

Smart Transportation Update: Revolutionizing Today's Office

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Abstract

The news in 2017 and 2018 describes how drones are delivering blood across barren landscapes to hospital surgeons saving hours or days of torturous or flooded mountain roads, or, across a busy city landscape of bumper-to-bumper traffic. Smart transportation technology seems to allow cars to be driverless or the car's artificial intelligence (AI) software sensors will force your car to stop before hitting a person or object. The AI can parallel park your car.

Truck drivers are facing a new kind of dilemma in losing their jobs. Following the recession of 2008 trucking companies and truck drivers lost their jobs or quit the business. There was a combination of factors at work. One factor was the high cost of diesel fuel, doubling in many cases. The second factor was that most of truck drivers were from the Baby Boomer generation; they retired. By 2010, over 10,000 small to medium sized trucking companies had gone out of business. That impacted the transportation and logistics industry, retail to wholesale businesses. The impact created a positive turn of events for the rail cargo industry however. The rail industry jumped in and started making a profit for the first time in decades in long-haul cargo container movement. Today, the double-stacked rail cars still dominate long-haul cargo delivery compared to the truck driver.

In 2018, the trucker faces a new threat from driverless trucks. Trucking companies are investing in autonomous driver tractor trailers to move tractor trailer loads of goods from ports to warehouses or retail stores. An impact of such smart technology is once again a destructive force in the trucker workforce. The magnitude of the impact on truck drivers is not known currently, but the potential to decrease drivers is obvious. Compared to the impact of the 2008 recession and retirement of Baby Boomers, the result is still an assault on the profession of truck driver.

Different smart air delivery by drone technology is being explored in other countries to try them out before the Federal Aviation Association (FAA) approves them for use on our crowded airspace. Will this AI technology be a factor in decreasing accidents, be a factor in saving lives? Or, will drone delivery be another positive and destructive force for labor? Will this smart technology replace short haul truck drivers or Uber-type emergency service deliveries of medical supplies to hospitals and pharmaceutical warehouses?

How will neuroscience change the Internet of Things (IOT) and AI landscapes? Will wearable communications devices for solving problems impact the education system in basic concepts of critical thinking and decision making?

Combine all these technology patterns and what might be the effects on our life and livelihood and public policy? This presentation and final research paper will review the trends that may affect retirement, job identification, a possible Luddite movement, and retraining of the labor force. Major items discussed will be at least:

- Self-driving cars and trucks could upend the public and private transportation arena and displace millions of jobs.
- Instead of changing what we teach, maybe we should change when we teach.
- Lifetime skills are not remaining constant.
- Drone delivery will decimate grocery stores.
- These technologies emerging will become creative destruction.
- Reality will outstrip of imagination.
- Supply chain innovation.
- Education and training approach.
- Organizations need to prepare for the unknown unknowns.
- Electricity is a supply chain and transportation and distribution problem.
- Online education is a supply chain provider of knowledge and skills using a communications network, a communications highway.
- How can we anticipate the impact of technology?

The societal implications of smart technology loom large on a short human-history horizon. The technology is important to our improved living and lifestyles. But the uneasiness that is being felt and discussed and written about from opinion pieces in the news, to peer reviewed research articles to science fiction stories is important to discuss – now.