

# When We Say “Safe Vehicles”

*Inclusive Algorithms & Data, Privacy*

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# Disability Rights Education & Defense Fund

## Vision & Principles

- **DREDF is a legal and policy center led by people with disabilities, and parents of children with disabilities.**
- *We envision a just world where all people, with and without disabilities, live full, joyful, pleasurable lives free of discrimination and oppression.*
- Advocate for integration and inclusion over segregation.
- **Access to safe mobility is a civil and human right.**

# Safe (AV) Vehicles & Disability Resources

Addressing Disability and Ableist Bias in Autonomous Vehicles: Ensuring Safety, Equity and Accessibility in Detection, Collision Algorithms, and Data Collection. DREDF Brief by Ian Moura, November 2022. <https://bit.ly/DREDFAVBias>

Exploring Algorithmic Bias as a Policy Issue: a Teach Out. Free and online via Coursera and Johns Hopkins University. Taught by Ian Moura and Shannon Frattaroli, PhD, MPH. 2023. <https://www.coursera.org/learn/algorithmic-bias-teach-out>

AVs & Increased Accessibility: Workshop Series Report. Auto Alliance. May/July/September 2019. <https://www.autosinnovate.org/avaccessibility>

Formal Recommendations of the Transforming Transportation Advisory Committee to the US Department of Transportation On Artificial Intelligence, Automated Driving, Project Delivery, and Innovation for Safety. December 13, 2024. <https://bit.ly/TTAC2024>

# Safe & Accessible AV+ Disability Checklist

*AVs have the potential to transform & save lives if needs are considered*

- Accessible Human Machine Interface (communication)
- Accessible Vehicle Hardware (securement, ramps)
- Clean, low emission (eg, electric school buses)
- *Acknowledge Bias and Bake-In Inclusive Occupant and Pedestrian Detection & Decision Making*
- *Address Privacy, Monitoring & Surveillance Concerns*

# Acknowledging How Bias Shows Up in AVs

## Ask WHO is in the data sets used to train the AV's AI for Detection

- Data sets must be inclusive of people with a range of disabilities, including wheelchair users and people with multi marginalized identities, eg, disabled women or gender nonconforming people; Black, Brown or Indigenous people who are often underrepresented

## Ask WHAT data is collected and used

- AVs must be able to identify bike lanes and locations of curb cuts to facilitate safe pick up and drop off for disabled passengers (see bike lane debates)

## Consider decision making in algorithms and consequences

- Eg, Will the AV identify and stop for a seated pedestrian moving backwards or will it speed up?

# Bias in AV Development Reflects Society

Bias often not intentional but can undermine shared goals

- AVs that are driving at or below posted speed limits and without distractions can decrease traffic deaths and serious injuries
- AVs have potential to increase independence for disabled travelers
- And yet, ableism, racism and transphobic messaging and policies are insidious and currently encouraged. Need to explicitly adopt inclusive approaches that acknowledge ableism and other forms of bias and discrimination
- People must never be “edge cases”. Cameras used for monitoring or surveillance do not make everyone feel safer.

# Disability Community Collaboration is Key

There is no replacement for lived experience

- Can assist in identifying vehicle design and data set needs
- What personal and demographic data should and shouldn't be collected, stored, shared and with whom to balance safety, convenience and privacy
- What disabled people want and need in transportation including people at or below poverty line
- *We can and must work together to adopt inclusive approaches to AV and safe vehicle design and development.*

# Recommendations

## Form Relationships with Disability Advocates

- Form relationships with local and national disability orgs and advocates. Hire disabled people to work in government and industry. Nothing can replace lived experience.

## Be An Ally!

- Recognize that the disability community is under assault right now.
- Black, brown, white, immigrant, transgender and nonbinary / gender nonconforming disabled people are all being threatened.
- We are fighting every day for our healthcare and supports and services we rely on from Medicaid – without them many will wind up in nursing homes or other institutions. People will also die.
- We are defending access to integrated, quality education, to affordable, accessible housing and transit.



# A Safe Society is the Goal

*DREDF will continue to work alongside fellow safety advocates, policymakers and all stakeholders to ensure safe vehicles. We need you to join us as we speak out and organize to build and sustain a society that prioritizes justice, freedom, equality and safety for all.*

**Thank You**

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