The National LTAP Association Conference

By Emily Wilder, Kansas LTAP

Emily Wilder represented Kansas LTAP in the National LTAP Poster Competition with her poster on MACRO. Her poster took Second Place.

On August 12-15th the National Local Technical Assistance Program Association (NLTAPA), the Tribal Technical Assistance Program (TTAP), and the National Transportation Training Directors (NTTD) hosted a joint conference in Stowe, Vermont. The conference focused on Training Tips and Tools, Professional Development/Communication, Innovation, and Safety within the context of the transportation field.

The Keynote Address featured Dr. Eric Jackson, from the University of Connecticut Transportation Safety Research Center, and Michelle Noch, with the Intelligent Transportation Systems Professional Capacity Building housed in the USDOT. They presented "Connected and Automated Vehicles (CAV): The Future of Transportation and the Workforce Skills and Competencies Required to Succeed." I found this presentation to be especially interesting due to the far-reaching implications of CAVs. Let me share some of the information.

Connected and Automated Vehicles are where the world is going, but how long will it take to get there and what does that mean? Dr. Eric Jackson thinks we could have fully autonomous vehicles (no steering wheels or gas pedals) by 2060. This change, he said, could result in a significant drop in the number of traffic crashes. It is currently estimated that 90 percent of traffic crashes are caused by human error. So, take the human out of the equation and you can expect traffic crashes to drop by about 90 percent. However, the total automation of vehicles comes with a wide array of concerns that go beyond how they can make it a reality.

For example, if all the cars are programmed the same way, then they'll drive in the same way. This means roads will be worn down faster due to consistent stress on certain sections of the road, unless the cars are programmed otherwise. The autonomous vehicles could also communicate with each other, which would reduce the need for traffic signals and road signs, but only if everyone had an autonomous vehicle. Would it then become mandatory?

Currently, test vehicles with limited autonomy are being programmed to travel city roads based on pavement markers. This means that the vehicles wouldn't be able to travel on gravel roads or unmarked roads. It also raises the question of how often the pavement markers would need to be maintained or what happens if they're covered (i.e. snow)?

Entire industries could also be affected by the change. Consider the injury lawyer, car insurance companies, the delivery driver, the trucker, or even Waffle House where the truckers eat! And what about security? If all the cars are entirely electronic, and connected to each other and city grids, then there's the danger of kidnapping, murder, and terrorism being committed by someone behind a computer.

Some of this information made me feel like I went skiing down a slippery slope and fell off the mountain (maybe because the conference was held at a ski resort), but it actually doesn't have to be that scary.

The introduction of fully autonomous vehicles will certainly change our world and that could be for the better. According to the National Safety Council, around 40,000 people died each year from 2016-2018 with an additional 4.5 million people seriously injured each year. Autonomous vehicles could reduce these numbers to 4,000 and 450,000 - saving 35,000 lives and millions of injuries each year.

Additionally, it could reduce the strain on public transit while allowing even greater access to communities. With autonomous vehicles, public transit agencies could significantly cut their personnel costs and thus the overall operating budget. With the reduced expenses, more people would be able to access convenient and reliable transportation.

It's an interesting topic, with a lot more research and work to be done.

Speaking of innovation, on behalf of Kansas LTAP, I submitted a poster on the use of Macros to save time on administrative tasks to the annual poster competition at the conference. Creating a Macro is a way to automate repetitive steps or processes in Microsoft Office or Outlook. It requires basic coding and is an innovative way to increase efficiency, reduce time, and produce consistent results. Our poster won second place overall!

And no, the irony of automation is not lost on me.

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