We are about to hit the era that is the Autonomous Vehicle (AV for short)

An Autonomous vehicle is one that can drive itself without human participation. It can sense the environment around it and act accordingly to ensure a safe trip from A to B. They use technologies such as Radar, Sonar and GPS just to name a few to complete their task.

These vehicles are also kitted out with communications technology to allow them to talk to other autonomous vehicles and roadside information providers. This tool will allow them to avoid roadworks and traffic congestion effectively. Regarding the connectivity side of this technology it is believed that in the future traffic lights and stop signs will be replaced with systems that connect and manage the vehicles when going through intersections and other tricky road blocks.

Some of the safety features of these autonomous vehicles are what captures my attention the most. The average reaction time for a human Is .215 seconds. The average reaction time for an autonomous vehicle is .001 of a second. It would not only correct itself almost instantaneously but it would do so without the human error. Intense situations like a possible car crash can cloud the judgement of a driver forcing them to make the wrong decision. An autonomous vehicle with make the most logical decision.

In 2016 Uber in Pittsburg started to have cars running on level three automation that could be called in a similar fashion to uber to transport you from A to B. Level three automation means there is a man sitting in the drivers seat but he does not touch the wheel unless there is a problem.

In June 2017 the top ten car manufacturers all announced that they would have Autonomous Vehicles ready for the market by 2021.

In November 2017 Google started to run level four automation cars on a trial basis. Level four automation means there is no one in the car and it is completely self sufficient.

In 2018 Waymo announced that they would have a fully operational level four Automation Uber service running in the Phoenix area by the end of the year.

Currently LYFT is carrying passengers around San Francisco and Phoenix in autonomous vehicles. While its next competitor UBER is carrying passengers around Pittsburgh under level three automation.

In three years time the rollout of the Autonomous vehicle will have begun. The president of LYFT has predicted that in five years the majority of rides will be given by Autonomous vehicles. The rides at first will only be in limited areas and at low speeds but as the technology grows and updates so to will the reach these cars have on the transportation industry.

<https://www.wbrz.com/news/exec-most-lyft-rides-will-be-in-autonomous-cars-in-5-years>

CEO of Ford Mark Fields says “We see the upcoming decade for the automobile really centered around the automation of the automobile. Ford has also promised that they will have a decent amount of autonomous vehicles on the road. To achieve this they have doubled the amount of people working at their Silicon Valley research center to 300. They have also tripled the amount of cars being tested at said research facility.

<https://www.wired.com/2016/08/ford-autonomous-vehicles-2021/>

Our cars are parked 95% of the time, creating over 1 to 2 billion parking spots in U.S.A alone. When Autonomous vehicles are prevalent the need for parking will be reduced by 80%. The idea is that the customer would call his/her AV which would then take them to where they need to go. Once it has finished with them it will move onto the next customer. This system keeps the cars constantly moving and working nullifying the need for as many parking spaces. Some of the potential benefits of not needing so much parking are

* Could build much more densely after all the space has been freed up
* Housing will be much more affordable as there will be a massive influx of new potential homes

Some of the potential negative effects are

* Property Values will drop due to increase in supply with no shift to demand
* If property value goes down, property tax follows which would result in the community having a smaller budget for infrastructure

Autonomous vehicles are not a transportation Issue, the are a massive innovation for the transportation industry. They will however be an economic issue that will affect everyone on a massive way. Hopefully we are prepared for such a massive change.

How will this affect you (300 words)