On sceptics and enthusiasts: What are the expectations towards self-driving cars? - DTU Orbit (25/08/2019)

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Automation in transport is increasing rapidly. While it is assumed that automated driving will have a significant impact on travel demand, the nature of this impact is not clear yet. Based on an online survey (N=3040), this study explores the expected consequences of automated driving in the Danish population. Participants were divided into three homogeneous segments based on attitudes towards automated and conventional car driving: Sceptics (38%); Indifferent stressed drivers (37%) and Enthusiasts (25%). The attitudinal segments differ in their socio-demographic profiles, current travel behaviour, interest in use-cases for self-driving cars, and anticipated changes of behaviour in a future with self-driving cars. People who are enthusiastic about self-driving cars are typically male, young, highly educated, and live in large urban areas, while Sceptics are older, car reliant and more often live in less densely populated areas. The indifferent group consists of more car reluctant people. The expected advantages of self-driving cars generally resemble the aspects highlighted in other studies, such as relief from driving tasks and the possibility of doing other things while travelling, with some variation between the three segments. Preferred future scenarios include car ownership rather than sharing solutions as well as residential relocation, which is considered by 22% of all participants as a consequence of the possibility of working in the car (13% of Sceptics; 28% of Enthusiasts). All in all, increased travel demand can be expected from an uptake of increasingly automated cars, which will be realised in the different segments with different speeds, depending on policies, business models, and proven functionality and safety.

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