

5 Self-driving cars may not be widespread just yet, but it's only a matter of time before they become a normal part of everyday life. While all technological innovations have benefits, what's particularly interesting about this one is that it comes with a wide array of positive second-order impacts. Self-driving cars are not just an opportunity to avoid having to focus on the road; they are an opportunity to transform society for the better.

Traffic is one of the biggest problems faced by modern cities. In addition to being a massive waste of time, it also causes stress and leads to terrible fuel mileage. Fortunately, autonomous vehicles can drive in a perfectly optimal way, accelerating and decelerating with a logical rigor that isn't subject to human error. What's more, autonomous vehicles can *talk to each other*. When these features are combined, the potential is huge. They alleviate the issue of 'phantom congestion', a phenomenon that significantly impacts traffic efficiency and safety. "Phantom congestion" is traffic that arises from simple human errors in driving — like braking too quickly. With less traffic, people will have better mileage. And better mileage doesn't just mean fuel savings; it also means fewer emissions going into the environment.

But the hidden benefits hardly stop there. The National Highway Traffic Safety Administration (NHTSA) estimates that 39,345 people died in traffic accidents in the US in 2024. The good news is that self-driving vehicles can help us mitigate the risk of traffic accidents — a lot. According to a 2015 NHTSA report, 94 percent of crashes have driver error as the "critical reason" for the crash.

One of the biggest changes that will likely emerge with self-driving cars is the rise of self-driving trucks and taxis. With no more need to hire a driver, moving people and goods from one point to another will become considerably cheaper.

Add in the economic benefits of better traffic and road safety, and you're looking at a technology that could make a real difference for global prosperity. While self-driving cars come with many benefits, there are also legitimate concerns around them that are worth taking seriously. Cars that can talk to each other are great, for instance, but what if I don't want my information being shared?

Another factor to consider is ethics. Since accidents can't be fully eliminated even in a self-driving world, autonomous vehicles have to be programmed to make sudden decisions — do I hit the cyclist or risk the driver's life? If cars are programmed to always prioritize the driver, there could be some genuine concerns about how that will play out on the streets.

Economically speaking, the downside of self-driving trucks and taxis is thousands of truck drivers and taxi drivers finding themselves out of work. Adjusting to the new economic reality is probably best — we don't want to preserve obsolete industries in perpetuity — but it's understandable to be worried about how that transition will take place.

Having said that, the benefits to be gained from self-driving cars seem to far outweigh the downsides. So let's not let fear get in the way of technological progress; instead, let's push forward and find ways to manage the hard parts. (528 words)