

A Focus Groups Study in the frame of the AutoDriving Project

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ABSTRACT

Automation in the road transport system is coming faster than expected and it is influencing and shaping the future of mobility. However, at the society level, particularly the addressed users of vehicles with some level of automation, very few is known at the following levels: the impact of automatic driving on traffic and how drivers will accept, use, trust and interact in traffic when driving or using a vehicle with a certain level of automation. Additionally, most of the potential users have unrealistic representations of automated vehicles, the driver's role in automation or the impacts of full automation on the road transport system. Aiming at better understanding the drivers' behaviour when dealing with automated driving, a focus group (FG) study is being carried out in the frame of the AutoDriving Project, which is a funded Portuguese research project aiming at studying the driver's activity and behaviour during both SAE levels three and four of automated driving by means of the use of a driving simulator. This experimental phase is preceded by a Focus Groups study aiming at getting the widest range of ideas and feelings about automated driving (representations, perceptions, opinions, feelings and concerns) and to understand differences in perspectives among the participants (their needs and engagement, as well as mobility choices). In order to get useful information, the session is preceded by the provision of information and examples about the limits of the technology and safety recommendations. The FG study is being carried out with three age groups of drivers (from 21 to 60+; both genders) being organised in two discussion groups by each age group. Previously, the different tools and materials for the FG sessions, such as the selection questionnaire, the consent form, the discussion guide and the remaining materials required by the FG protocol, were developed. Furthermore, the participants' selection was performed and the guidance document for the data collection was elaborated. The discussion guide is being used in each session and was designed for a one and half hour duration distributed as following: an introduction explaining the discussion topic using a short video, a set of questions to be discussed by all participants and a final synthesis to close the discussion.

As far as the FG interviews will be concluded and the transcriptions will be elaborated, the results will be analysed with appropriate software and a report will be produced. The analysis will be based on the emergence of themes from the focus groups (thematic analysis) and will provide insights for the questionnaire contents being also the foundations for the driving simulator experiments to be carried out next year, particularly the research questions, the research hypotheses and the variables to be measured. Thus, at this time, the FG interviews are being carried out and the final results will be delivered in March. Being this abstract accepted, the final results from the FG interviews will be included in the full paper to be submitted in April 2020.

Keywords: "Focus Groups", "Automated Driving", "Automation Levels", "Technology Limits"; "Driver's perceptions".