Challenges, Trends and Potentials for in-Vehicle Affective Computing - Traditional Human Factors Approaches vs. Machine Learning

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Affective computing has become a prominent research area for modeling driver behavior in order to design affective vehicle interfaces that ameliorate the driving experience. The recent increase of available multimodal data on affective experience makes machine learning a prominent method, and is researched side-to-side with traditional human-factors approaches for human emotion modeling. However, both approaches have methodological advantages and caveats. Through open discussions, presentations and an affective computing study-design and analysis challenge, this workshops aims to bring together researchers from both scientific perspectives and discuss transfer learning possibilities using the example of in-car affective computing.

Keywords (max. 5)

Surface Transport, Emotions, Human-Machine Teaming, AR/VR, Mobile Brain/Body Imaging

Prerequisites (if any; or none)

Everyone interested in the methodological challenges and various approaches to affective computing, especially in-vehicle, is welcome to join.

Course Schedule

Day 1 (Saturday, September 11th)	
14:00	Get-to-know game & Introduction to affective computing & affective vehicle interfaces
14:45	Post-it interactive session: exploring challenges in affective modeling (human factors or machine learning)
15:45	Coffee break
16:00	Affective computing study-design and analysis challenge
17:00	Presentation of results

17:30	Discussion

Maximum Intake

ca. 40