

Case 14: Driving People Away

Artificial Intelligence (AI) is generally thought to refer to software-guided machines that respond to stimulation in ways that seem almost human, without the human capacities for contemplation, judgment, and intention. Researchers indicate these software systems make decisions normally requiring a human level of expertise and operate in a seemingly intentional, intelligent, and adaptive manner. Since AI does not require sleep, food, or other human essentials, there are obvious economic benefits to be realized through it, and PricewaterhouseCoopers estimates that such systems could increase global gross domestic product by \$15.7 trillion, or 14 percent, by 2030.

According to the Brookings Institute's report of April 2018, "How artificial intelligence is transforming the world," AI is not a futuristic vision but is already being integrated with and deployed across a variety of economic sectors. In the area of autonomous vehicle technology alone, \$80 billion was invested between 2014 and 2017. Ride-sharing companies, such as Uber in the United States, Daimler in Great Britain, and Didi Chuxing in China, are very interested in autonomous vehicles and their future potential. On the other hand, some foresee a dystopian future of mass unemployment and cite reports such as the 2013 "The Future of Employment: How susceptible are jobs to computerisation?" by the Oxford Martin School that predicted that 47 percent of jobs in the United States could be under threat of automation by 2033 due to advances in AI technologies.

Interesting debates are erupting around Uber's impact not only on the traditional taxi industry but on the estimated one million drivers in its own ride-sharing business after it recently inked an agreement with Volvo to purchase 24,000 autonomous cars. Autonomous vehicles use numerous advanced technologies, including automated vehicle guidance and braking, lane-changing systems, use of cameras and sensors for collision avoidance, AI to analyze information in real time, and the use of high-performance computing and deep learning systems to adapt to new circumstances through detailed maps. The technology behind Uber's driverless cars has not yet been perfected and the ride-sharing company suffered a setback when one of its autonomous cars hit and killed a pedestrian in Arizona in March, 2018. The accident brought an immediate halt to the testing and launched investigations into what went wrong with the technology. Given the concern for safety in technology and the demand for convincing answers, this accident alone could slow AI advancements in the transportation sector.

Case from the 2019 National Intercollegiate Ethics Bowl



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