



Access Is...

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Keynote for: 2021 A Future Date Conference



Anticipated Audience?

- People with proximity to tech research, design, dev, QA, PR, and training programs
- Some people with disabilities, many non-disabled
- Many accessibility reps and systematically marginalized folks who do not have much power
- Disability and justice-oriented tech activists
- ***Prompt:*** *How and when does our proximity empower us?*



Access Is...

What does access mean to you?

Who and what does this definition include and not include?




Outline

- **Background on Disability and Ableism**
 - Access as Fixed and Compliant
 - Access as Accountable
 - Conclusion



15% of
people
Worldwide
have
disabilities

- Lived experiences created when bodyminds interact with the environment in such a way that their full participation is hindered or not recognized
 - An identity, culture and politics based on the lived experience of disability
 - [Alison Kafer 2013, [World Health Organization](#)]
- 



Ableism

Attorney and Organizer Talila A. Lewis [defines ableism as:](#)

- A system that places value on people's bodies and minds based on societally constructed ideas of normality, intelligence, excellence, desirability and productivity
- These constructed ideas are deeply rooted in anti-Blackness, eugenics, misogyny, colonialism, imperialism and capitalism
- This form of system oppression leads to people and society determining who is valuable and worthy based on a person's language, appearance, religion and/or their ability to satisfactorily [re]produce, excel and "behave."



Ableism

You do not have to be disabled to experience ableism.

[<https://www.talilalewis.com/blog/january-2021-working-definition-of-ableism>]



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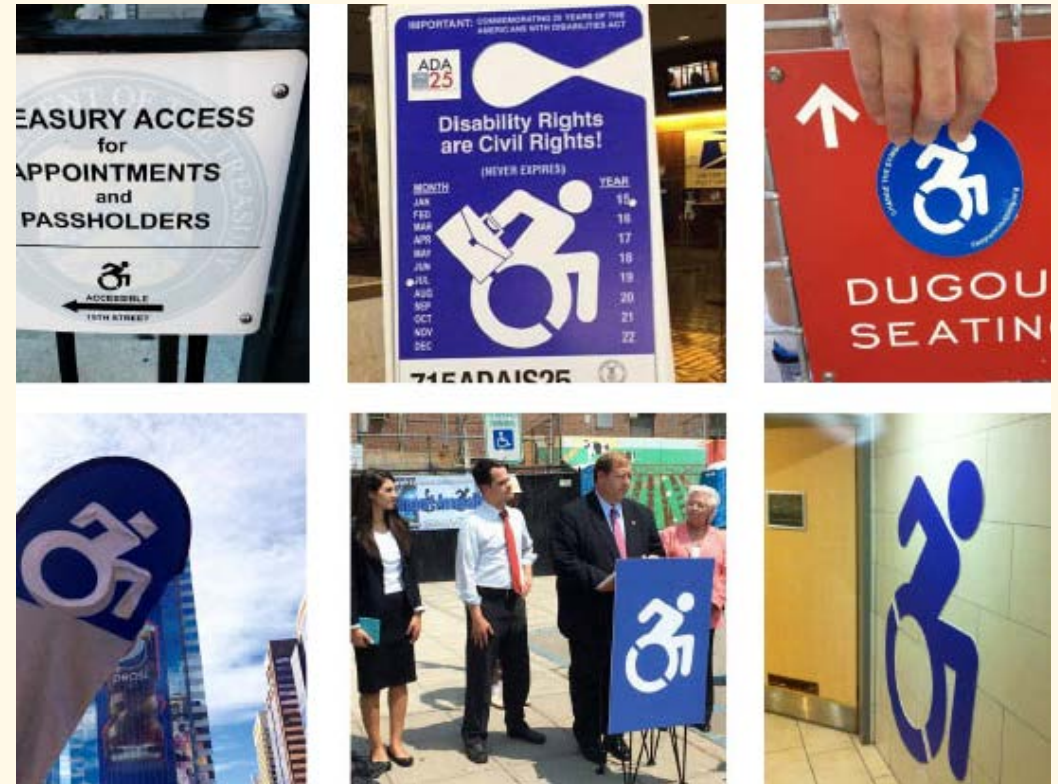


Access Is....

Compliance
With Law

Access Is...Compliance With Law

- [Web Content Accessibility Guidelines](#)
- [Americans With Disabilities Act](#)
- [Accessible Canada Act](#)
- [UN Convention on the Rights of Persons With Disabilities](#)





Access Is...

A Future Date



Unfortunately no captions for this program. But we hope so soon for a future event!

[Joseph Grigely's Inventory of Apologies](#)



Joseph — we still haven't solved it — so sorry.

We sincerely apologize for falling short on inclusivity in our digital programs and we are working to correct this as soon as possible.

Unfortunately no captions for this program. But we hope so soon for a future event!

I heard they looked into it and confirmed it wasn't happening. I made a suggestion that all videos are captioned. Hopefully we can make a change in the future. So sorry.

[Joseph Grigely's Inventory of Apologies](#)



Joseph — we still haven't solved it — so sorry. We're working a little slower at the moment owing to rotating furloughs across all of the teams, but I have received news that there are several plans in the pipeline for improving our accessibility, ensuring this does not happen again. I hope you can join us for the next talk. Unfortunately, our Zoom plan does not allow for closed captioning and transcriptions of webinars. I also spoke with Zoom, who confirmed that was not a feature our plan supported. I have told them that they should include accessibility options for every account by default, and they said they would pass along that feedback to their team. I apologize that it does not provide a solution for us currently. We recognize that we fell well short of our goal in this instance and that we need to do better. ADA compliance is something we take seriously, and although we have yet to schedule any more online events, I can assure you that our next one will be compliant.

We are trying to find a solution to this, Joseph. I am sorry for my ableist oversight. It was/is fucked up and I will do better. We sincerely apologize for falling short on inclusivity in our digital programs and we are working to correct this as soon as possible. We have much regret that we are currently unable to realize this project in another way. It is a great concern of ours to make our programs in both the physical and digital space gradually less barrier-free and more inclusive. We should have specified the details in our announcement and apologize for this. Cultural inclusion is important to us! Unfortunately, our digital Festival is not fully accessible. It will be broadcasted on youtube where you can find automated subtitles. We are aware that this is not sufficient in making the program fully inclusive and we will work on improving that aspect. I flagged this for our ITS department, hoping the solution is up and available moving forward. The events on Thursday and Friday are also in English and our hope is to have this solved by then.

Unfortunately no captions for this program. But we hope so soon for a future event!

Joseph Grigely's Inventory of Apologies



Limitations of Access As Compliance

- Responsibility of a small number of professionals
- Compliance timelines out of control of people requesting access
- Often remedial (requiring lawsuits or advocacy), overburdening disabled people
- Centers technology, neglecting ecosystems



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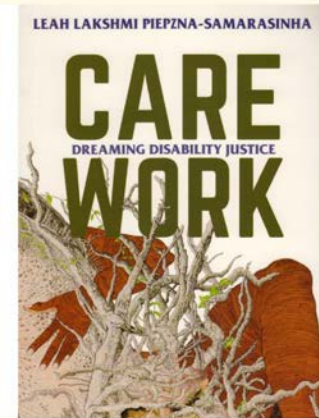



Access Is...

Accountable

Access Is...Accountable

Images (clockwise from top right): [Access Centered Movement](#) co-founders Jess Dene Schlesinger and India Harville, Mia Mingus, Sins Invalid's disability justice primer, and *Care Work* by Leah Lakshmi Piepzna-Samarasinha






If we think of
access as
accountable,
we may
notice:

- Access can be exploitative
- Recognize disabled creativity
- Redress access structurally
- Keep maintenance in mind
- Work through conflicting needs



Access Can Be...

Exploitative

- 
1. Disability as inspiration [[Bennett and Rosner 2019](#)]
 2. Appeal to mainstream audiences, minimize disability
 3. Disappear disability in promotions
 4. Sell back disabled creativity as luxury and convenience.

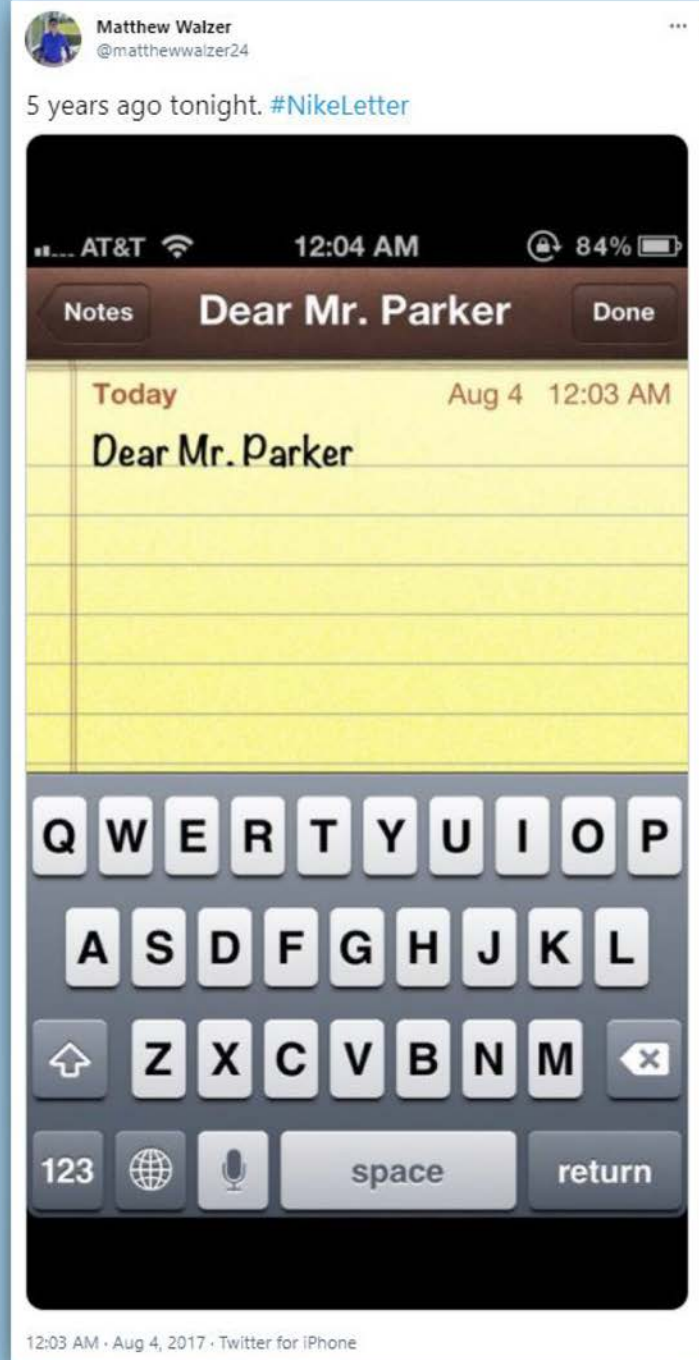
Timeline of Nike's Go FlyEase

*Jaipreet Virdi, [Disability Historian and Author](#), and
Liz Jackson, Founder of [Critical Axis](#) and [The Disabled List](#)*



1. Disability as inspiration

- 2. Appeal to mainstream audiences (situational impairment)
- 3. Disappear disability in promotions
- 4. Sell back disabled creativity as luxury and convenience





1. Disability as inspiration
- 2. Appeal to mainstream audiences (situational impairment)**
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It is currently unclear what the exact price of the Go FlyEase shoe will be; [NPR](#) quotes it as \$120. Regardless, the issue of monetary accessibility remains relevant at that price point.



**Accountable
Access...**

Recognizes
Disabled
Creativity



Disabled People Regularly Adapt Their Worlds

- Crip Technoscience: knowing-making from disability-informed alteration (activities of experimenting, modifying, inventing, and dismantling inaccessible infrastructures [[Hamraie and Fritsch 2019](#)])
- Recognizing crip technoscience may be a start toward inserting accountability into inclusive design [[Rosner et al. 2018](#)]



Crip Couture

Artist: Sandie Yi

Model: Sunaura Taylor

Images: [Word Gathering](#)



Biographical Prototypes: Reimagining Recognition and Disability in Design

- Based on [Bennett, Peil and Rosner \(2019\)](#)
- [[Disability Visibility Project](#)]

What Are Biographical Prototypes?

Material manifestations of stories of 'making something work' which foreground people with disabilities as the fashioners of their own stories in design contexts.



Development of Biographical Prototypes

- People with different disabilities **engaged** with biographical prototype examples
- Partners **told stories** and chose one each to prototype
- Partners **helped each other** make their biographical prototypes
- Participants **shared prototypes** and discussed design, disability, and storytelling



Participants Celebrated Each Other's Creative Alterations



Denise uses custom grips to keep her hands steady while she paints.



Shay has difficulty sleeping, and has created a personal regimen to help them sleep.



Societal Perceptions: Participants Don't Have Stories

“Who is credited with design depends on who is given the most agency. When people see you’re disabled, they won’t think of that person as possibly coming up with that design for themselves.”

—Tali



Participants Want Accessible Design and Structural Ableism Recognized

*“I don’t really want to be the designer, I want someone else to do the designing and **I want to benefit from it.** I think the Pollyanna part of it is, ‘well we’re all designers!’ But is that the optimum condition for people with disabilities? That feels like a job title I don’t want...”*

*I want to make a distinction between the **power that comes from sharing** the things we have to do versus **the fact that we have to do them.** [These things we have to do] shouldn’t have to happen.”*

—Carrie

Biographical Prototypes

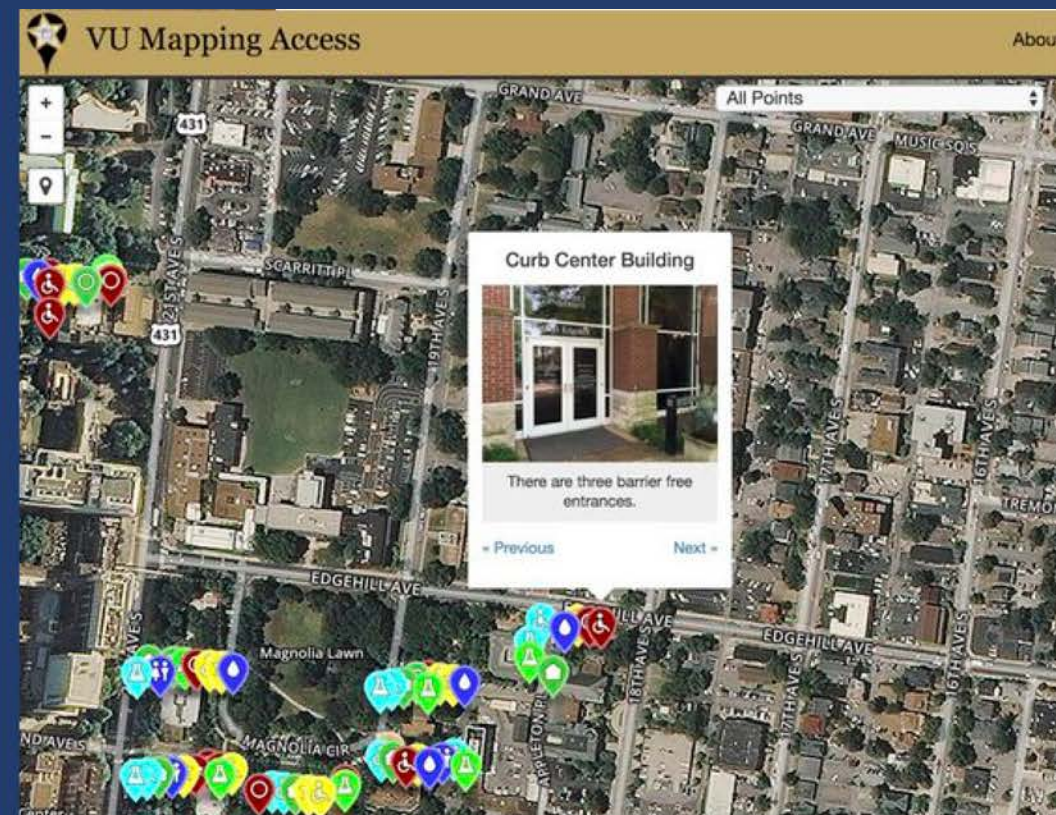
- Can foster recognition of contributions to design by disabled people
- May enforce design language and obscure other types of work and structural ableism underpinning creativity





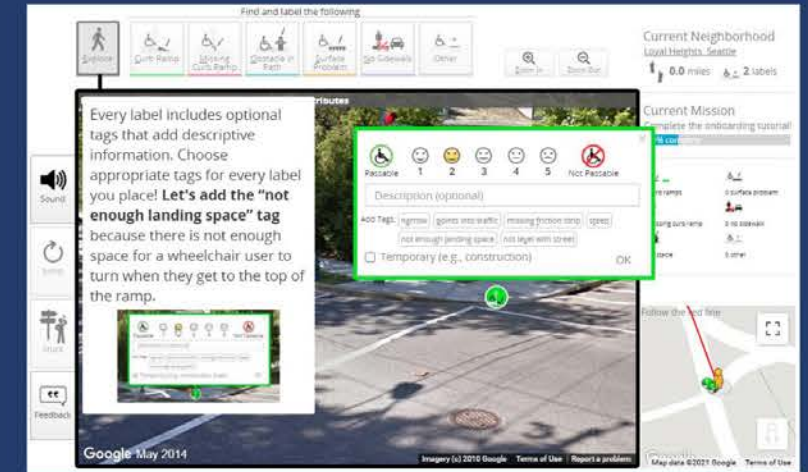
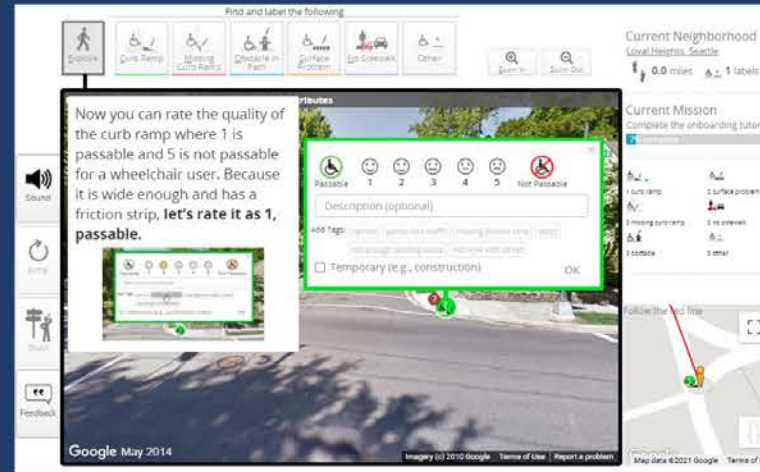
**Accountable
Access Is...**

Structural



Mapping Access From the Critical Design Lab

Aimi Hamraie, Director of [Critical Design Lab](#), and Leah Samples, founder of [Mapping Access](#) project



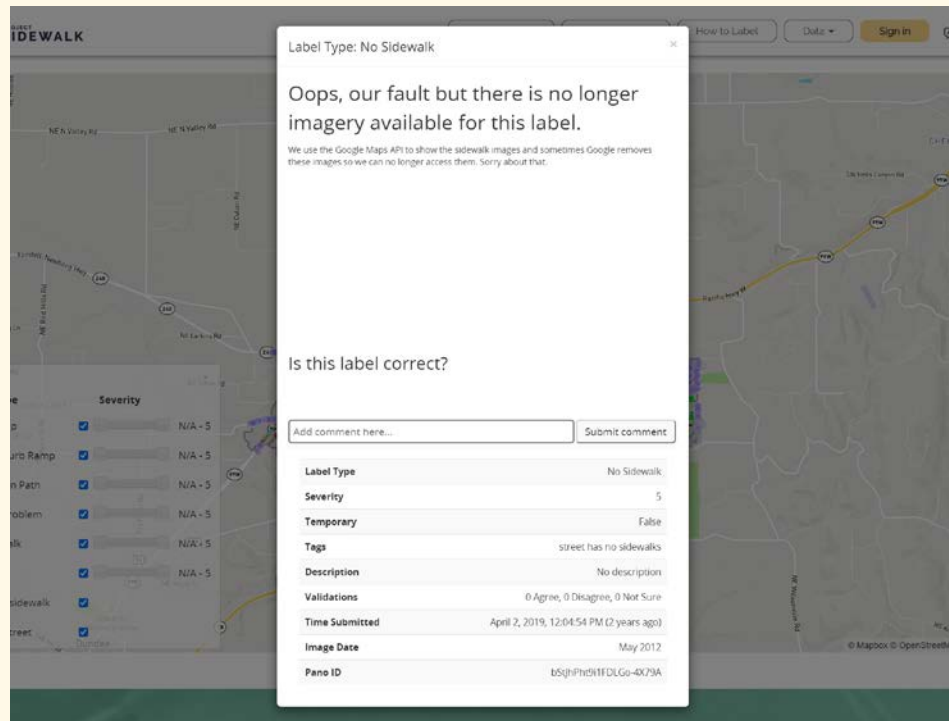
Project Sidewalk



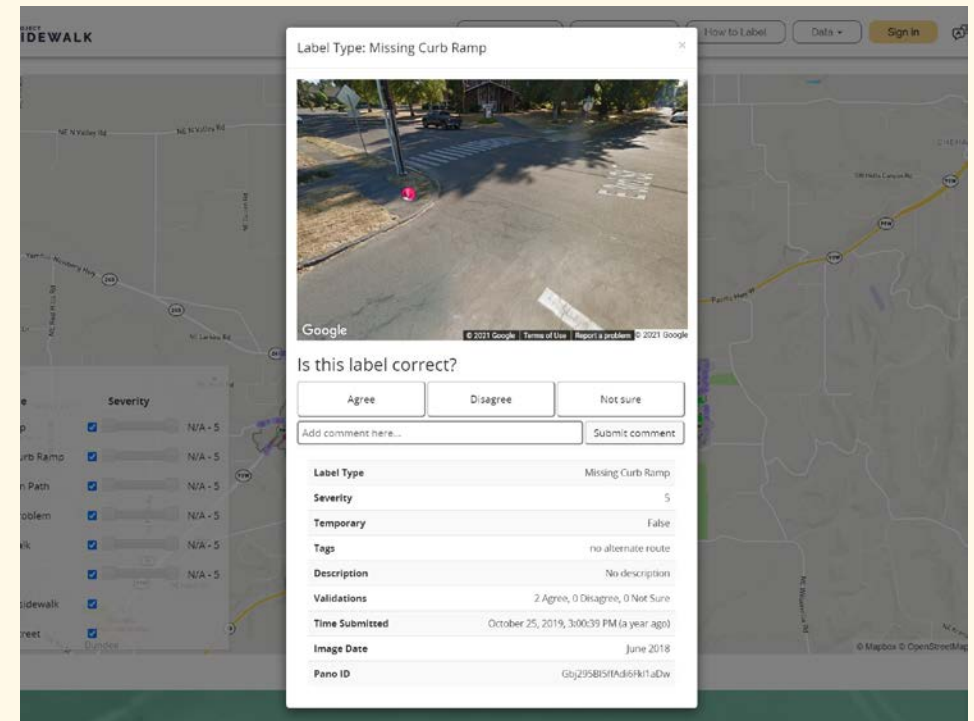
**Accountable
Access Is...**

Maintenance

Data Maintenance of Project Sidewalk



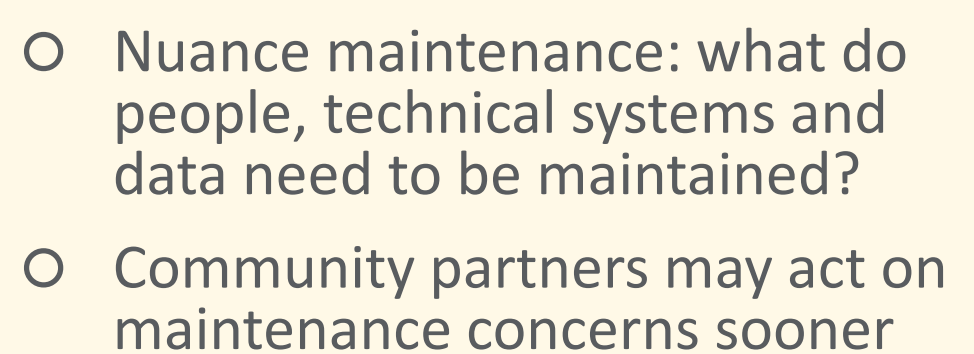
An 'expired' data point



What should be there



How do we maintain access?

- Updates must be checked to verify they won't regress access
 - Calibrate what you promise users: consider how pilots and prototypes may provide access that may be regressed and potential impacts
 - Pitch ideas that solve urgent needs with maintenance plans
 - Nuance maintenance: what do people, technical systems and data need to be maintained?
 - Community partners may act on maintenance concerns sooner
- 



Structural Access Impacts

Participatory mapping of the built environment:

- Immediately provided accessible routes for disabled people
- Situated access as a collective responsibility with many contributors
- Justified long-term access improvements ([Vanderbilt University](#), [Newberg, OR](#))
- Cross-solidarity justice (examined disability and gender access, and reflections on documenting access on colonized land) [[Mapping Access](#)]



**Accountable
Access Is...**

Working
through
Conflict



Accountable Access Is... Working Through Conflict

Examples:

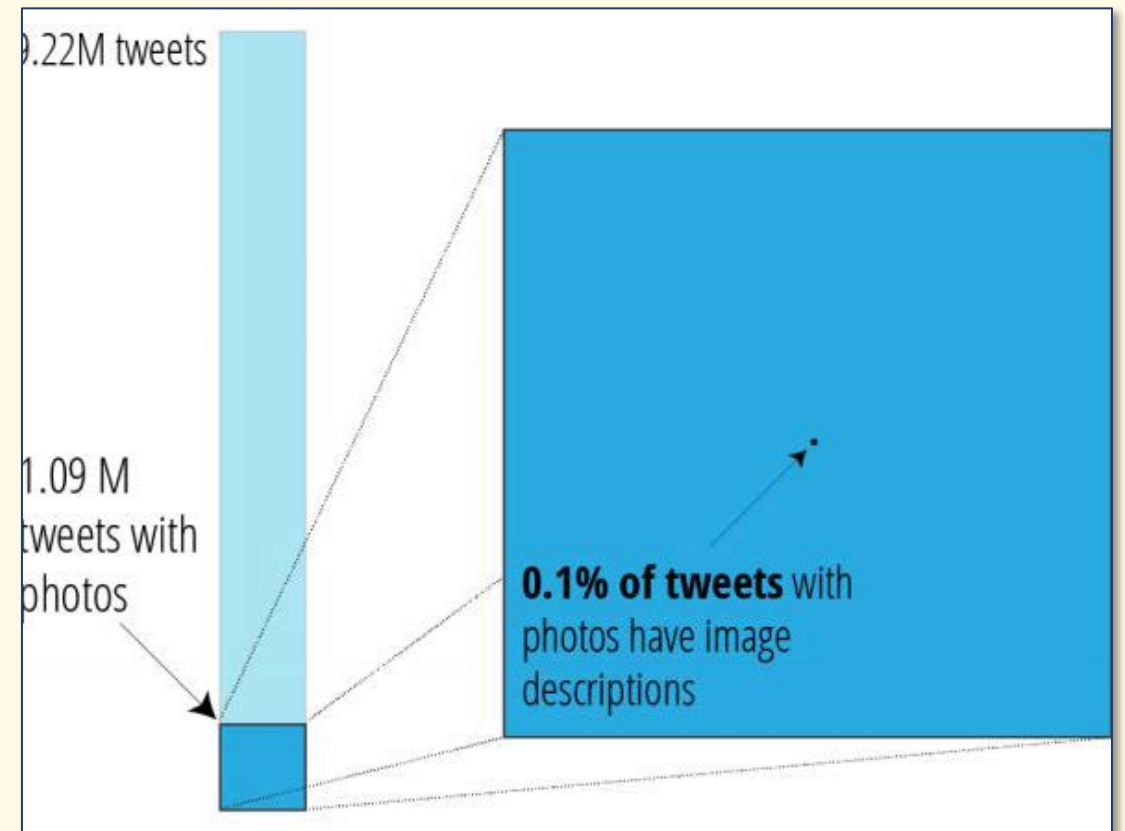
- Image Descriptions of Appearance
- Conflicting Access Needs

Example 1: Image Descriptions of Appearance

Image descriptions or alt-text provide access to photos for blind people who cannot see them.

But most images don't have them; in 2019, less than 1% of Twitter images were described. [[Gleason et al. 2019](#)]

AI may scale the production of image descriptions.





AI Has Known Biases

- Race and gender are classified narrowly (e.g., leaving out non-binary people) [[Keyes 2019](#), [Scheuerman 2020](#)]
- Disability is often not classified but is biased when it is [[Morris 2020](#), [Trewin 2019](#), [Whittaker et al. 2019](#)]
- People already disadvantaged tend to be misclassified or harmed by AI surveillance [[Bennett and Keyes 2019](#), [Buolamwini and Gebru 2018](#), [Coded Bias 2020](#), [Noble 2018](#), [Benjamin 2019](#)]

Some AI Image Descriptions Include Appearance Information

Microsoft Seeing AI Person Description:

“23 year-old woman with brown hair looking happy”

Age: Wrong

Gender: Right

Image Descriptions? Helpful

Subjective judgments without possibility of confirmation? Questionable





Different Perspectives of AI-Generated Image Descriptions

Interviews with blind people who were also BIPOC, nonbinary and transgender on thoughts of AI and image descriptions of race, gender and disability [[Bennett et al. 2021](#)]:

“I favor something rather than nothing, even if some of the descriptions are wrong”

—*Parker, white trans man*

“It’s just one more microaggression that I have to put up with from technology that’s supposed to help. I would hate if every time I upload a photo I have to change it or do something so that it doesn’t say [age, misgender]”

—*Tracey, white transfeminine person*

“The people that are impacted are people that are often already bearing the brunt of so much other stuff (anti-Black messaging on social media) would just be compounded if AI is giving me biased information”

—*Yvonne, Black cis woman*



Different Perspectives of AI-Generated Image Descriptions

- AI shouldn't describe identity
- Should be opt-in

Human Describers Should Use Photographee's Preferred Language

A potential description for this image may be:

“[A Black, disabled, nonbinary person] with a filtering face mask walks down a neighborhood street with one hand in their pocket and the other hand on their cane. They have a short mohawk and are wearing a jacket, shorts, tennis shoes and glasses.”

[Image: [Disabled and Here](#) (CC-BY)]



Describe Appearance When Identity Is Unknown

“[A person with darker skin] with a filtering face mask walks down a neighborhood street with one hand in their pocket and the other hand on their cane. They have a short mohawk and are wearing a jacket, shorts, tennis shoes and glasses.”

[Image: [Disabled and Here](#) (CC-BY)]



Other Contextual Factors

When the audience knows photographee well, description could contain just their name: “Leila.”

If image promotes popular media, include both name and identity/appearance description to raise awareness of representation.





Open Questions Remain

- How might race be described with respectful language? Spectrum skin tone language (lighter, darker) reenforces colorism.
- How might design support appropriate sharing? Reading appearance in 100% of photos was not preferred though appearance descriptions were desired more than they are currently.

Example 2: Conflicting Access Needs

Cynthia and Megan are disabled colleagues.

Cynthia: blind, uses cane for navigation and identification

Megan: syncope disorder triggered by high-pitched sounds, uses cane for stability



Example 2: Conflicting Access Needs

When bus drivers see their canes they lower the bus to make boarding easier.

The ramp emits a high-pitched, faint-triggering sound while lowering.

Megan can hide her cane as she doesn't always need it.

Cynthia needs her cane to be safe.

What do they do when they board a bus together?



Example 2: Conflicting Access Needs

What do they do when they board a bus together?

Megan will faint if she hears the sound.

Cynthia won't.

Megan can guide Cynthia to navigate safely.

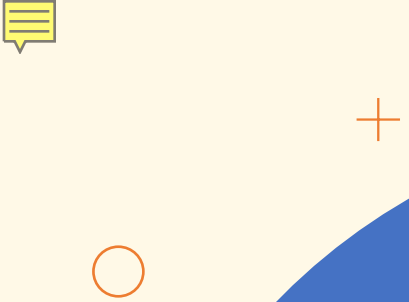
Cynthia gives up autonomy so Megan stays safe.





Working Through Conflict

- Acknowledges access may help while harming, facilitates discovery of conflict
- Considers how access may work for everyone, not most privileged people, prioritizing solutions that benefit the most impacted
- Situates access with other types of justice (e.g., racial, gender)
- Recognizes ethical review as part of technology development



How can we facilitate access while mitigating harm?

- Recruit people with conflicting needs and preferences to work together
- Ensure disabled people on teams and community partners actually represent a diversity, prioritizing those most harmed, such as people negatively racialized and gendered in the case of AI for accessibility: take time and build rapport
- Discuss not only benefits, but potential harms with diverse stakeholders
- ○ Be willing to withhold solutions when they may harm some people, even when they can benefit others




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Access Is...

What does access mean to you?

Who and what does this definition include and not include?

How might your access work become more accountable?



Funding

- National Science Foundation
- Microsoft Research
- Human Centered Design and Engineering
- Allen School of Computer Science and Engineering
- Disability Studies Program
- DO-IT AccessComputing



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Thank You!

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