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"Self-Driving Cars: Road to Deployment"

Hearing of the Digital Commerce and Consumer Protection Subcommittee of the House Energy and Commerce Committee

U.S. House of Representatives

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2123 Rayburn House Office Building

Chairman Latta, Ranking Member Schakowsky, and Esteemed Members of the Subcommittee:

Introduction

Thank you for the opportunity to provide brief written testimony for this timely and important hearing on autonomous vehicle technology. The National Council on Disability (NCD) is an independent federal agency charged with providing the Administration, Congress, and other federal agencies with advice and recommendations regarding disability policy to improve the lives of people with disabilities. We applaud the Committee for examining this topic at today's hearing and we offer ourselves to the Committee as an ongoing resource as you examine this topic and consider appropriate legislative responses.

An Exciting Innovation for Everyone, But a New Era for Some

Aside from being one of the most exciting innovations in transportation since the Model T began rolling off the assembly line in 1913, autonomous vehicle (AV) technology holds tremendous promise for many people with disabilities and seniors who currently lack access to independent transportation. In our 2015 report, "Self-Driving Cars:

Mapping Access to a Technology Revolution,"[1] NCD examined the challenges and advances associated with this revolution in transportation technology and proposed directions in research and development that will most benefit those people with disabilities who are the most transportation disadvantaged because their disabilities prevent them from driving even a modified conventional vehicle. Autonomous vehicles hold great promise to advance social inclusion by offering people with disabilities independent mobility to get to school, jobs, and all places that Americans go each day. They also offer the possibility of ending the isolation that many people who are aging experience by keeping them connected with others and to activities that are often lost when we lose the ability to drive.

An Opportunity the Disabled Can't Afford to Miss

These remarkable benefits will not come at once and will not occur without cooperation among federal and state governments, research institutions, and private industry. Benefits will not emerge if the technology develops without universal accessibility for people with diverse disabilities, including intellectual and developmental, sensory, and physical disabilities. The National Highway Transportation Safety Administration (NHTSA)'s "Federal Automated Vehicles Policy," released in September of last year, constituted an important first step in establishing national guidelines for this emerging technology. NCD was particularly pleased that the guidelines stated unequivocally that, "…HAV (highly automated vehicle) systems should be designed to perform the complete driving task and monitor the environment within their ODD (operational design domain) without any expectation of involvement by a human driver."[2]

Achieving this goal would advance the nation's disability policy goals: equality of opportunity, full participation, and independent living, but only if accessibility is infused in the research and development of AVs. Without explicit inclusion of accessibility in the development of AV technologies, the potential for opportunity wanes.

As an example of the importance of forethought as technology evolves, during the early days of the Internet, and still today, accessibility for people with disabilities was not considered by web developers, and many people with disabilities experienced and even now still do experience unnecessary obstacles to information (e.g., text that is inaccessible to screen reader software, lack of captions on audio content, keyboard-only navigation). Those obstacles diminish the opportunities available to people with disabilities that the Internet presents for people without disabilities, and provides a practical lesson for AV researchers and engineers to commit now to including

[1] National Council on Disability, "Self-Driving Cars: Mapping Access to a Technology Revolution," released November 2, 2015, accessed February 10, 2017, at: http://ncd.gov/publications/2015/self-driving-cars-mapping-access-technology-revolution.
[2] National Highway Transportation Safety Administration (NHTSA) "Federal Automated Vehicles Policy: Accelerating the Next Revolution in Roadway Safety" Released September 2016, accessed February 10, 2017.

accessibility into development. If controls and interfaces necessitate one being sighted or having specific dexterities – as just two examples – the technology's design will foreclose its use by scores of people who would otherwise be among the greatest beneficiaries of the technology.

From what we've seen so far, many in the industry understand the potential that autonomous vehicles have to change the lives of people with disabilities, and that people with disabilities are a primary sales market for this technology. It's important to make sure that accessibility stays at the forefront of this conversation so that people with disabilities don't get left behind. Decisions that are made by policymakers, innovators, regulators and marketers will all impact how this technology is adopted and whether it achieves the potential it has to change the lives of people with disabilities who are transportation disadvantaged. We look forward to working with industry, advocates, and policymakers to shepherd this technology so as to result in a new era of inclusion for people with disabilities. Accordingly, we encourage you to include discussions of the needs of this population as you convene future hearings on the topic of AV and to seek out the views and experiences of people with disabilities in those discussions, and we are very glad to assist in identifying suitable individuals to that end.

Conclusion

NCD is grateful to the Committee for elevating this important topic through today's hearing and we encourage Committee members and their staff to review our report on this topic, "Self-Driving Cars: Mapping Access to a Technology Revolution" which is available on our website at: https://www.ncd.gov/publications/2015/self-driving-cars-mapping-access-technology-revolution. We look forward to providing further testimony at future hearings on this topic.