TEAMSTERS CANADA SUBMISSION

TO THE SENATE TRANSPORTATION COMMITTEE

AUTOMATED AND CONNECTED VEHICLE STUDY

ON TUESDAY OCTOBER 24, 2017

Presenters

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Automated Driving and Connected Vehicles are one application of Artificial Intelligence (AI) and Robotics. AI and robotics will be the largest disruption and dislocation of workers since the industrial revolution. The use of AI in many sectors will have consequences; over a period of time it will replace oncologists, radiologists, lawyers, engineers, financial planners and many more occupations, higher paying careers are threatened, not only truck drivers.

Robotics is not new to the industrial sector. Robots use in the auto industry for example of replacing high wage earners in a high value added job. What is different today is that robots are cheap. Robots can replace low income workers with a short payback period. These applications will become common place in a short period of time. No work, no wages, and who will buy goods and services and pay taxes?

There are about 900,000 Canadians working in the Transportation and Warehouse sector. It is a diverse sector with more than 600,000 in trucking and perhaps 250,000 of those in long distance trucking. Trucking work in many sectors including construction, dairy, film, courier among others. Driving as an occupation includes busses, taxis and occupations that include driving as part of the skill set needed to earn a living.

Even if 10% of those jobs are lost it could mean 100,000 jobs lost in the trucking and warehousing sectors alone. And no, it is not going to be like other times when people just found other jobs. Jobs will be lost in many sectors at the same time.

Teamsters Canada submits that the impact will not only be on the future of the thousands of professional truck drivers in this country, but also the inevitable overall safety of the public who travel our roads.

In John McCann's 21 years in the union he has seen his share of automation being introduced into our workplaces. Our members understand that change is necessary and sometimes inevitable. The issue of new technology is not something foreign to the Teamsters.

Automated vehicles and artificial intelligence with regards to trucks, to us, is a complete game changer. Many Teamster members in Canada work as drivers in some capacity, so you can imagine that the thought of automated vehicles is creating a lot of uncertainty.

The technology will affect the workforce and it will impact the general driving population.

Imagine a 53-foot tractor trailer loaded with 80,000 lbs of freight barrelling down a 400-series highway at 105 kms with the operator, not a professional driver, relaxing in the bunk. This was witnessed on October 25, 2016 as Uber tested its automated driverless truck called "Otto" as it did a 125 mile (201 kms) run to deliver some beer all the while the driver, with his seat turned, relaxed as the truck went down the road.

It takes almost 600 metres for that same truck to come to a complete stop in ideal road conditions. This is something the proponents of automated vehicles, do not want you to know or consider, but something that we must all consider as this new technology moves forward.

Tests under ideal conditions do not reflect the Canadian experience. I have yet to see any studies where tests on automated vehicles have been conducted during winter conditions and poorly maintained roads.

The guidance systems of automated vehicles are set up so that the sensors read the lines in the roads and use cameras to alert the vehicle of danger from the front or behind. However, what if

the lines on the roads and sensors are covered with snow or ice as is a normal condition during Canadian winter? Will the system fail, will the operator be alerted in time to take corrective action? Will the driver be awake?

These, and many more questions need to be answered long before any approval for full implementation of driverless autonomous vehicles can ever see the light of day.

There is also the matter of artificial intelligence being used to operate vehicles remotely from some office miles away. Then there is the ever-present threat of hacking the system of one, or many, of these remotely operated vehicles to utilise this massive piece of machinery for sinister purposes. We have witnessed numerous attacks where trucks have been used, from those in Barcelona and Nice to the bombing attack on the Alfred P. Murrah Federal Building in Oklahoma City. This is something we never want duplicated but we must all be very aware of and by allowing remote access to large vehicles we are opening them up to that potential.

What happens to displaced workers? These are jobs that have provided good wages, benefits and pensions allowing for a great quality of life for many thousands of workers and their families.

 Could these skilled jobs be replaced by "operators" making minimum wages and no benefits or pension? I don't believe that's what any of us want and I trust the right thing will be done to assure it doesn't happen. Then there is the issue of that displaced drivers pension and retirement benefits? As fewer licensed drivers continue working and participating in union/company benefit and pension plans there is a greater possibility that those very plans could falter due to lack of funding,

Teamsters Canada believes the study of automated and connected vehicles is not just a technical study, it must examine the social and workplace consequences of technology adoption.