



Source: Kelley Blue Book

SELF-DRIVING CARS

POSSIBLE ESSENTIAL QUESTIONS

- How could self-driving cars most benefit people and communities?
- What measures can companies, researchers and technology developers take to ensure self-driving cars are safe and reliable?
- Is it possible for self-driving cars to develop cultural understanding of drivers in different cities and regions?
- Is it possible for ethics and decision-making skills to be reliably programmed into self-driving cars?
- In what ways will self-driving cars impact jobs and the workforce?

The [Sustainable Development Goals](#)

- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

BACKGROUND

From the NYT Article “The Costly Pursuit of Self-Driving Cars Continues On. And On. And On.” by Cade Metz

“Self-driving tech is not yet nimble enough to reliably handle the variety of situations human drivers encounter each day. It can usually handle suburban Phoenix, but it can’t duplicate the human chutzpah needed for merging into the Lincoln Tunnel in New York or dashing for an offramp on Highway 101 in Los Angeles.”

Envisioning a world where humans are transported around by self-driving cars, or autonomous vehicles (AVs) seems futuristic, fun and maybe even a little frightening. There has been a lot of hype about how soon this fantasy will become reality. There are many reasons to explain the delay in making self-driving cars readily available. Some of these reasons include safety testing and the unexpected challenges presented by robotic technology development, while other challenges and questions include the impact of self-driving cars on public transportation as well as the rideshare, taxi and traditional automobile industries.

An additional unknown factor regarding the way in which self-driving cars will affect the future is how to include them in urban planning. Much of the theory surrounding this is still speculation, for example how their increase in popularity will result in the repurposing of urban space. Because driverless vehicles will drop off passengers and move on, the vast amounts of space dedicated to massive parking garages can be repurposed into countless possibilities such as housing, recreational parks and open space.

Finally, another relatively unknown factor is if self-driving cars will impact the environment positively or negatively. For example, if self-driving cars increase ride sharing, that will reduce emissions. In addition, the technology could potentially allow self-driving cars to travel closer to one another, providing more extra space to plant trees or add bike lanes in traditionally crowded areas. On the other hand, depending on affordability, more individuals may want to own their own self-driving cars for ease and convenience of long commutes. Only time will tell how the risk factors of autonomous vehicle technology development will be addressed as well as in what ways self-driving cars will impact society, the economy and the environment.

RESOURCES

Personal Stories

- [11 Autonomous Driving Stories You May Have Missed](#) (Clean Technica)
- [Next City: Driverless Car Stories from Cities around the World](#) (Next City)

Articles

- [The Costly Pursuit of Self-Driving Cars Continues On. And On. And On.](#) (NY Times)
- [Companies are racing to make self-driving cars. But why?](#) (Washington Post)
- [Can you program ethics into a self-driving car?](#) (IEEE)
- [Graham Currie: Autonomous cars are 'over-hyped', public transport is the future](#) (ATSE)
- [Toyota Announces New Self-Driving Auto Software, Challenging VW and Daimler](#) (Forbes)

Data and Maps

- [City planners eye self-driving vehicles to correct mistakes of the 20th-century auto](#) (Washington Post)
- [Autonomous Car Data: Future Cars Run on Data, Not Gasoline](#) (Summa Linguae)

Literature

- [Self-Driving Cars](#) by Katie Marsico
- [Have you Seen a Self-Driving Car?](#) By Anna Prakash-Ashton Ph.D & Elaina Ashton
- [Driven: The Race to Create the Autonomous Car](#) by Alex Davies
- [How Autonomous Vehicle will Change the World: Why self-driving car technology will usher in a new age of prosperity and disruption](#) by Anthony Raymond

Art/Images



Podcasts

- [The Good, the Bad and the Ugly: How to Plan for a Driverless Future](#) (UPenn)
- [PAVEcast: A Conversation about Autonomous Vehicles "AV Facts vs. Fiction"](#) (Apple)
- [Self-Driving Cars: Podcast Series by Dr. Lance Eliot](#) (Apple)

Videos

- [Why you should want Driverless Cars on Roads Now](#) (Veritasium)
- [TED-Ed - The Ethical Dilemma of Self-Driving Cars](#) (Ted-Ed)
- [4 Major Problems for Self-Driving Cars!](#) (Electric Cars are Lit)
- [TEDxCollegePark - How will Autonomous Vehicles Transform Our Cities?](#) (TedX)
- [TEDxGreenville - Self Driving Cars: Good, Bad or Indifferent](#) (TedX)

Websites

- [Cruise](#)
- [Tesla - Autopilot](#)