



Predicting User Interactions in Vehicles

Open Bachelor/Master Thesis

Background

By predicting the interaction passengers might want to perform, the vehicle can anticipate their intention in a specific situation. This can help streamline UIs and input/output modalities to support the intended interaction effectively. Such interaction/intention prediction may be based on a machine learning approach that fuses several physiological sensor inputs (e.g., heart rate, eye movement, or skin conductance) and the state of objects in the vehicle environment (e.g., points of interest, parking spots, yaw-rate, velocity, or temperature) into a single prediction.

Research Goal

This thesis aims to create a concept for a prediction system that can be applied in vehicles. A related work research should be conducted. A virtual reality prototype should be designed and implemented that investigates several of these aspects. Finally, the defined hypothesis should be evaluated by conducting a study.

Based on bachelor/master level
the scope is adapted.

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Images:

<https://www.press.bmwgroup.com/global/article/detail/T0292196EN>

<https://www.oho.co.uk/blog/artificial-intelligence-machine-learning-deep-learning-whats-the-difference--95071/>