the article and respond to it.