On sceptics and enthusiasts: What are the expectations towards self-driving cars? - DTU Orbit (11/01/2019)

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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.

General information
State: Published
Organisations: Department of Transport, Department of Management Engineering, Technology and Innovation Management, Transport DTU, Danish Road Directorate
Contributors: Nielsen, T. A. S., Haustein, S.
Pages: 49-55
Publication date: 2018
Peer-reviewed: Yes

Publication information
Journal: Transport Policy
Volume: 66
ISSN (Print): 0967-070X
Ratings:
Web of Science (2019): Indexed yes
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 2.93 SJR 1.51 SNIP 1.675
Web of Science (2017): Impact factor 2.512
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.65 SJR 1.348 SNIP 1.715
Web of Science (2016): Impact factor 2.269
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 2.36 SJR 1.403 SNIP 1.479
Web of Science (2015): Impact factor 1.522
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 2.44 SJR 1.458 SNIP 1.835
Web of Science (2014): Impact factor 1.492
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 2.25 SJR 1.579 SNIP 1.925
Web of Science (2013): Impact factor 1.718
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 2.01 SJR 1.247 SNIP 1.64
Web of Science (2012): Impact factor 1.541