Automated driving and personality traits: one size fits none?

Problem description
Automated driving systems (ADS) are becoming more and more prevalent in today’s world. This opens the door for more detailed investigation into how we can adapt these systems better to the human user. How do we drive with ADS? But perhaps more importantly: How does our personality influence how we drive with ADS? What will it say about how we take over from such a system? And what will it say about how we let the ADS take over control of our car?

Objectives & Assignment
The objective of this project is to assess the effect of personality traits in ADS to the human drivers’ performance, and what the effects are during a take-over request to and from the ADS. Assessments will be made regarding take-over time, brake reaction time, and similar metrics, and also regarding scanning behaviour and psychophysiological responses, such as heart rate. There will be a minimum of 100 participants recruited (by another student), who will be performing an experiment in one of our driving simulators.

Your task will be to execute the experiment with the participants in the driving simulator, gather and analyse the various data, and present the results and conclusions of the experiment in a paper of publishable quality.

The project is related to the Meaningful Human Control over Automated Driving Systems project.

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