



MEETING SUMMARY

Meeting: Health & Equity Subcommittee
Location: Teleconference
Date: March 16, 2021

Attendees:

First Name	Last Name	Organization
Aidan	Ali-Sullivan	Waymo
Daniela	Bremmer	Washington State Department of Transportation (WSDOT)
Kit	Chiu	WSP USA
Henry	Claypool	American Association of People with Disabilities (AAPD)
Andrew	Dannenberg	University of Washington (Chair)
Margo	Dawes	Seattle Department of Transportation (SDOT)
Michael	Harpool	Whatcom Transportation Authority (WTA)
Paul	Inghram	Puget Sound Regional Council (PSRC)
Kent	Keyser	United Spinal Association
Brent	Ludeman	Ludeman Public Affairs
Erin	McCurry	May Mobility
Eve	McMenamy	Spokane Regional Transportation Council (SRTC)
Kyle	Miller	WSDOT
Markell	Moffett	WSP USA
Amy	Pow	Tacoma-Pierce County Health Department
Carol	Tyson	Disability Rights Education & Defense Fund (DREDF)
Anna	Zivarts	Disability Rights Washington

WELCOME, INTRODUCTIONS AND QUICK OVERVIEW OF WORK TO DATE

Dr. Andrew Dannenberg, UW School of Public Health

- The meeting began with a brief welcome from Dr. Andrew Dannenberg, and a round of introductions from meeting attendees.
- Dr. Dannenberg provided new subcommittee members with background on the origin of this subcommittee, having broken off from the safety subcommittee, and an update on the work advanced over the past year, which involved working with other subcommittees.
- Dr. Dannenberg highlighted that two proposals were developed last year, with language from one making it through to legislation.
 - One proposal, focused gathering information from testing entities on the locations of testing sites, was advanced through language included in legislation.
 - Second proposal, focused on getting funding to conduct engagement, did not advance through to legislation.

Topic Closed.



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Presentation: Use of AVs by persons in wheelchairs

Kent Keyser, Public Policy Fellow, United Spinal Association

Carol Tyson (They/Them), Government Affairs Liaison, DREDF

Henry Claypool, Technology Policy Consultant, AAPD

Erin McCurry, Product Manager for Accessibility, May Mobility

- Subcommittee member Anna Zivarts coordinated speakers from the accessibility community to provide their perspectives on AVs.
- Speaker #1 - Kent Keyser:
 - Kent noted that around the world, transportation and wheelchairs have not gone well together, as many transport systems were not designed for accessibility, and many remain inaccessible.
 - AVs could be an opportunity to change that and is potentially a game changer to the lives of people with disabilities.
 - Intersectionality of accessibility with race is critical, as approximately 24% of injuries occurred among non-Hispanic Blacks, while they only represent 13% of the total population.
 - A study¹ on AVs developed by Henry Claypool estimated that approximately \$19 Billion could be saved simply from resolving missed paratransit trips and appointments.
 - Missed paratransit trips is a consistent issue for people with mobility challenges. If the vehicle does not show up, people are unable to get anywhere.
 - Access to an on-demand, reliable vehicle, that allows people to travel when they want to go and where they want to go, would be a major game changer.
 - By 2030, 21.5 million people over the age of 55 are expected to have some difficulty driving themselves. In just 8 years, this challenge will become a major issue.
 - In addition to getting people with disabilities to necessary appointments, this mobility is also a matter of preventative care.
 - Kent noted that prior to his spinal cord injury, he was an avid runner. However, lack of mobility made it difficult for him to exercise and access healthy food. It wasn't until he had a personal support worker when he was able to get access to healthier food and exercise. However, when the accessible van does not arrive, he is still limited in where he can go. While he needs to continue to pay his support worker while waiting for the vehicle to arrive, he can't go anywhere if it does not reliably arrive.
 - Kent believes that, prior to AVs for people travel, there may be a proliferation of automated delivery products. He believes that if government can tackle infrastructure needs associated with both delivery of goods and people with disabilities, it would help

¹ https://rudermanfoundation.org/wp-content/uploads/2017/08/Self-Driving-Cars-The-Impact-on-People-with-Disabilities_FINAL.pdf



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serve as a strong basis for broad deployment. He added that expansion of broadband connection would also be important to ensuring safety.

- **Speaker #2 - Carol Tyson:**
 - Carol shared information on several resources that had been developed out of Washington DC, including advocacy at both the State and Federal levels.
 - Some of this work includes thinking on vehicle and infrastructure design for AVs that will be needed to provide for wheelchair users.
 - There is a one-page cheat-sheet developed with key points on elements needed to make vehicles accessible for people with disabilities.²
 - There is a need to make sure that riders with wheelchairs are able to enter the vehicle, are able to be safely secured, and that the vehicle is sufficiently crash worthy for all people, including passengers with disabilities. Safety both inside the vehicle and within the surrounding environment outside of the vehicle should be considered.
 - Carol's organization, DREDF, is based in California. They sent a letter to the California Public Utilities Commission (CPUC) late last year to establish a case for making accessibility a legal requirement of all AV services. Under the Americans with Disabilities Act (ADA), all services need to be accessible. If AVs are to be used for providing revenue service, similar to transit, there is a need to ensure it is accessible to people with disabilities.
 - A similar letter was also sent to an interagency workgroup in Washington DC, requiring an accessible approach to every in-service vehicle.
 - At the Federal level, a number of bills have been put forward. DREDF has provided feedback to these bills to make it clear that if there are no specific accessibility requirements for companies developing AV technologies, it won't happen. This cannot be left simply to the market.
- **Speaker #3 Henry Claypool**
 - Henry brought up that a big challenge is that there are not many purpose-built accessible vehicles. With the exception of transit vehicles, most service vehicles are adapted after-market.
 - There are no major OEMs making vehicles for wheelchair users from the beginning.
 - AAPD has consistently issued questions to auto manufacturers on how they intend to move towards vehicles that are accessible from the start and hope to see better results in future years.
 - With AVs, companies are looking to stand up transportation services that are clearly covered under the ADA. However, many vehicles being used are not built for accessible needs. Despite being automated, if vehicles are not designed for accessibility, an operator will need to remain available to help passengers in wheelchairs. AAPD is looking to work with AV providers to push for truly autonomous vehicles in the future that will enable people with disabilities to make use of the services with minimal support.

² The cheatsheet, along with other materials shared by Carol, have been included at the end of this document.



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- Speaker #4 Erin McCurry
 - May Mobility manages software and operations for automated mobility. Erin emphasized that they are passionate about accessibility, and are focused on iteration, connection, and collaboration.
 - May Mobility strives to have wheelchair accessible vehicles at all their sites, and with each site, they connect with local advocacy groups to gather feedback to see how they can improve, and have relied on this input to help build this, and enhance the experience of their services
 - They have also worked with national groups to improve research in the accessibility space.
 - Erin noted that physical accessibility of service vehicles will solve only part of the solution, and as May Mobility advances AVs, they want to make sure that they are usable to everyone. This includes exploring the best practices to deploy and help bridge transportation gaps, particularly in rural or low access areas.
 - May Mobility does not build their own vehicles but works closely with the OEMs to modify vehicles to meet their needs.
- Discussion:
 - Dr. Dannenberg asked the speakers on best practices they've seen in terms of aftermarket conversions. He noted that with an operator on board, it would seem to provide benefit as it is an extra set of hands to provide support.
 - Henry responded that there is pretty clear practice out there, mostly built off of paratransit services. Typical side-loading vehicles with a lift don't match well with the on-demand model. Having an operator does help.
 - Kent added that there are a couple of test sites that use electric vehicle AV designs that have an automatic ramp. However, there is still an attendant at these test sites.
 - Carol noted that shuttle sized vehicles are the current standard. May Mobility's vehicles are quite good, though there is still more to be done. Research is ongoing in conjunction with engineers and the disabilities community. There is some research on wheelchair securement approaches that is overlapping with research on air travel practices.
 - Dr. Dannenberg followed with a question on whether there are specific policies that the speakers could point to as examples this group could consider raising as recommendations for Legislature.
 - Henry responded that there is a need to get AVs operating on public streets so that people can learn how they actually work. They need to get out there and prove their functionality. At the same time, there is a need to make sure accessibility features are at the forefront.
 - Carol responded that the letters submitted in California and Washington DC could provide some useful insights. They strongly urge the requirement of a safety and accessibility plan, with key benchmarks and community engagement initiatives.



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- Kent added that relevant infrastructure should also be a consideration. The Administration wants to add one hundred thousand electric vehicle charging stations across the country. There is also a significant amount of infrastructure anticipated to come from the Federal government. The States, being the keepers and executors of this funding, need to make sure that some of this funding goes toward ensuring accessibility. This may include designing for pick-up and drop-off spots that are accessible for AVs. There is also a need to consider streetscaping. These will be costly undertakings but starting early can help make this easier. Kent reiterated that broadband connection will also need to be part of the solution to ensure vehicles are able to safely communicate.
- Erin echoed Carol's recommendation for a safety and accessibility plan requirement. More research needs to be done in this area, and it would be interesting to see more research and advocacy in this area. Accessibility of AVs is important to make it a viable supplement to transit, and key to enhancing multi-modal transportation.
- Margo asked a question of Carol regarding the ADA specifications that were mentioned.
 - Carol responded that DREDF believes that services being provided by AV companies are beholden to the no discrimination clause in the ADA. AV companies should be providing accessible service.
 - It is clear that ridehailing services like Uber and Lyft should fall under this, and they are supposed to provide equivalent services, but are not
 - DREDF believes that they should provide accessible services. There needs to be an accessible option in their fleet.
 - The letter that DREDF submitted indicates that it is not enough that AVs are provided in some areas, but then accessible taxi is used elsewhere. If everything the AV developers are saying is true about the safety benefits of these vehicles, it will be important to make sure that these vehicles are provided everywhere, and are able to provide equivalent service.
- Margo followed up with a question on what is considered as equivalent service.
 - Carol responded that the standard outlines factors such as response times, wait times, and travel times.
 - Henry added that TNCs in California are making the first real test to equivalency. Seeing how their services compare across wheelchair and non-wheelchair users will be useful.
- Anna Zivarts noted that through their interviews with people across the state, many of whom are disabled, cost is often brought up as a challenge to access. One struggle is to figure out how much they should focus on advocating for AVs, which perpetuates the use of automobiles which are detrimental to redlined communities, or if they would be better off focused on transit and better sidewalks.
 - Kent noted that making AVs universally accessible would make it accessible to all. For example, in London, England, the entire Taxi fleet is 100% accessible. Companies need to think about universal accessibility, and not just adapting a few vehicles.



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- Henry added that enabling commercial service can be a driver for getting this technology tested and proven faster. This is important to ensuring the benefits of automated mobility are realized quickly.
- Carol noted that transit may also eventually make use of AVs, so it's important to weigh in as transit advocates. In Phoenix, Valley Metro is already partnering to provide an AV service.
- Dr. Dannenberg concluded that there are potentially recommendations that can be drawn from what the speakers have presented and asked for subcommittee members to volunteer to take on review of the documents.
- **ACTION:** Anna and Margo will take on the review of documents to be sent from Carol and will work to identify what to pull out as policy recommendations for the subcommittee.

Topic Closed.

Suggestions for future agendas and next steps

All

- Dr. Dannenberg noted that future meetings will take place quarterly, rather than monthly as in the past.
- Markell added that the upcoming Executive Meetings will be on May 25th, July 27th, and October 5th. Subcommittee meetings could be scheduled accordingly so that recommendations can be presented to the Executive Committee.

Topic Closed.

NEXT TELECONFERENCE MEETING: TBD

MEETING ADJOURNED.



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AV Accessibility & Equity Resources (Shared by Carol Tyson)

- USDOT Automated Vehicle Activities
 - <https://www.transportation.gov/AV>
- USDOT Inclusive Design Challenge
 - <https://www.transportation.gov/accessibility/inclusivedesign>
- Access Board AV Forums
 - <https://www.access-board.gov/av/>
- DREDF checklist / cheat sheet & comments
 - bit.ly/DREDFav
- Consortium for Citizens with Disabilities AV Principles & Comments
 - bit.ly/CCDAVPrinciples
 - bit.ly/CCDTransportation
- Autonomous Vehicle Federal Legislation Tenets – Safety & Equity Advocates
 - <https://saferoads.org/autonomous-vehicle-tenets/>
- NCD Self-Driving Cars Report (2015)
 - <https://bit.ly/NCDSelfDriving>
- Ruderman Self Driving Cars Report
 - <https://bit.ly/RudermanAV>
- Auto Alliance AV Accessibility Workshop Series Presentations & Report
 - <https://autoalliance.org/avsaccessibility/>
- We Will Ride Coalition
 - <https://joinwewillride.org/>
- VW Inclusive Mobility Initiative
 - <https://www.inclusivemobility.com/>
- DREDF & DRC Letter to CPUC on AV Accessibility
 - https://bit.ly/DREDF_CPUC_AV_Letter
- Greenling Institute: AV Heaven or Hell?
 - <https://bit.ly/GreenliningAV>
- BPRW: Will Self-Driving Cars Help or Harm Our Communities?
 - <https://bit.ly/AVsHelpOrHarm>
- Addressing Racial Bias in AI: A Guide for Curious Minds
 - <https://bit.ly/RacialBiasAI>