225 Reinekers Ln., Suite 660

Alexandria, VA 22314

Tel: (202) 467-5081

Fax: (703) 465-5085

­

June --, 2024

Timothy Klein

Office of Technology Policy and Outreach, Office of the Assistant Secretary for Research and Technology

U.S. Department of Transportation

1200 New Jersey Avenue SE

Washington, D.C. 20950

Dear Mr. Klein:

The American Council of the Blind (ACB) appreciates the opportunity to respond to this request for information (RFI) from the U.S. Department of Transportation (DOT) entitled “Opportunities and Challenges of Artificial Intelligence in Transportation” published on May 3, 2024. Transportation is a significant barrier for individuals who are blind or have low vision. Consequently, we appreciate all opportunities to offer our input on advancements in transportation. Below are our answers to the following selected questions.

The American Council of the Blind is the nation’s leading member-driven organization of and for individuals who are blind or low vision. In existence for more than 60 years with thousands of members and 66 state and special-interest affiliate organizations, ACB strives to increase the independence, security, equality of opportunity, and to improve the quality of life for all people who are blind and experiencing vision loss.

Question 2: Opportunities of AI in Transportation

The application of AI in individual automobiles or buses adds a layer of safety for pedestrians with disabilities that is absent when human beings drive their vehicles without any AI input. Human drivers are prone to a myriad of factors that may negatively impact their ability to operate a vehicle safely, including but not limited to fatigue, alcohol influence, or distractions caused by a mobile device. By contrast, AI technology is not prone to the same distractions that influence a human driver. As a result, the AI technology will allow pedestrians with disabilities to more safely travel in their communities without the risk of being struck by a vehicle who runs a red light or fails to see the pedestrian.

Pedestrians with disabilities are more vulnerable to being struck by a vehicle. For instance, a blind pedestrian must listen to the traffic around them to determine when it is safe to cross an intersection. The pedestrian must trust that cars appropriately follow traffic laws to prevent an accident from occurring. The driver must also be paying attention to their surroundings, including oncoming vehicles, pedestrians that might be in their way, and all relevant traffic laws. If the driver is not doing so, then the blind or low-vision pedestrian who is trying to cross the street and who might not see the vehicle will be hit and possibly injured.

Furthermore, presumably, because AI is not unpredictably impacted by its surroundings, a pedestrian is more likely to know how the vehicle with AI will react in certain circumstances. This greater level of certainty will allow a pedestrian with a disability to know how to respond to the vehicle. In other words, when X happens, the pedestrian will know to respond by doing Y. This predictability will empower pedestrians with disabilities to travel more confidently.

Additionally, the advancement in AI is likely to advance the development of autonomous vehicles (AVs). Many blind Americans are excited about the advancement in Avs because of the new freedoms it can offer to people who are blind or have low vision. As AI evolves, so will AVs. This opens a door to a whole new option in transportation for individuals who traditionally cannot drive or who do not have access to a personal vehicle.

Question 3: Challenges of AI in Transportation

One additional challenge brought about by AI in commonly driven vehicles is the mismatch between cars with more advanced AI and those without being driven on the same roads. As previously discussed, the inclusion of more precise AI technology equips blind pedestrians with more exact information on how to respond to a vehicle on the road. Because the activity of the car is more likely to be consistent, the blind pedestrian will know how to travel safely around the car. However, if both vehicles with and without more advanced AI intermingle on the streets, as is likely the situation when such technology is first being developed, there will be a greater inconsistency in the way vehicles act on the road. Pedestrians with disabilities will not be able to rely on the likelihood of probability, because many cars will still be driven by human beings without AI who are more prone to human error. Consequently, pedestrians with disabilities will have to continue to keep their guards up to anticipate a variety of responses by cars on the road.

Another challenge posed by the advent in AI-geared transportation is a matter of equity. At least initially, AI transportation, whether personally owned or used as a shared model, is likely to cost more money. This is commonly seen; new technology comes out and only the affluent can initially afford it. Persons with disabilities are statistically more likely to live below the poverty line. As a result, they will be less likely to be able to afford use of such an advanced form of transportation. People with disabilities, including those who are blind or have low vision, have much higher levels of unemployment compared to the general population. One reason for this is lack of access to public and affordable transportation. As a result, the situation begins to create a vicious circle. Blind persons will not be able to pay for such advanced transportation, will not be able to get to work, and thus will not be able to find employment to pay for the transportation.

Question 5: Other Considerations in the Development of AI for Transportation

An additional component of AI to consider when developing transportation is the role AI can play in making all forms of transportation accessible for persons with disabilities. AI is already opening doors for access to many services for people with disabilities. But like anything else, the intent to use it for accessibility purposes must be recognized. Thus, industry and transportation providers must add access for passengers with disabilities as a segment of the community that should be developed with AI. For instance, AI could be used to help a blind passenger communicate with a vehicle to find the vehicle when it is hailed. These opportunities are very possible, they just need to be identified and explored.

Thank you again for the opportunity to provide our thoughts on this RFI. If you have any follow up questions, please reach out to Claire Stanley, Director of Advocacy and Governmental Affairs, at cstanley@acb.org or (202) 559-2041.

Sincerely,



Claire Stanley, J.D.

Director of Advocacy and Governmental Affairs