Drive.ai focus is on retrofitted self-driving kit for business fleets

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Credit: drive.ai

(Tech Xplore)—Drive. ai is a team to watch as the world's drivers face a

future of self-driving cars. On Tuesday Drive.ai introduced its path to support, through its technology, the commercialization of self-driving cars.

IEEE Spectrum's Evan Ackerman on Tuesday wrote that "Drive.ai is touting a retrofit kit for business fleets that can imbue existing vehicles with full autonomy."

Drive.ai is a Silicon Valley startup. Former lab mates at Stanford University's Artificial Intelligence Lab got the ball rolling. The group leverages its knowledge of deep learning.

Drive.ai has no interest in building an actual, self-driving car, said Danielle Muoio of *Business Insider*. "Rather, as co-founder and president Carol Reiley told *Business Insider*, the start-up plans to sell 'the brains of the car.'"

What about this kit? *IEEE Spectrum* interviewed co-founder and president Dr. Carol Reiley: "So, select partners that are interested in delivery of goods or delivery of people. Existing vehicles come into the Drive.ai factory, we add the roof rack which has the sensors and HRI component and software, and we work with these partners to drive on a route-based situation. We see this as a safe, logical first step for self-driving cars."

A key feature about the group's technology is the HRI (human-robot interaction) component. This, said Ackerman, is in the form of a big display, capable of having the car communicate with people. And this, he also said, is a feature that autonomous cars really need.

"Not only will autonomous cars actually use their turn signals, but with the ability to communicate more complex concepts, they could even politely ask to merge, provide useful information like "slowing for

accident ahead," or even apologize if they cut you off, which they probably won't ever do."

Sameep Tandon, CEO and co-founder of Drive.ai, said in the company release that deep learning was the most effective form of artificial intelligence, and the one best capable of "responding intelligently to the infinite situations cars face on the roads."

We are into the first generation of this new change in transport. Ackerman said, "Once roads are full of autonomous vehicles, and vehicle-to-vehicle communication is done wirelessly, it's not going to be as big of an issue." Now, however, we need a focus on HRI in the first generation of commercial autonomous vehicles, as "there's going to be a significant transitional period between mostly human-driven cars and mostly autonomous cars."

Will Knight in *MIT Technology Review* noted remarks by Bryan Reimer, a research scientist at MIT who studies automation and driver behavior.

Reimer said too little attention has been paid to human behavior by those who are developing automated driving systems.

Drive.ai's product offering will consist of a retrofitted self-driving kit for existing business fleets. There will be sensors, a roof-mounted exterior communication system, and in-car interface, powered by deep learning software algorithms.

The company's initial market approach will focus on proving the technology with route-based vehicle fleets, in industries such as freight delivery, ridesharing, and public/private transit, according to the company release.

How will this work out? Will Knight explained in *MIT Technology*

Review. "The company's first product will be hardware required to retrofit a vehicle so that it can drive itself. It will be offered to companies that operate fleets of vehicles along specific routes, such as delivery or taxi services. Besides sensors and systems for controlling the car, this will include a roof-mounted communications system and a novel in-car interface."

More information: www.drive.ai

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