Ford casts focus on driver behavior, calculates scores

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A video about the Driver Behavior Project was posted earlier this month. The steering wheel says Ford so that gives you an idea about who is in the project driver's seat—Ford.

We are thinking about a driver profile, says the Ford presenter, to really focus on driver behavior. He said his team thinks there is a lot of opportunity to help improve that behavior.

The video meanwhile shows a car stopping as an elderly lady pedestrian, hampered in speed by a shopping cart in one hand and a cane in another, safely passes in the road.

The project team is thinking in terms of scoring, rewards and insights. A prototype driving app helps drivers to achieve goals, similar to what they might use as a companion app for exercising or losing weight.

To collect data for the project, the team went out and recruited 43 Ford Fiesta drivers in and around London. The present shows a plug-in device (PID), the unit they used to collect the data.

Of interest, for example, are pedal position, accelerator, brake pressure and steering wheel angle. Richer data through interviews with the drivers was gathered too. Ford made use of the company IDEO, brought on board the project to research what a driver says, thinks, feels and does.

Interestingly (but maybe of no surprise to exasperated co-passengers), there emerged a significant difference between how people think they drive, and how they actually do drive.

All in all, Ford is making an interesting attempt to look at driver behavior. Ford provided some details about what they did:

"Over a four-month period, plug-in devices gathered data from more than 40 Ford Fiestas, driven by volunteers in London, to record actions that each driver took over 160,000 kilometers and more than 4,000 hours. This included detailing the slightest turn of the steering wheel and harsh braking, as well as time of day, weather, and road history."

The drivers get a personal driving score.

The app in detail: It lets the driver see how different driving behaviors affect the score, and offers insights to help improve, such as driving in the correct gear. It calculates a score for each trip. The score is based on the driver's interaction with the vehicle, judged by data received on accelerating, braking and steering. The score changes according to results of each journey, and a graph shows the trend over time, so drivers see on which days their scores were higher or lower.

If the drivers stand to gain by learning their driving behavior and finding out how good they really are, there is something invaluable in it for Ford, and that is, understanding the psychology of driving.

Ford's data scientists and transport data experts, Transport API, are to analyze the data to get further insights.

There is strategy suggested here. The company stated that it is "currently expanding into both an auto and a mobility company; as such the company is aggressively pursuing emerging opportunities through Ford Smart Mobility – its plan to be a leader in connectivity, mobility, autonomous vehicles, the customer experience, and data and analytics."

Moreover, the University of Nottingham enters into this project. The project team also is studying how driving affects the physical and emotional states of a group of volunteers at the university. Volunteers are presented with various driving situations. They do this in a driving simulator and real world driving. Their heart rates, eye movements and brain patterns are monitored. The research highlights when drivers are nervous or stressed, such as in heavy traffic, or when larger vehicles reduce visibility.