

Mr. Seba describes disruption as “when a new product or service helps create a new market and significantly weaken, transform or destroy an existing product, market, category and industry.” He emphasizes the future with electric and autonomous vehicles, meaning self-driving without a steering wheel and pedals. The market that would be destroyed is the new car and used car industry. As a result of self-driving cars, individuals would no longer have the need for cars with internal combustible engines (ICE) because the market for ICE would significantly drop. Also, the need for oil to fuel ICE cars would also drop significantly because the new cars are powered by electricity. Electric vehicles are drastically cheaper and energy efficient in the long run compared to vehicles we use today. For example, “It costs 15,000 dollars to fill up a (gas) Jeep Liberty over 5 years. An electric Jeep Liberty would cost 1,565 dollars in electricity.” Electric vehicles are also cheaper to maintain, a regular car has approximately 2000 moving parts while the electric vehicle only has about 18 parts. The disruption Mr. Seba describes seems entirely reasonable. If we think about how fast the cellular phone industry has changed over the past ten years, where could we be in the next five to ten years with electric vehicles and autonomous cars?

The two biggest problems that could be encountered by self-driving cars and electric vehicles are technological issues and a lack of proper funding. Is the correct technology available today to make autonomous cars feasible? I feel as though we do not have the correct technology as of November 2017 to keep up with the needs of an electric or autonomous vehicle. More research needs to be completed in order to adequately understand what kind of technology needs to run these vehicles. Also do we have the necessary funds to create enough electric vehicles for our society? At this time, electric vehicles are expensive compared to ICE vehicles, because of how new they are to the market. I feel as though, once they become mass produced and the

general population has access to them, then prices will plummet and so will begin the disruption of ICE vehicles.

If self-driving vehicles and electric vehicles do become a product in the next few years, numerous environmental issues will find a solution. Air quality would improve, not overnight but one could see a drastic change over a five to ten-year period. The levels of dangerous particles in the air would nearly disappear. Also, we find many of the parts used to make ICE cars end up in landfills to only pollute our waterways. Potentially parts used for electric and autonomous vehicles could be recycled in some way. Drilling for oil in our oceans would no longer be a necessity because electric vehicles no longer need fuel to power the engine in the car. In this way, species in the ocean will be protected.

In his book, "Clean Disruption," Mr. Seba discusses market curves and business model innovation to further bolster his points about electric and autonomous vehicles. Although the car industry we have now, would suffer tremendously it would benefit our society as a whole if we are able to make the switch to a cleaner, more efficient mode of transportation.