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STS 4600

## Socio-technical Synthesis: Implications of Self-Driving Uber Accidents on Society and Technology

In recent years, self-driving technology has gained significant attention, particularly in the transportation industry. However, with the emergence of this technology, there are also concerns regarding its safety and ethical implications. The recent accident involving a self-driving Uber that killed a pedestrian in Arizona is a tragic example of these concerns. This event highlights the need for interdisciplinary education that focuses on the intersection of technology and society.

My technical work and STS research explore the implications of self-driving technology for engineering and society. My technical work focuses on the development of a self-driving Uber prototype that takes into consideration the safety of pedestrians and the need to strive for the integration of autonomous vehicles into society. The development of this prototype involves the integration of mechanical, electrical, and artificial intelligence (AI) engineering. The goal of this prototype is to promote the safe and efficient use of self-driving technology in the transportation industry.

My STS research, on the other hand, focuses on the social and ethical implications of self-driving technology. Specifically, my research examines the relationship between self-driving technology and society, and how it affects the role of engineers and the responsibility of educational institutions. My research employs Utilitarianism to analyze the interdependence between technology and society. I argue that self-driving technology calls into question the

validity of progressing autonomous vehicles for overall better results than the status quo in terms of safety and the ethical dilemmas it poses.

The combination of my technical work and STS research provides a comprehensive understanding of self-driving technology and its implications for engineering and society. The development of the self-driving Uber prototype allows me to gain practical experience in the integration of mechanical, electrical, and AI engineering. At the same time, my STS research allows me to examine the ethical and societal implications of this technology and the importance of interdisciplinary education in addressing these concerns.

The integration of both the technical work and STS research creates a valuable opportunity to promote interdisciplinary education. This integration can be used as a teaching tool to educate students about the importance of interdisciplinary education and the impact of technology on society. By exploring the ethical and societal implications of self-driving technology, students can gain a holistic understanding of the role of engineering in society and the responsibility of engineers to consider the broader implications of their work. This approach provides a unique opportunity to develop a comprehensive understanding of self-driving technology and its implications. Additionally, it highlights the importance of interdisciplinary education in addressing these concerns and developing a new generation of engineers who are equipped to address the complex ethical and societal implications of emerging technologies.