Anthropomorphism in Highly Automated Vehicles

Open Bachelor/Master Thesis

Background and Research Goal

Trust is a major factor in relation to acceptance of Highly Automated Vehicles (HAVs). A positive correlation has been suggested between increased trust and the use of anthropomorphic features in in-vehicle interfaces. Most work in this area deals with a vehicle agent/avatar that takes on the appearance of a human. The aim of this work is to investigate what other anthropomorphic features can be used in in-vehicle interfaces. These identified features should be implemented prototypically in a VR environment with Unity. Subsequently, a user study should be conducted to evaluate whether those identified features also have a positive influence on trust in HAVs.

Exemplary anthropomorphic features are physiological signals such as the heartbeat, which could be realized by ambient light, or a nudge to the driver from the vehicle, realized through an actuator in the seat.

Based on bachelor/master level the scope is adapted.

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Images:

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