

Expectation versus reality in the acceptance of self-driving cars

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As interest in the development of automated cars increases, public and media attention has focused on the speculative benefit of having an abundance of in-vehicle work and leisure time that would otherwise be spent driving. Although initial reports have suggested that the public is beginning to embrace this idealistic portrayal of self-driving cars, these emerging expectations may not align with the current state of technology's ability to fully automate the driving task. Research published in the *Proceedings of the Human Factors and Ergonomics Society 2016 Annual Meeting* examined how the public's acceptance of automated vehicles changes when presented with a more realistic driving scenario.

According to Michael Nees, assistant professor of psychology at Lafayette College, "A lot of the public discourse to date about the capabilities of vehicle [automation](#) has been based on [unrealistic expectations](#) about the role of the human operator." He asks, "Will people accept a self-driving car that is safer than a human driver but that requires them to constantly monitor the automation in anticipation of the rare occasions when intervention will be necessary?"

Nees asked 288 adults age 19 to 83 to read either a realistic or an idealized vignette of a close friend or family member's experiences during the first six months of owning an automated vehicle. Participants answered a series of questions designed to gauge the extent to which they were accepting of self-driving cars.

Participants who read an idealized description of [self-driving car](#) ownership, in which the automation required little or no human intervention, were more accepting of self-driving cars than were those who read the more realistic scenario, which depicted a driver keeping close watch over the automation and occasionally needing to intervene.

"Current reports suggest a rush to design the human out of the driving system altogether - a goal that is ambitious but probably untenable for the time being," he adds. "Instead, a focus on designing effective cooperation and interaction between humans and automation likely will be necessary for self-driving cars to be deployed effectively. I see tremendous potential for this technology to make the roads safer for everyone."

More information: M. A. Nees, Acceptance of Self-driving Cars: An Examination of Idealized versus Realistic Portrayals with a Self-driving Car Acceptance Scale, *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (2016). [DOI: 10.1177/1541931213601332](#)

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