

When considering the future of cars and safety on the road, automation of cars is a viable option. With the development of driverless cars gradually being introduced to reality, the question of their safety and reliability raises debate. Automated cars have numerous problems and flaws, but the benefits are significant and helpful, and they can be used to replace drivers in society today.

While driverless cars have numerous advantages, the problems and deficiencies must be considered and understood. Large companies such as Google are developing software and pathing systems for use in automated cars. Despite relative innovation and progress, issues surface due to human behavior on the road. Researchers explain a significant challenge is assimilating automated cars into a society where "humans don't behave by the book" (Text 2, line 14). Humans are prone to error and individualism; maintaining an absolute medium of law-abiding and rule-considerate drivers is near impossible. Incidents have occurred in which automated cars were unable to adapt to a human's misjudgment. In one such incident, during a pedestrian crossing, a driverless car slowed down to brake and this resulted in a crash when it was hit by the human driven car behind it (Text 2, lines 5-6). In another situation a driverless car "couldn't get through a four-way stop because its sensors kept waiting for other (human) drivers to stop completely and let it go" (Text 2, lines 9-10). Due to the automated cars being engineered to follow rules so strictly, it is difficult for them to compensate for more

unique and unwritten scenarios. As John Lee, an industrial and systems engineering professor who specializes in driver safety explains, humans "make eye contact" and "agreements about who has the right of way" – but "where are the eyes in an autonomous vehicle?" (Text 2, lines 55-59). Such failure to adjust to human behaviors is a flaw that cannot be overlooked for the danger it poses to others on the road.

Despite automated cars having numerous flaws, this technology should be implemented into society to replace human drivers. Although automated cars are prone to glitches and may cause accidents, Google claims there have only been 16 crashes since 2009 and in "every single case... a human was at fault" (Text 2 lines 27-28). Indeed, driverless cars have been in accidents, but only as a result of external factors. In fact, according to insurance law Professor Robert W. Peterson, "There is every reason to believe that self-driving cars will reduce frequency and severity of accidents" as "9.0% of accidents today are caused by driver error" (Text 1, lines 34-37). Thus, as long as automated cars maintain their effectiveness of avoiding accidents, the number of crashes would be drastically lower than if drivers were still on the road. With 33,561 people killed in crashes in 2012 according to the National Highway Traffic Safety Administration (Text 4, line 3), and only the 16 driverless crashes since 2009 as previously mentioned, the comparison is significant. Ideally, automated cars would remove human error from the road, meaning the

only reason for accidents would be the malfunctions of the cars' algorithm and computerized system. Computers are not flawless; however, humans tend to be more flawed.

Not only are safety features a benefit, but the efficiency of the driverless car is another aspect that may better society. With accidents rarer, heavy steel and airbags are unnecessary. Automation and programming eradicate the need to go searching for a parking spot, and flights can be drastically cut back if cars can drive you from city to city (Text 4, lines 16-20). This efficiency leads to yet further benefits such as having time to pursue other activities, such as reading, while "driving" and experiencing a reduced stress level (Text 4, lines 23-24). When heavily stressed, humans tend to make mistakes. This factor is taken out of the equation with the driverless car, and as a result, far fewer accidents are bound to occur. Automated cars also have potential to better the environment. Robin Chase, CEO and founder of Buzzcar, says, "These vehicles should practice very efficient eco-practices, which is typically about 20% better than the average driver" (Text 4, lines 28-29). If used en masse, and shared, need for fuel and charging of cars would be decreased as less would be used and automated cars can calculate how to take the best path and save energy and time.

Automated cars contain many advantages and disadvantages. However, the advantages far outweigh the disadvantages. It is hard to argue

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against the reduced accidents, and overall benefits to one's personal well-being as well as to the environment. These driverless cars should definitely be implemented into our society and should become the "norm" of the future.

Anchor Level 6–A

The essay introduces a precise and insightful claim, as directed by the task (*When considering the future of cars and safety on the road, automation of cars is a viable option and Automated cars have numerous problems and flaws, but the benefits are significant and helpful, and they can be used to replace drivers*). The essay demonstrates in-depth and insightful analysis of the texts, as necessary to support the claim (*Indeed, driverless cars have been in accidents, but only as a result of external factors and If used en masse, and shared, need for fuel and charging of cars would be decreased ... and automated cars can ... save energy*) and to distinguish the claim from alternate or opposing claims (*While driverless cars have numerous advantages, the problems and deficiencies must be considered and understood*). The essay presents ideas fully and thoughtfully, making highly effective use of a wide range of specific and relevant evidence to support analysis (*With 33,561 people killed in crashes in 2012 ... and only the 16 driverless crashes since 2009 ... the comparison is significant and Automation and programming eradicate the need to go searching for a parking spot, and flights can be drastically cut back*). The essay demonstrates proper citation of sources to avoid plagiarism when dealing with direct quotes and paraphrased material [(*Text 2, lines 55–59*) and (*Text 1, lines 28–29*)]. The essay exhibits skillful organization of ideas and information to create a cohesive and coherent essay, with an opening paragraph that introduces the claim by favoring the use of automated cars and references the counterclaim, followed by one paragraph that addresses *issues that surface due to human behavior on the road* and two that rebut the *flaws* by emphasizing the benefits of the *safety features and efficiency of the driverless car*, ending with a reiteration of the claim. The essay establishes and maintains a formal style, using sophisticated language and structure (*Due to the automated cars being engineered to follow rules so strictly, it is difficult for them to compensate for more unique and unwritten scenarios*). The essay demonstrates control of conventions with essentially no errors, even with sophisticated language.