

## Local View: Driverless cars: An accident waiting to happen

Richard L. Schmeling

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Lincoln residents should be aware that the so-called "autonomous car" technology is flawed, dangerous and years away from being able to safely implement, if ever.

Predictions by Randal O'Toole of the Cato Institute and others that this system will eliminate the need for public rail and transit expansion will turn out to be so much hot air down the road.

The reality is that (1) autonomous cars being tested currently have dangerous flaws. A recent incident reported was on Valentine's Day this year when a computer-driven car sensed an object in the road ahead, thought it could change lanes and smashed into the side of a transit bus in the lane next to it. There have been other incidents in which the human driver prevented collisions.

(2) A whole new set of laws needs to be in place for driverless cars to become a part of the transportation system. If a driverless car runs a red light, who gets the ticket? Who appears in court and who pays the fine or goes to jail in the case of motor vehicle homicide? Who will be assessed points for traffic violations? Who will provide liability insurance? Who will you sue in court in case of an accident? How will the driverless cars be insured? Who owns the cars and pays the registration fee and wheel tax? Will the laws require that a licensed driver be in each car to take over or can all the passengers be non-drivers? Will Nebraska require all driverless cars to have over-ride controls so that a human can take over in case of computer error? (The Google car has no steering wheel, brake or accelerator pedals.)

(3) Separate and apart from the legal issues, there are the reliability issues. What happens when a computer fails? Will a solar flare, weather or electromagnetic problem "fry" the computer? Tests in California with the driverless cars (so far with a driver in them able to over-ride the computer) show that the lidar sensors do not work in heavy snowstorms, fog, heavy rain and are confused by the glare from wet pavement. The Valentine's Day incident resulted from the driverless car's sensor shooting to the side failing to detect the transit bus in the next lane.

Will we ever be able to program a computer to make a wise decision when confronted with a new situation? Suppose the sensors detect two objects in the road ahead - a grocery cart loaded with groceries and a baby stroller with a child in it. The car can't stop in time and will hit one of the obstructions. Will it be smart enough to choose the grocery cart and not the baby stroller?

Some driving decisions involve ethical questions. Suppose a driverless car sees a crowd of 10 or more people blocking the street and can't get around them or stop in time. There is a thick

concrete wall to the right side. Will the computer turn the car into the wall, risking injury and possible death to its riders or simply bowl on through the crowd and hope for the best?

(4) Then there is the whole issue of computer hacking. Even our conventional cars have mini-computers which control various functions. Recently hackers were able to hack into Jeep Cherokee mini-computers and disable various functions like steering when the Jeeps were in motion. What will happen if a hacker is able to shut down 600 driverless cars on a multi-lane city street and they all stop suddenly blocking all lanes? Are Islamic terrorists smart enough to use the driverless cars to create a massive traffic jam? You bet they are!

(5) There is also a proposal for driverless semi-trucks and I don't even want to think about an 18-wheeler coming across the median on I-80 and coming at me head-on. Interestingly, Bay Area Rapid Transit, a rail commuter system operating in the Oakland area for many years, has computer-operated train control. During a test with no motorman aboard and fortunately no passengers, the computer failed and the train failed to stop at a station where the track the train was on dead-ended. The train crashed into the station. From that point on, all the trains have a human motorman aboard with a manual over-ride control.

The fact that Lincoln was not selected as a pilot city for the driverless car concept is a huge relief. I can't understand Mayor Chris Beutler being willing to make Lincolnites human guinea pigs for this immature, dangerous technology.

The auto and auto products vendors are worried. The modern trend in transportation has been to realize that "You can't pave your way out of congestion." As a result there has been a great resurgence in public transit throughout the United States.

Let's not be lulled by O'Toole and others with a private agenda to quit spending to improve StarTran, think about Light Rail for Lincoln and get cracking on getting commuter trains running between Lincoln and Omaha instead of going down the perilous path of a Jetsons-like system that is wrong in so many ways.