IT technologies – Autonomous vehicles

**What does it do?**

Autonomous vehicles/driverless cars/self-driving cars do exactly what is stated in its name. They drive themselves without the need of human contact and are able to sense their surroundings carefully manoeuvring to avoid any crashes improving safety and efficiency. Currently in 2018 driverless cars are being tested not only in facilities but are being introduced to Australian roads around urban areas coming into contact with pedestrians and other vehicles too, and although it can be dangerous not fully knowing how a car will react with a specific scenario, it is a necessity to test them on real roads to ensure they can operate safely in the future. Although driverless cars are already being operable, they are still not 100% safe as proved by the tragic event when a self-driving uber hit a pedestrian crossing the road late at night in the US. The autonomous vehicle industry took some setbacks from the incident. Technological developments that make driverless cars possible are radar and camera sensors that collect data about the vehicles environment, however it’s the software in the onboard computer that decides what action the vehicle should perform, and because each company uses different software, some software perform better than others making them more safe and reliable. With the implementation of driverless cars in the coming years, we can expect to see them on our road, driving passengers to their destination, and with new technological advances in the future driverless cars will be improved with newer software to ensure they are as safe as possible, eliminating any chance of a fatal error resulting in death. The more testing that is done the more data companies will be able to gather about how vehicles react to different situations and environments, how and why their decisions are made and compare them to how a human would react. Data which can be used to improve driverless vehicles. In the near future it is highly likely that we will see driverless cars commuting everywhere.

**What is the likely impact?**

The coming of driverless vehicles will change the world in so many ways. The potential impact will be enormous. People will no longer even need to learn how to drive, uber/taxi/bus drivers will become redundant as the vehicles will be driving themselves. Mail and package delivery workers’ jobs will be much easier as they will only need to deliver packages and mail. Waste collectors will only need to press a button to pick up and put down the garbage bin. There will be less road accidents caused by humans, driving will be more efficient. More changes that may occur could be change in infrastructure to roads to make them more suitable for driverless cars. This could create new jobs that require software developers and hi-tech mechanic skills. Parents will no longer need to drive their children to school in the morning or to sports practice of extracurricular activities or events, thus however not everyone will have a self-driving car. There will be people who are sceptical of the idea of trusting their life to an autonomous vehicle and would rather be in control when they are in a car. This may cause issues where humans driving will make errors that autonomous vehicles cannot anticipate and will not know how to react. Having both driverless vehicles and driver vehicles on the road may pose a danger. If people are given an option, there will always be those who will refuse to adapt and switch over.

**How will this affect you?**

For me personally, I wont need to learn how to drive or get my P’s anymore, which will save me a lot of time since I find driving to be tedious and boring, I wont need to rely on my parents/friends to drive me anywhere therefore I won’t need to bother them asking them to drive me to the shops, movies or arcade. With the implementation of driverless vehicles I could potentially drive to the city for class in the morning and sleep in the car for the duration of the ride or do something else productive like read a book. Furthermore when I go on long distance holidays with my family my parents wont need to take a rest every “X” hours which will make arriving to the destination take less time, meaning more time to enjoy the holiday. Having a car drive itself would mean smoother car rides, meaning my motion sickness would decrease or even disappear benefitting me. However I would also be extremely paranoid and nervous whenever I get into a self-driving car. I might not trust it for the first few months it is released to the public, because machines can always make errors and miscalculations. I would sceptical about it as it’s a huge jump in technological advancements, thus mistakes can easily occur, especially when the scale is this large. Driverless vehicles would affect me both positively and negatively.

References

ABC News. 2018. *Driverless cars are now tested on our roads, so should we be worried? - ABC News (Australian Broadcasting Corporation)*. [ONLINE] Available at: <http://www.abc.net.au/news/2018-03-23/should-we-worry-about-driverless-cars-being-tested-on-our-roads/9569056>. [Accessed 25 April 2018].