Agile ORLANDO 2023

JULY 24-28

PRESENTED BY Agile Alliance®

JOIN US TODAY!

#AGILE2023

LEARN MORE

Sukriti Chadha

Agile Accessibility

Agenda

- Digital Accessibility Basics
- Why Accessibility
- Examples
- Agile Product Lifecycle
- Beyond Compliance Example
- Q&A

Speaker: Sukriti Chadha

https://www.linkedin.com/in/sukriti-chadha/

Digital Accessibility Basics

What is a disability?

What is Accessibility?
What is Inclusion?

A 60-foot long ramp that looks like a maze and visually takes up the entire front of the house, with unnecessary turns leading up from a street to the door of a house

A ramp leading from street level to the door of a house, with side rails and one turn

Why Accessibility?

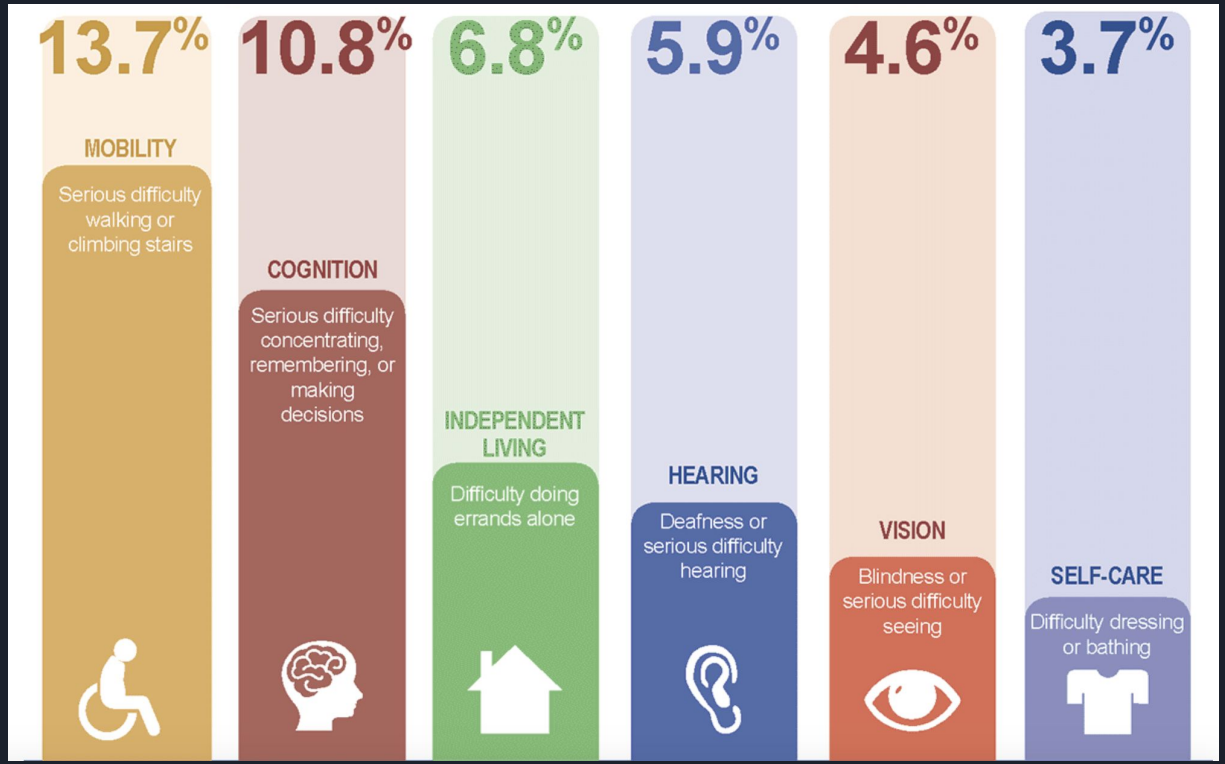
1B+

People in the world live with some form of disability including

26%

Of US adults live with a disability

Distribution of functional disability types



Distribution of functional disability types in the US: 13.7% mobility, 10.8% cognition, 6.8% independent living, 5.9% hearing, 4.6% vision and 3.7% self-care

97%

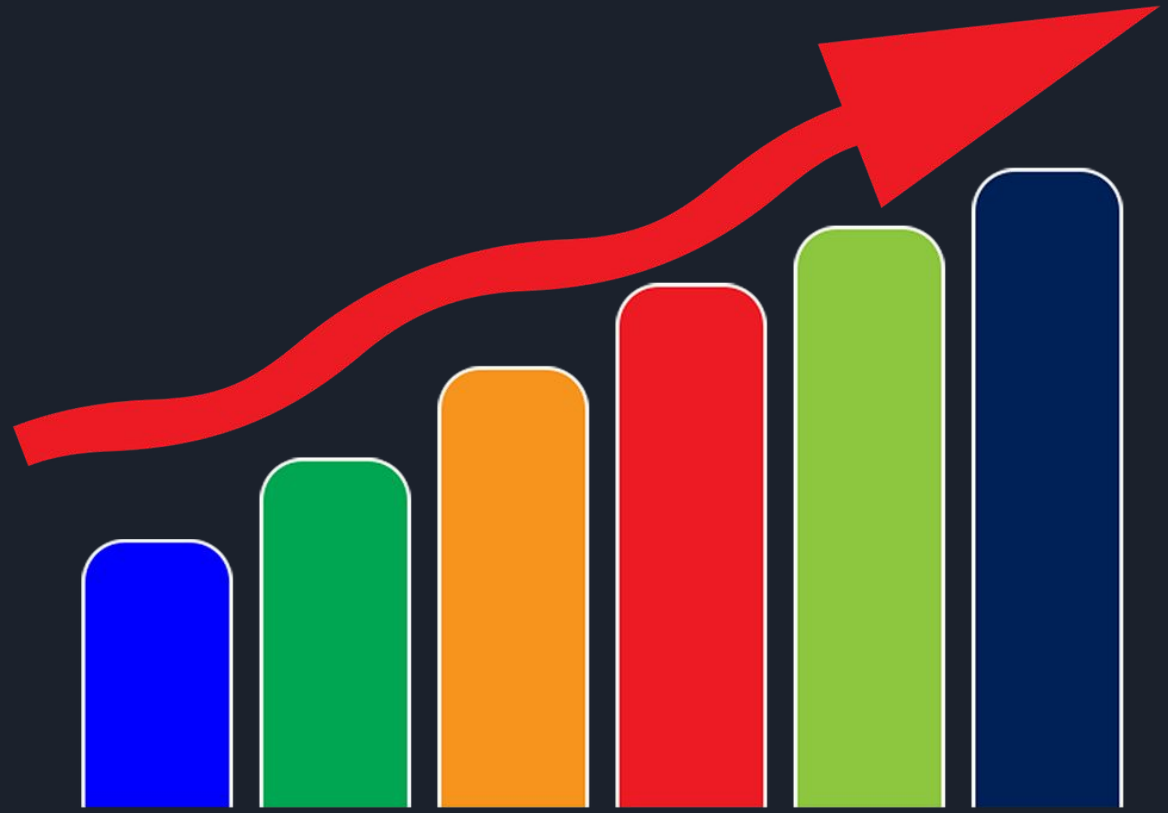
Of the world’s top 1M websites fail even the most basic accessibility checks

Legal and Compliance Landscape

Regulatory Frameworks

1. ADA
2. WCAG (A, AA, AAA)
3. Section 508
4. CVAA
5. EU Web Accessibility Directive
6. European Accessibility Act
7. Accessible Canada Act

Between 2019 and 2022, 12% increase in lawsuits



User funnel with 15% hollowed out

“The U.S. Department of Labor’s Office of Disability Employment Policy categorizes persons with disabilities as the third-largest market segment in the U.S., after Hispanics and African-Americans. The discretionary income for working-age persons with disabilities is $21 billion—greater than that of the African-American and Hispanic segments combined”

- 2018 Accenture Report

Challenges

Prioritization

Impact = (People reached X Impact on each person) - (People excluded X Impact on each person)

CS and other tech programs don’t teach a11y

Know-how

Measuring impact

Different/ overlapping user needs

Design-only focus

Tech outpacing guidelines

Mobile Specific Challenges

By 2025, 72% of all internet users will solely use smartphones to access the web

Predicted by World Advertising Research Center

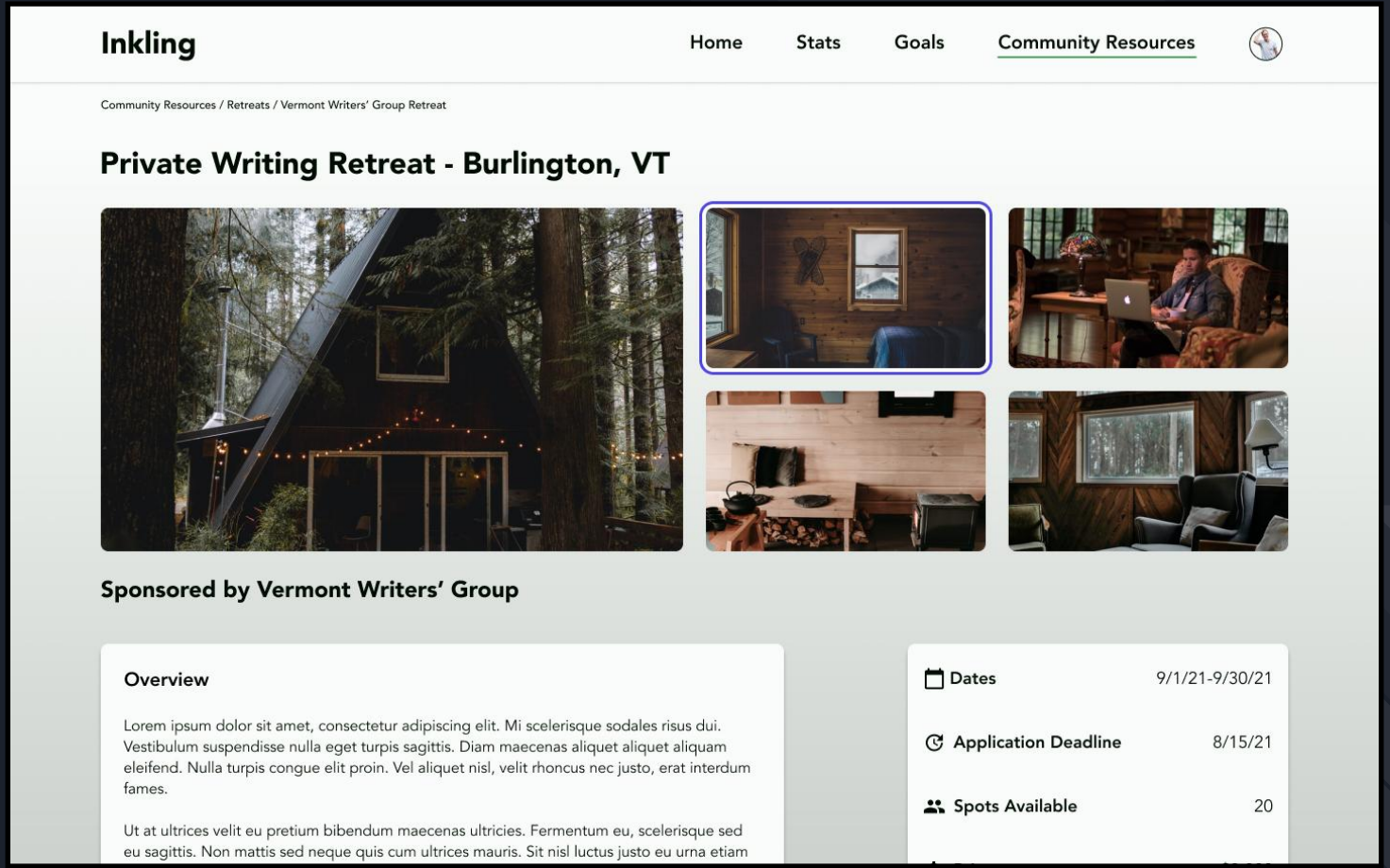
- Limited documentation and guidelines
  - Last mobile WCAG guidelines published in 2015
- Fragmentation
  - Types of device (watches, tablets, operating systems)
  - Sizes
- Supporting different orientations
- Release cycles and long-tail adoption
- Consideration for multiple sensors and output devices

Practical Examples

Social Media

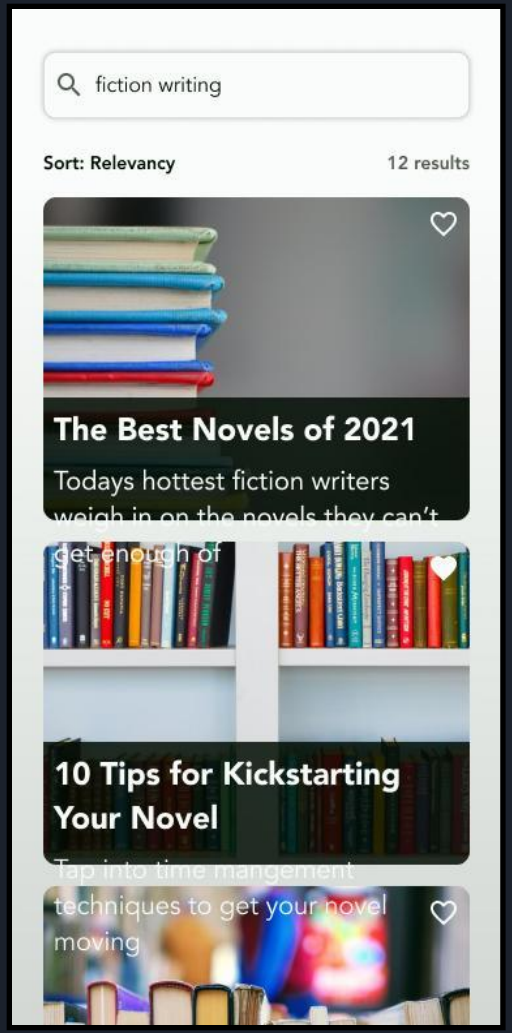
#thissisthebestproductever >
#ThisIsTheBestProductEver

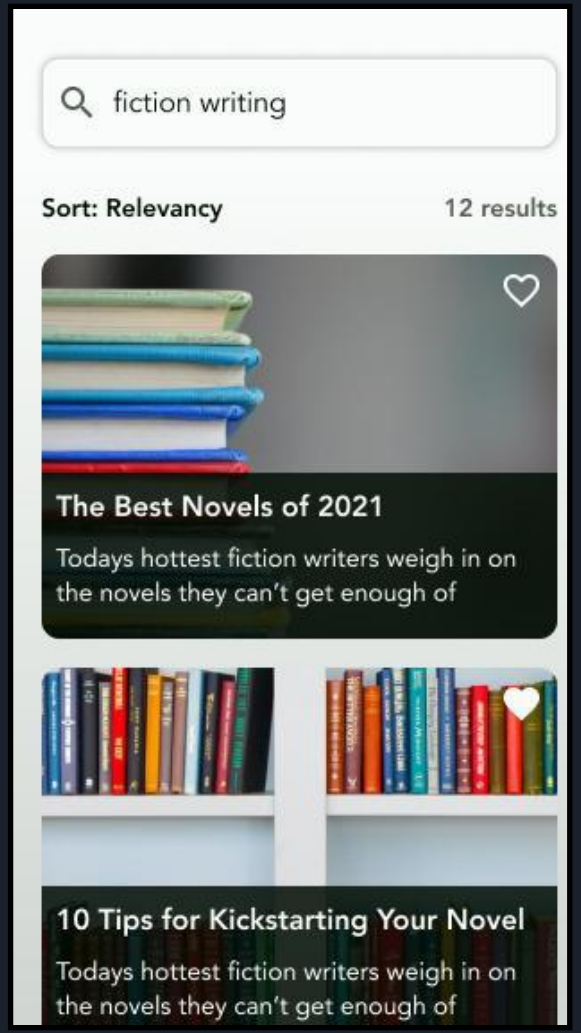
A side-by-side comparison of a Spotify playlist page with the shuffle setting turned off and on respectively. The shuffle button turns green with a dot on the bottom when on



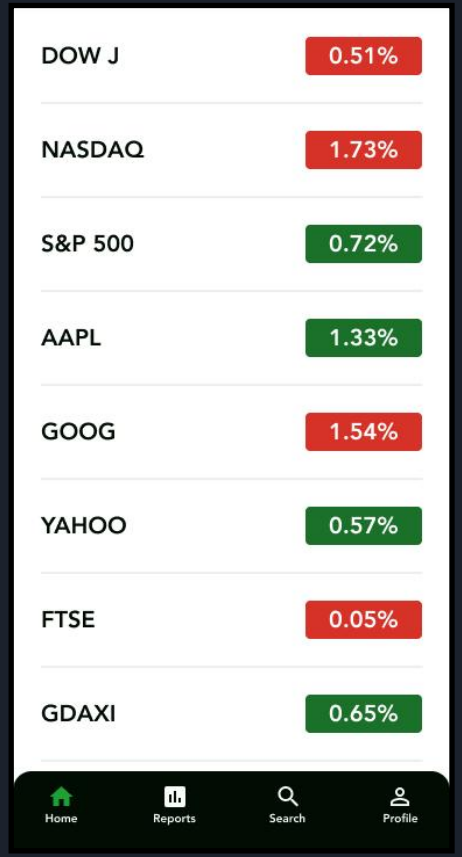
Webpage with an image in current focus

Mobile app screen with images of furniture, with sale items and departments as subcategories

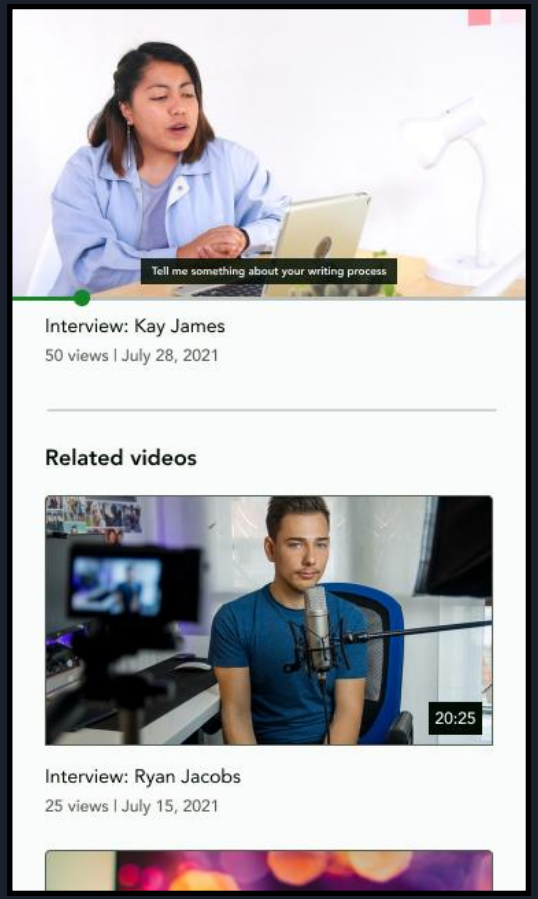


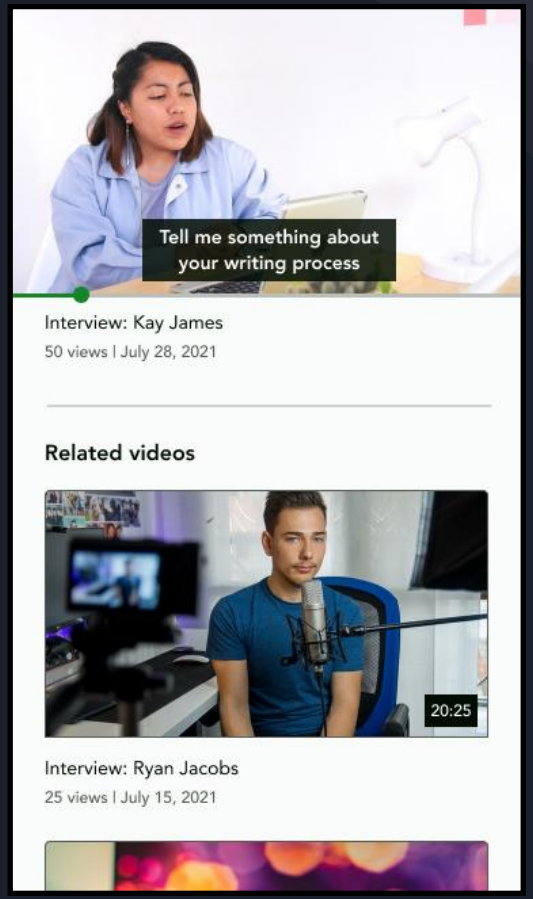


Two mobile app screens. One on the left with large text size, where images don't scale with the text, causes elements to overlap, making it unreadable. One on the right, where the rest of the content scales with enlarged text

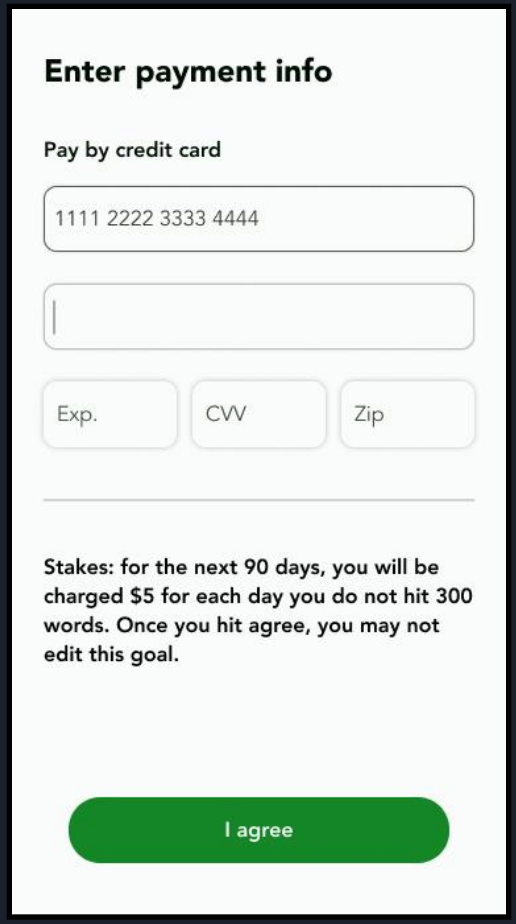


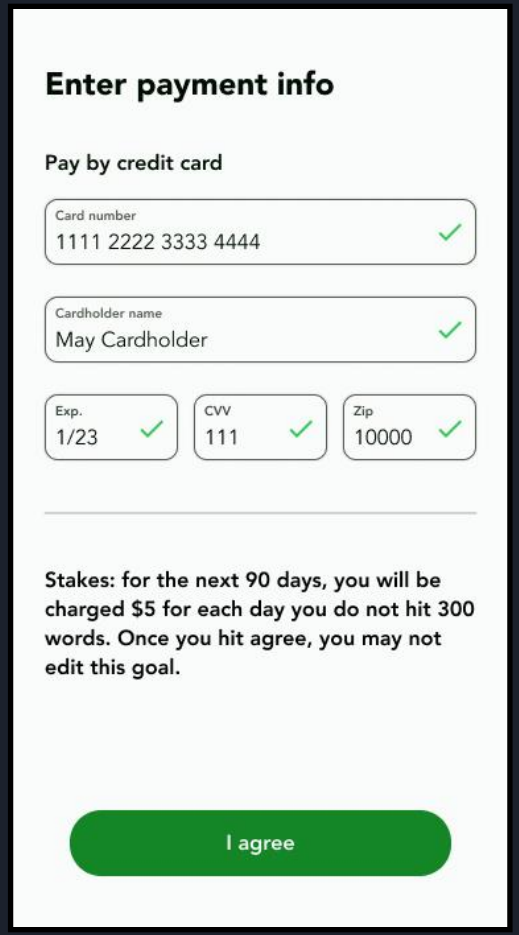
List of financial stocks where a positive movement is shown by a green background and negative movement by a red background



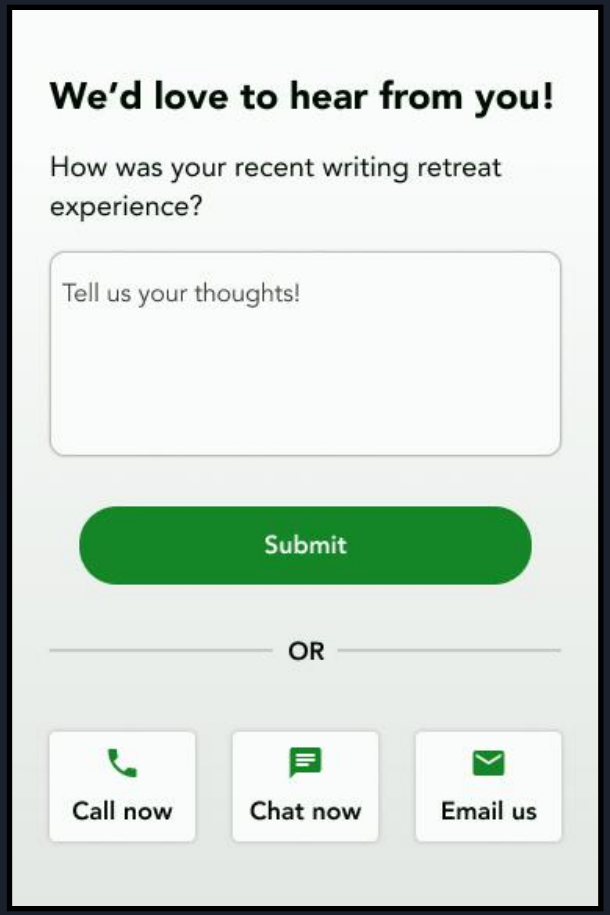


Two mobile screens with video: one with small, and one with enlarged captions





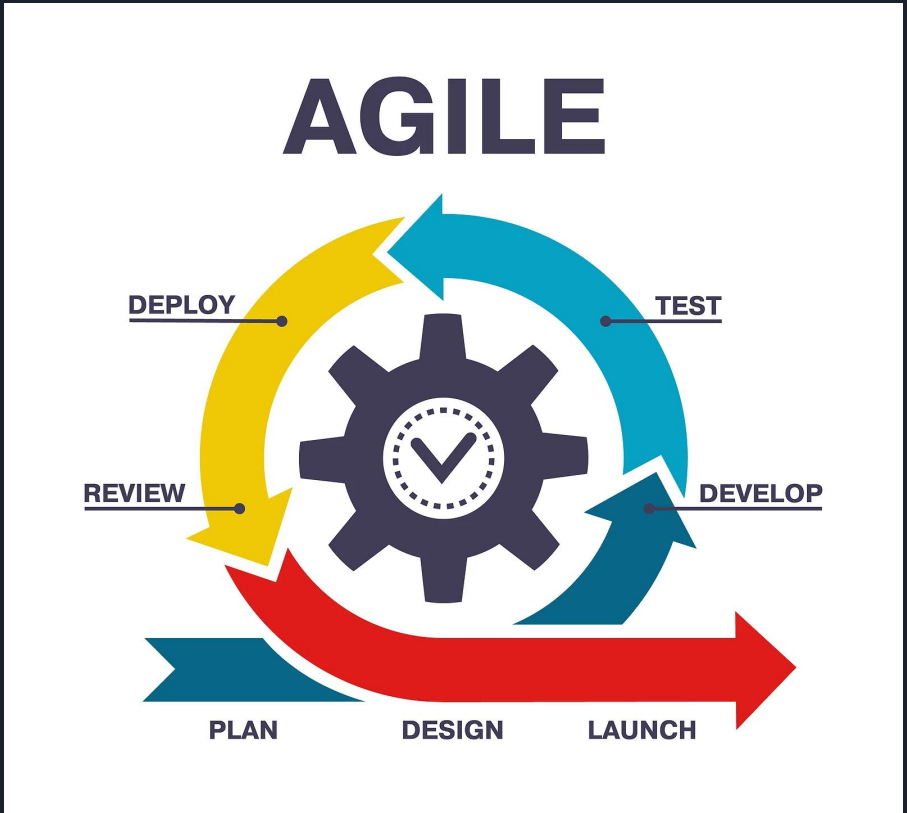
Side-by-side comparison of 2 payment screens. On the left, is a screenshot of a credit card payment screen where the hint “cardholder name” disappears upon focus. On the right, is a screenshot of a credit card payment screen with the hint “cardholder name” visible as the user types



Screenshot of a feedback screen with options to call, chat or email

Embedding Accessibility in the Agile Product Lifecycle

Why working on just design is ineffective



The agile product development lifecycle with

1. Planning
2. Design
3. Development
4. Testing
5. Deployment
6. Review

Who is responsible?
Who is accountable?

Planning

When writing user stories, consider different user needs and make sure everyone can complete the core action. Prioritize user flows and measuring engagement

Design

Primarily visual elements should have labels, mocks consider different states such as text sizes, contrasts, error states and focus order

Development

Including provisions for alt text, captions, and the needs defined in the previous two cases. Write test cases where possible

Testing

Cover as many cases as possible with automated testing, and ensure manual testing for higher-level checks that automated testing can’t cover

Deployment

Reporting and assigning failed tests to respective teams. Failing builds for tests deemed to cover key user flows

Review

Conducting user studies with people with lived experience, and having ways to to collect feedback, and a process to triage and assign fixes to responsible teams

Manual and Automated Testing

Assistive technology examples

- Auditory
  a. Hearing aids
- Visual
  a. Voice assistants
  b. Screen readers
- Motor
  a. Single-switch access
  b. Eye-tracking
  c. Voice recognition
- Mobility
  a. Wheelchairs
  b. Scooters
  c. Walkers
- Cognition
  a. Memory Aids
  b. Speech Recognition

Learning from contextual or temporary disability

Mobility
Holding a baby, driving, cooking

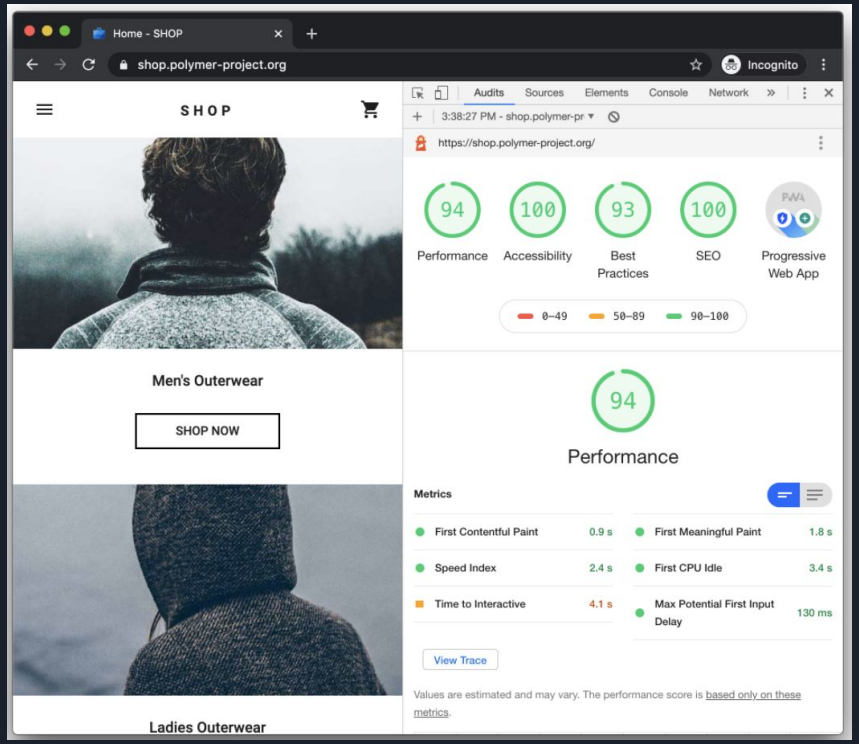
Cognitive
Stress, lack of sleep

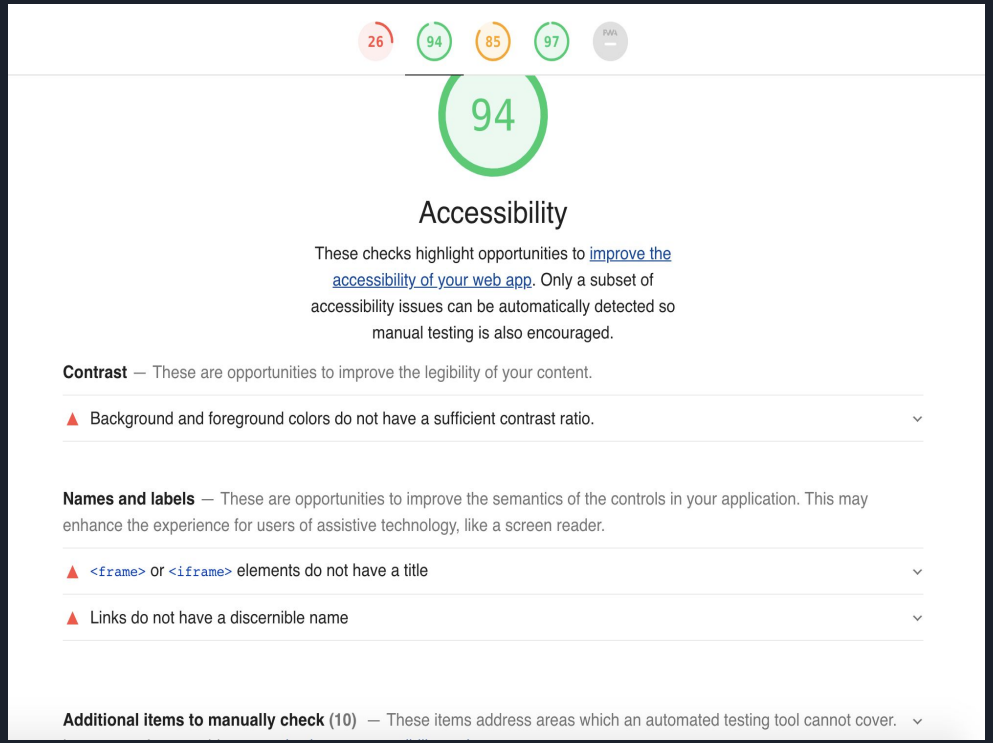
Hearing
Noisy streets, home

Visual
Glare, dark rooms

Speech
In a meeting, different language

Web Tool for Automated Testing: Example

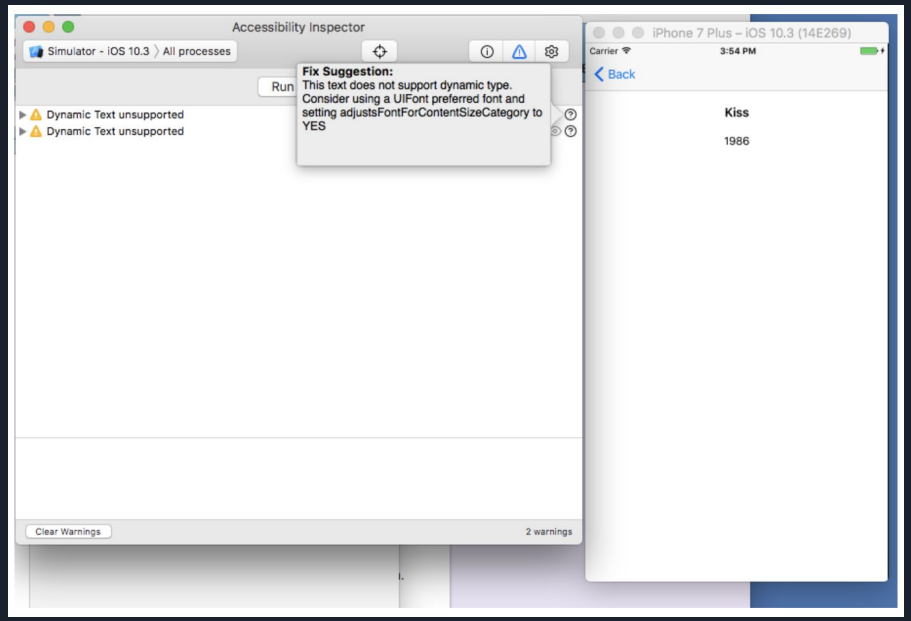




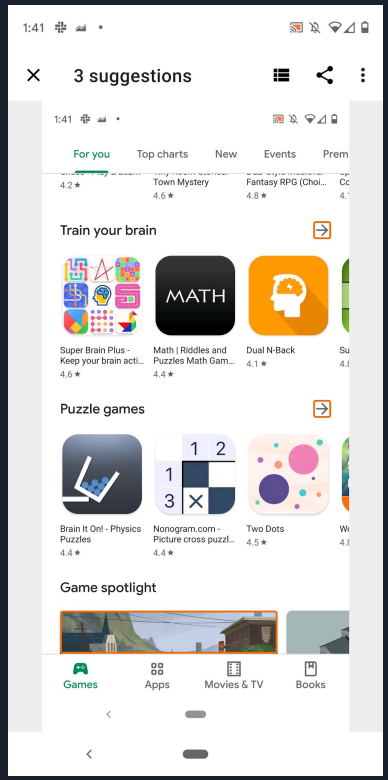
Example of Lighthouse on a website, and the resulting report

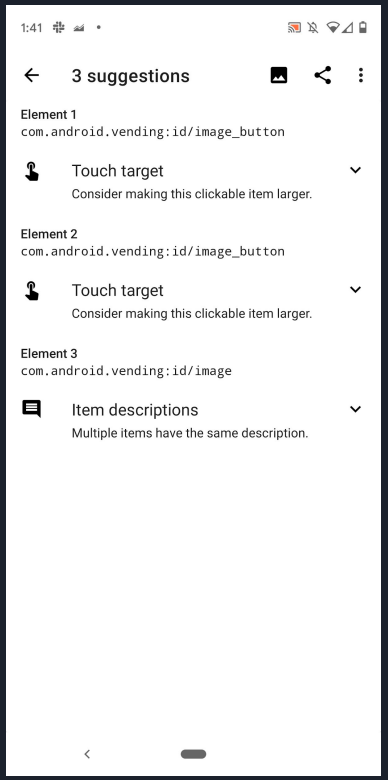
Mobile Automated Testing Tools Examples

iOS Accessibility Inspector (XCode)



Android Accessibility Scanner

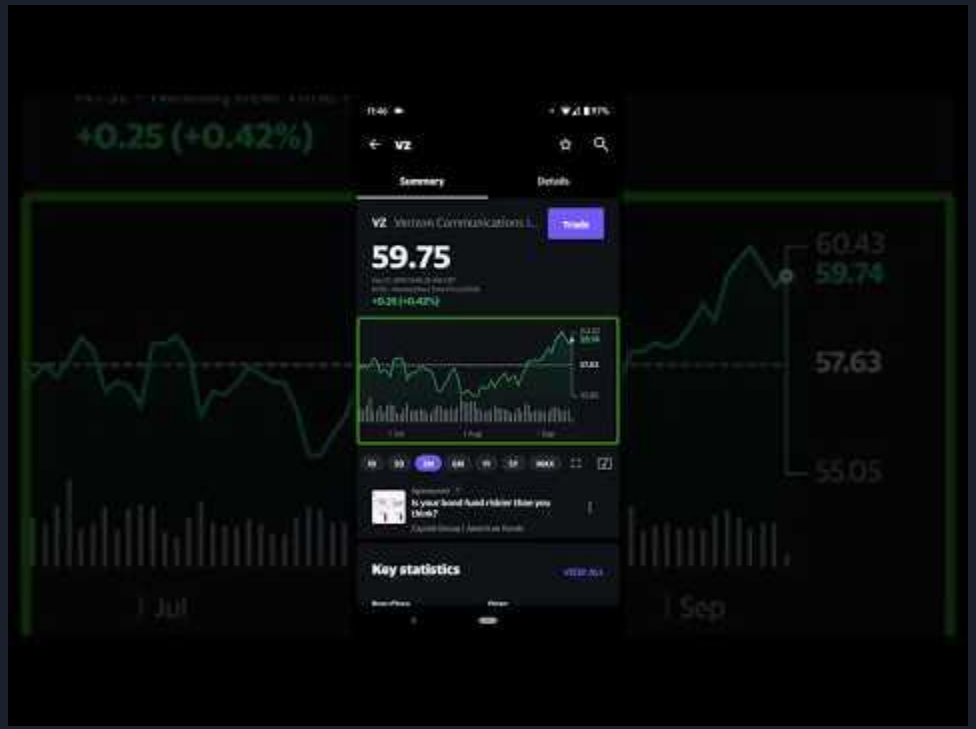




Formalizing A11Y

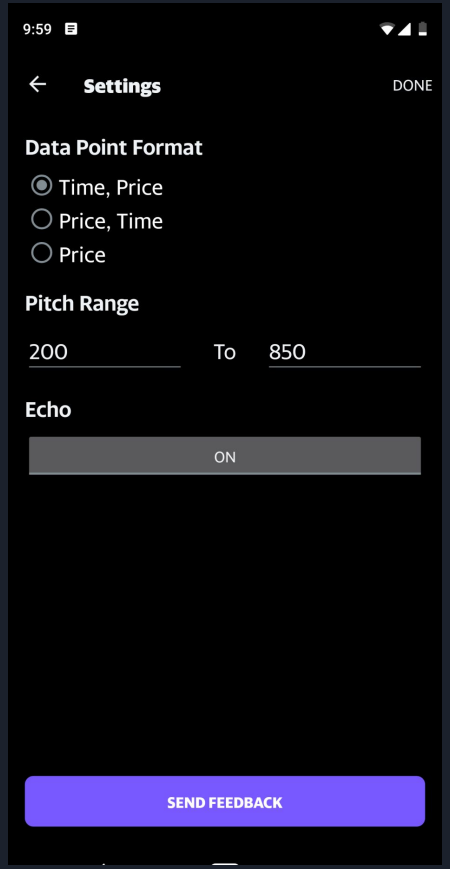
- Employee Onboarding
- Centralized Accessibility Team
- Clear rubric to prioritize and triage issues
- Part of hiring, promotions and employee evaluations

Real-world example
Beyond Compliance

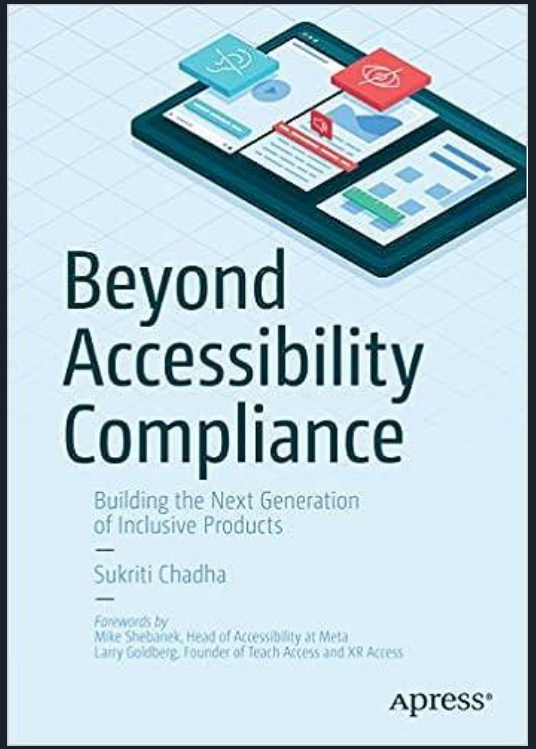


https://developer.yahoo.com/blogs/612790529269366784/

- Full screen chart
- Personalization
- Focus order of the buttons
- Points of interest
- Haptic feedback



Expanded Overview in Book



https://www.amazon.com/Beyond-Accessibility-Compliance-Generation-Inclusive/dp/1484279476

Q&A

Thank you!

Agile Alliance PRESENTS

Agile ORLANDO
JULY 24-28 2023

Join Agile Alliance today!

Become an Agile Alliance member and help support our non-profit mission, while gaining access to valuable benefits like online events, in-person conference discounts, and event session videos.

#AGILE2023