RESOURCE

Driverless cars: where they've been, where they're going, and why it matters for CRE

buildout

The first driverless car, the "American Wonder," made its way down Broadway in New York City in 1925.

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The driverless car—the most talked about tech of today—has actually been on people's minds for almost 100 years. After all this time, autonomous vehicles are soon to be an everyday reality.

The first driverless car, the "American Wonder," made its way down Broadway in New York City in 1925. It wasn't exactly autonomous: It had to be remotely operated by a person in another car less than 50 feet away from it. And while people at the time thought the concept was interesting, it wasn't practical, and the public continued to think of driverless cars as a pipedream for the rest of the century.

Now, the technology behind driverless cars is accelerating at an incredible rate. Autonomous vehicles have the potential to drastically change our everyday lives very soon. Once unreliable humans are eliminated from the driving equation, tens of thousands of lives will be saved every year

Why are driverless cars important?

DRIVERLESS CARS WILL MAKE US SAFER.

Human error accounts for 90 percent of car crashes that occur in the U.S. every year and these accidents end approximately 40,000 lives. Autonomous vehicles will entirely eradicate human error from driving. Once unreliable humans are eliminated from the driving equation, tens of thousands of lives will be saved every year and even more will be protected from serious injury.

DRIVERLESS CARS WILL MAKE TRAVEL MORE EFFICIENT.

Some experts predict that self-driving cars could completely eliminate traffic congestion by the year 2030. Once intelligent machines control the flow of traffic instead of humans, commute times will be shorter. As a result, much of the time we now spend in transit will become available for productivity or leisure at our desired destinations.

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When can we actually expect to travel by driverless car?

In 2009, Google said they wanted to build a driverless car by the year 2020. That's just two years away, so will Google—or any other company—actually hit that mark and make their cars available to the public? It's possible. Some of the greatest minds in the tech world are throwing their weight behind driverless cars, and Elon Musk claims that in just 20 years, driving a car will be like riding a horse down the street today. And futurists and Silicon Valley technologists aren't the only ones working on developing driverless cars. Every major carmaker has an autonomous vehicle program in place. The consulting firm Navigant Research counts 18 active programs aiming to bring driverless cars to the streets.

The major players in the race to make the first commercially available driverless car—like Google, Daimler, Ford, Tesla, Uber, Volvo and Apple—all have the money and research teams behind them to introduce their cars to the world very soon, but unfortunately, outside factors are keeping them from bringing those vehicles to the masses. ivity or leisure at our desired destinations.



WHAT'S HOLDING DRIVERLESS CARS BACK

The tech is so far advanced that it's almost here, so what's holding us back? Simply put: people. Now, the problem lies with educating the public and creating policy, not developing the tech.

In 2016, a Tesla driver in Florida marked the first reported driverless car fatality when he crashed

while watching a movie with the car on autopilot. On the heels of that report, an AAA survey revealed that more than half of Americans "would feel less safe sharing the road with self-driving cars while they drive a regular car." This public disapproval could be a major hindrance to a widespread rollout. The government in India has even flatly said no to allowing driverless cars on the road out of fear of jeopardizing jobs.



But like all groundbreaking new technology, all it takes is a few early adopters to start using the cars before they catch on with the general public. First, the cars just have to get to those early adopters.

Our roads just aren't ready for autonomous vehicles quite yet. It will take a lot longer to build cars that can operate in existing city environments, so instead, cities should develop strategic plans to accommodate driverless cars. City plans that put autonomous vehicles first by outlining the development of special lanes, drop-off zones and weather management would allow the cars to operate even sooner.

But despite the lack of necessary policy and public approval, there's still plenty of evidence that the future of driverless is fast approaching.

2017 driverless car news highlights

Driverless cars have made a lot of progress, even just this year. Studies, tests, assertions, advancements and more made headlines in 2017.

JANUARY

Expert asserts "kids born today will never get to drive a car" [*View article*]

Tesla aims to eliminate 90 percent of crashes [View article]

MARCH

Expert says self-driving cars will eliminate traffic congestion by 2030 [View article]

Uber's self-driving cars are officially allowed on California roads [View Article]

MAY

Toyota develops strategy using Blockchain to improve driverless car technology faster [View article]

FEBRUARY

DMV report shows autonomous cars are safer when humans aren't involved *View article1*

APRIL

Mercedes-Benz promises self-driving taxis in just three years [View article]

Apple approved to test autonomous cars on real roads [View article]

JUNE

Washington governor allows driverless car tests without a human behind the wheel [View article]

GM says they're ready to mass-produce self-driving cars [View article]

U.S. Senators reveal the six principles they'll use to regulate self driving vehicles [View article]

University of Michigan launches self-driving buses [View article]

JULY

Ruderman Foundation report stresses the importance of driverless cars for individuals with disabilities [View article]

Study finds human ethics can be programmed into driverless cars [View article]

Self-driving cars travel through tunnel in Detroit [View article]

SEPTEMBER

Germany implements world's first ethical guidelines for driverless cars [View article]

NOVEMBER

Waymo takes the human out of their driverless cars [View article]

Driverless cars will be on UK roads by 2021 [View article]

Driverless cars promise greater mobility for the elderly and people with disabilities [*View article*]

Japan's latest driverless car hits the Tokyo highway [View article]

OCTOBER

Unanimous vote approves legislation to allow carmakers to test autonomous vehicles with little to no hindrance from state governments [View article]

Expert body in Australia says owners of driverless cars should be exempt from DUI laws [View article]

MIT researchers develop an Al camera that can see around corners, which would improve a driverless car's spatial awareness [View article]

California DMV releases regulations for driverless cars on public roads that point to a June 2018 arrival [*View article*]

Researchers begin developing ways for virtual reality to accelerate improvements in machine learning for driverless cars [View article]

DECEMBER

Denver's first driverless shuttle hits test track [View article]

Lyft puts driverless cars to work in Boston [View article]

AUGUST

Ford removes steering wheel from driverless car design [View article]

University studies show how pedestrians respond to driverless cars [View article]

AMANN

Almost 2.5 million parking spaces in garages and lots in LA will be redeveloped for housing, retail, office spaces or recreational use.



Why driverless cars matter for CRE professionals

Technology is constantly in motion, but buildings remain stagnant. Every new technological advancement has a potential impact on a property. Consider the implications of a future with driverless cars today and use that knowledge to inform forward-thinking discussions with buyers and investors.

SPACES DEVOTED TO PARKING WILL BE REDEVELOPED

In Los Angeles alone, up to 17,020,594 square meters of land is devoted to parking. With autonomous cars, almost 2.5 million parking spaces in garages and lots in LA will be redeveloped for housing, retail, office spaces or recreational use. These redevelopments will occur in every city all over the world, opening new opportunities for buyers and investors.

PEOPLE WILL BE MORE WILLING TO TRAVEL LONGER DISTANCES FOR THEIR COMMUTES

Driverless car travel will be more efficient and urban sprawl will occur at a faster rate. Your buyers—of multifamily, office, retail and industrial—will be open to property recommendations within a greater area because their tenants will be able to travel to and from those locations faster than ever.

Help your clients plan ahead for the latest technological developments and stay ahead of the curve with their investments. If you're interested in up-to-the-minute insights about the latest in cutting-edge technology and how it will affect the CRE industry, subscribe to the Buildout blog.

Buildout is a marketing tool for the whole brokerage. It produces and publishes custom materials and streamlines the entire property listing process. With Buildout you can **manage and market** all of your CRE listings from one centralized place, saving you time to focus on more important things.

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