PRO/CON: Self-driving cars are just around the corner. Is it a good thing?

By Tribune News Service, adapted by Newsela staff

Grade Level 6

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Article 1: Robert W. Peterson

PRO: Sit back and enjoy the self-driving ride

Are Americans ready for cars that can drive themselves? Yes, and they have been for more than a century.

The horses that pulled buggies did not need anyone to drive them. They were capable of finding their way home with little or no help from humans. Traveling without a driver is not a new idea — it’s just a better way to travel.

At the beginning of the 20th century the number of vehicles increased. The rate of deaths and injuries caused by vehicular accidents likewise jumped. Modern technology and safer car design have helped decrease the number of fatal crashes, but the numbers still remain staggering.

Making The Streets Safer

In the U.S. alone, vehicular accidents have killed more than 32,000 people each year for the past five years in which accidents were tracked. That’s as if five 737 jets crashed every week. It is more than double the number of people who died worldwide during the recent Ebola outbreak.

Between 93 percent and 95 percent of these fatal accidents are caused by human error. That figure comes from the National Highway Traffic Safety Administration, the government agency that works to make America's roads safe.

In addition to deaths, vehicle accidents send about 2.5 million injured people per year to emergency rooms. We accept these accidents because cars are incredibly useful and give us the freedom to go where we want, when we want. Self-driving vehicles deliver even greater utility by freeing driving time for other things. Instead of driving, people could be texting, working or just relaxing.

The self-driving cars that are now being developed use many forms of technology to drive themselves. Radar, cameras and other devices are used to "see" the world around the car. Advanced computer systems drive the car from one destination to another without any help from humans. These cars should soon be ready for mass production.

Self-driving cars remove many of the human mistakes that cause injuries and deaths. Self-driving cars can also help disabled and elderly people get from place to place on their own.

On The Road Toward Self-Driving

That is not all. Young people seem to love driving less than they did in the past. They drive fewer miles and some do not even get their driver's license. Rather than driving to see friends, they may simply text or call them. For many young people, owning a smartphone is now more important than owning a car.

Buying a car is also a major expense, as is paying for the gas that fuels it. Then there is the insurance people have to buy to protect them in case they get into an accident. A good insurance plan might pay for all the damage caused by an accident, but it could also cost hundreds of dollars each month. That cost would be lower with self-driving cars.

In some ways self-driving cars are already here. Some of the most recent safety improvements in cars come very close to self-driving. New technology can control a car's speed, keep it in its lane and help with parking. These put us on a clear path toward self-driving cars.

Of course, self-driving cars will not create a perfect world. There will still be some accidents, although far fewer. There will be some people who will never give up driving their cars and others who live in areas difficult to serve with self-driving cars.

Some lawmakers may try to prevent self-driving cars from using our roads. They might do this fearing the criticism that will come after the first accident caused by a self-driving car. Other people will see self-driving cars as a threat to their business and try to stop them from becoming popular.

Self-driving cars offer such a wealth of advantages that it makes little difference whether Americans are ready. Americans need to get ready. Self-driving cars will soon be in their rear-view mirrors.

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Article 2: Eric Peters

CON: You can't take humans out of the self-driving equation

No one likes backseat drivers. They question every decision a driver makes and sometimes they can be nagging. They constantly attempt to correct what they consider to be the driver's errors of judgment.

Can you imagine a backseat computer doing the same thing? One you can’t kick to the curb?

The computer in question would actually be under the dashboard. It will soon be taking over the driving for you.

It’s the self-driving car, and it’s no longer science fiction. It’s already here. Bits and pieces of it, anyhow. Many new cars use cameras and sensors to park themselves, for instance. Others have accident avoidance systems that can completely stop the car without the driver even touching the brakes.

Introducing The V2V Cadillac

Next year, General Motors will debut vehicle-to-vehicle, or V2V, communications in some of its Cadillac models.

The system makes it possible for cars with V2V technology to have electronic conversations among themselves. They will be aware of one another’s position and speed in order to predict and avoid accidents. This could prevent situations where, for instance, car A runs a red light because its driver wasn’t paying attention and strikes car B.

With V2V, the driver of car A would be safety-netted by the car. Car A would automatically brake for the light and avoid hitting car B.

These are some of the elements of the fully self-driving car. And some of it sounds good — and may well be. But taking the driver out of the equation entirely — or relying too much on technology — can have its downside, too.

As anyone who owns a computer knows, computers develop glitches. It’s annoying when it happens at your desk. But it could be deadly when it happens at 75 miles per hour on the freeway.

And it’s probably more likely to happen with a self-driving car. The computer that controls the car — unlike the computer on your desk — will be subjected to extremes of heat and cold, vibration and moisture, et cetera.

Over time, something’s likely to go wrong. If the human driver has become only a passenger — no longer expected or perhaps even able to actually drive the car — what will happen?

If The Driver's No Longer The Driver ...

And who will be responsible? Legally speaking, the driver is currently responsible for the safe operation of the vehicle.

But how can we hold the driver responsible when he or she is no longer the driver?

Will the manufacturer of the self-driving car be to blame in that case?

How will car insurance rules and costs change?

If the driver no longer is a driver, why should he or she be required to buy insurance at all? If the person is not actually driving the car, he or she will not need protection from the damages caused by any accidents. Will he or she even need a driver's license? When you ride the bus you are not required to have a special license — or carry insurance. Why wouldn’t the same principle apply here?

An even bigger problem with self-driving cars is how to program them to ignore traffic laws when it’s necessary in order to avoid an accident. For example, cars cannot cross the double yellow line. What happens if a child runs into the car’s path and the only way to avoid hitting the child is to turn out of the way?

It’s against the law, technically, to cross the double yellow line — but it’s the right thing to do in this instance. And a human driver would do it, but a self-driving car might not because it is programmed to obey the traffic laws. Unlike humans, the self-driving car cannot use its judgment to ignore a law to save a life.

Also, how will self-driving cars deal with human-driven cars, and what about the reverse? Will people who own human-controlled cars be required to turn their cars in or no longer be allowed to drive them?

Technology is usually a good thing, but problems arise when technology is no longer under human control, as could happen here.

Technology that assists human drivers — that’s a great idea. But technology that pre-empts them — that could be a very bad idea, indeed.

ABOUT THE WRITER: Eric Peters is a veteran automotive journalist and author of “Road Hogs” and “Automotive Atrocities.” Readers may write him at 721 Hummingbird Lane SE, Copper Hill, VA 24079 and visit his web site at www.EPautos.com.

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Student Handout

(PRO) “Sit back and enjoy the self-driving ride” by Robert W. Peterson

1. Claim: Self-driving cars will make the roads safer by removing many of the human mistakes that cause injuries and death.

Evidence:

Evidence:

Evidence:

Are there any problems with this line of thinking or evidence?

Was this good support? Why or why not?

2. Claim: Self-driving cars will help disabled and elderly travel.

Evidence:

Are there any problems with this line of thinking or evidence?

3. Claim: Self-driving cars will create a better quality of life by freeing up drive time.

Evidence:

Are there any problems with this line of thinking or evidence?

4. Claim: Younger people are driving less than young people in the past.

Evidence:

Are there any problems with this line of thinking or evidence?

Was this good support? Why or why not?

5. Claim: Self-driving cars will reduce people’s expenses of buying a car, insurance, and gas.

Evidence:

Are there any problems with this line of thinking or evidence?

6. Claim: Self-driving cars are already here.

Evidence:

Are there any problems with this line of thinking or evidence?

(CON) “You Can’t Take Humans out of the Self-Driving Question” by Eric Peters

Guided Practice

1. First point/Concession of good of self-driving cars:

Evidence:

Are there any problems with this line of thinking or evidence?

2. Claim:

Evidence:

Are there any problems with this line of thinking or evidence?

3. Claim:

Evidence:

Are there any problems with this line of thinking or evidence?

4. Claim:

Evidence:

Are there any problems with this line of thinking or evidence?

5. Reason:

Evidence: Child in road example

Are there any problems with this line of thinking or evidence?

ANSWER KEY:

Supports (PRO) Peterson

1. Claim: Self-driving cars will make the roads safer. Self-driving cars will remove many of the human mistakes that cause injuries and death.

Evidence: number of crashes each year for past 5 years

Evidence: 93-95 % of accidents caused by human error.

Evidence: Number of ER trips for accident injuries.

Are there any problems with this line of thinking or evidence?

Was this good support? Why or why not?

Problem of the dangers of driving has been identified and supported. Proof that self-driving cars will eliminate this danger has not been proven.

2. Claim: Self-driving cars will help disabled and elderly travel.

Evidence: None given.

Are there any problems with this line of thinking or evidence?

The use of self-driving cars will still cost money. Will the disabled and elderly have the money to buy this service?

It is a logical point that elderly people who can no longer drive safely and disabled people could benefit from this technology. But, this logical point is not supported with any evidence.

3. Claim: Self-driving cars will create a better quality of life by freeing up drive time.

Evidence: It is a logical conclusion that if people don’t have to drive, they can use the time to text, work, or relax.

Are there any problems with this line of thinking or evidence? No, this is logical.

4. Claim: Younger people are driving less than young people in the past.

Evidence: They text or call instead of seeing friends in person.

Are there any problems with this line of thinking or evidence?

This claim does not support the position that self-driving cars are a positive. This just supports the idea that fewer cars in general will be needed in the future. This is a refutation or “smash down” of the argument that people like to buy and to drive their own cars.

5. Claim: Self-driving cars will reduce people’s expenses of buying a car, insurance, and gas.

Evidence: No need for insurance if not driving

Are there any problems with this line of thinking or evidence?

People will still have to purchase self-driving cars or a self-driving car service. There is no proof that passengers will not need insurance to ride in self-driving cars.

6. Claim: Self-driving cars are already here.

Evidence: New technology in cars can control speed, keep car in its lane, and help with parking.

Are there any problems with this line of thinking or evidence?

These new technological changes in current cars are not the same as a completely self-driving car. Cars that beep when a car drifts out of the lane are not the same as cars without human drivers.

Opposes (CON) Peters

1. Claim: Self-driving cars may be able to prevent some accidents.

Evidence: Explanation of running red light accident and “electronic conversation” among cars.

Are there any problems with this line of thinking or evidence? Not really. This is a nice concession of an advantage of self-driving cars.

2. Computers have glitches, so self-driving cars would have glitches, too.

Evidence: The self-driving cars will be subject to hot and cold elements.

Are there any problems with this line of thinking or evidence? Not really.

3. Self-driving cars bring up a lot of questions about responsibility, insurance, even drivers’ licenses.

Evidence: previous principles such as riding a bus

Are there any problems with this line of thinking or evidence? Not really.

4. Self-driving cars will not be programmed to ignore traffic laws in order to avoid an accident.

Evidence: Example of child in the road

Are there any problems with this line of thinking or evidence? Not really. Strongest point

5. Claim: Technology is usually a good thing, but technology no longer under human control is scary.

Evidence: Child in road example

Are there any problems with this line of thinking or evidence? very little evidence given

Independent Practice Answer Key:

In these two articles, one is not drastically better than the other. There are usually examples of good and poor evidence within each text for the GED extended response.

Eric Peters’s article is better supported because it gives detailed information about new technology that can prevent some accidents, it uses a logical example that self-driving cars will likely have some glitches, and it uses a very memorable scenario involving a child in the road that emphasizes the danger of self-driving cars. Peterson’s article does not consider the dangers of a lack of human judgment in unusual situations such as the one with the child in the road. He uses some excellent facts and statistics to prove that driving or riding in cars can result in injuries or death. However, he doesn’t prove that self-driving cars will reduce the number of accidents.

OR

Peterson uses facts and statistics to prove that driving or riding in cars can be dangerous. He uses a statistic from the National Highway Traffic Safety Administration to prove that most accidents are caused by human error. Self-driving cars claim to eliminate some of those human errors. Thus, self-driving cars could eliminate some accidents. Furthermore, Peters only uses logical ideas that are not supported by any facts or statistics from others to make his case against self-driving cars. In fact, self-driving cars may be able to be programmed to stop for a child in the road.