"MR. SMITH, CARS USED TO HAVE STEERING WHEELS, RIGHT?!"

Effectiveness and necessity of driver training for Automated vehicles

Problem description

Automated vehicles (AV) are expected to gradually increase in the coming years. At the same time, there are concerns about the ability of humans to properly control such vehicles. Initially AV's will support drivers, while drivers will still be responsible to monitor and ultimately retake control if and when required. Much research exists that doubts a drivers ability to do so. Therefore, it may be necessary to have specific driver training for the use of AV's, while the effectiveness of such training is unknown at this time. Will simply reading the manual suffice, or would extensive training be indispensable for safe driving?

Objectives & Assignment

The objective of this project is to evaluate the effectiveness driver training for AV use and to analyse the necessity of such training for safety and traffic impact. To achieve this, the use of driver simulator experiments will be required to evaluate how drivers cope and what the effectiveness of training may be. Prior to this, the project will require literature research to gain an understanding of current practice and issue in regard to AV and driver interaction with AV's. An experimental setup should be constructed and following the experiment, analysis of the results should be performed to come to conclusions regarding the main project objective.

The project is related to the Meaningful Human Control over Automated Driving Systems project. And external support by relevant partnering organisations, such as the CBR, RDW, SWOV, etc., is available.

This Master thesis may be able to include an internship at one of the partnering organisations.

Research group

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External support

TBD

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