Seeing UI: Researching Web-Accessibility Improvements for Screen Reader Users

The web is largely inaccessible for people who are blind. Often requiring blind users to,

“use lots of work-arounds to cling to dear life for [their] independence”

Web inaccessibility not only makes it more difficult for people who are blind to use the web, but it is dehumanizing and compromises their agency.

97.4% of the top 1 million home pages had automatically detectable accessibility failures

Project Description

“Which web accessibility problems are most important to solve for people who are blind?” We...

Interviewed 16 people who are blind
Surveyed 38 people who are blind
Analyzed Quantitative & Qualitative Data

Human-Centered Design Insights

45% prioritized shopping websites to be fixed first

Website Type: Which is Most Important?
Interviewees want shopping websites to become more accessible, with one user saying,

“this is an option that should open doors but is shutting me out even more”

As well as shopping websites, banking and job search websites as important areas for accessibility improvement.

Frustrating or Completely Blocking: What Kind of Problem Should be Fixed?

Blind users want issues that fully block their progress to be prioritized over common minor frustrations.

One screen reader user described their experience as,

“I feel as though I have run into a brick wall while rushing ahead at high speed”

Clutter: Rethinking Navigation

Clutter looms over every web interaction for the blind community. It can shift screen reader focus causing disorientation and confusion.

As one interviewee put it, it is

“kind of like walking through a mall with multiple kids, and they all see something they want.”

Where Can Our Insights Take Us?

Task Specific Headings

Shopping experiences should allow screen reader users to skip from one search result title to the next, without having to key past details like ratings.

Form Error Handling

Web forms present disproportionate difficulty for blind web users. A machine learning algorithm that could locate and draw the screen reader focus to an error message could have a huge positive impact.

Pop-ups

Making it easier to navigate pop-ups with screen readers is an impactful problem to solve due to the widespread use of pop-ups on various website types.