



# Removing Bias with Wizard of Oz Screen Reader Usability Testing

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# Introductions

**Annabel Weiner, CPACC**  
She/Her  
Sr. Inclusive Design Specialist  
Ally

**Courtney Benjamin**  
She/Her  
Sr. A11y Testing Process Analyst  
Ally

**Tim Harshbarger**  
He/Him  
Sr. Accessibility Consultant  
Deque Systems

A large teal circular graphic, possibly a stylized letter 'C' or a partial circle, is located in the top right corner of the slide.

**how can we test  
screen reader usability  
before a site is developed?**

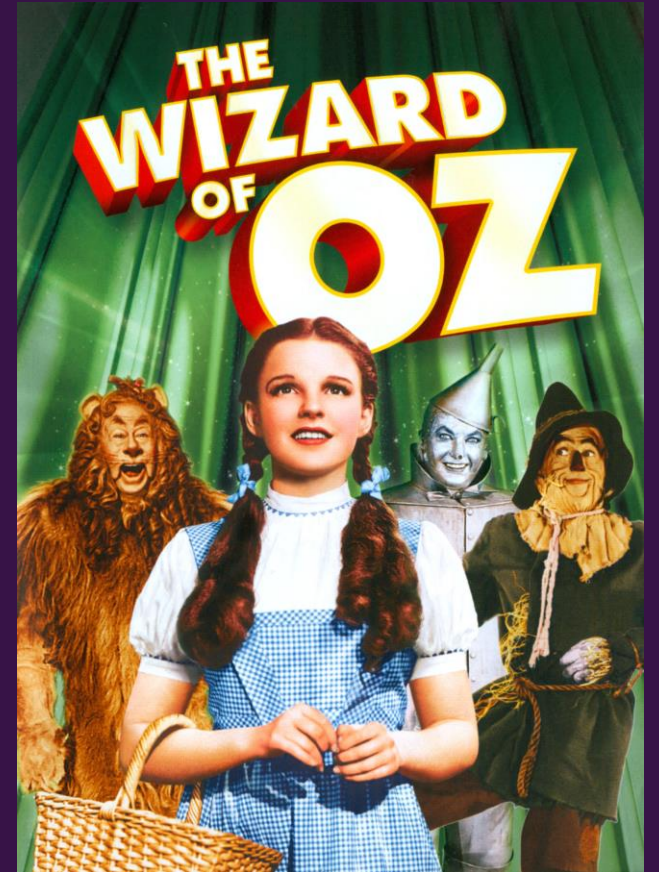
**accessibility conformance  
does not guarantee  
a good user experience.**



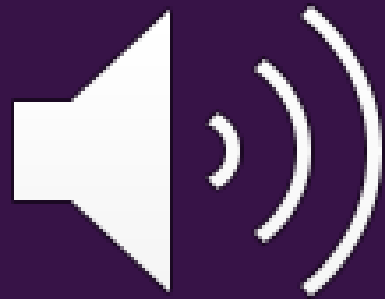
# what is a **wizard of oz** test?

“Wizard of Oz (WoZ) is a method where participants interact with a system that they believe to be autonomous, but in reality, is controlled by an unseen human operator in the next room. It's a fantastic way to explore the experience of a complex, responsive system before committing resources and development time to actually build that system.”

- AnswerLab.com

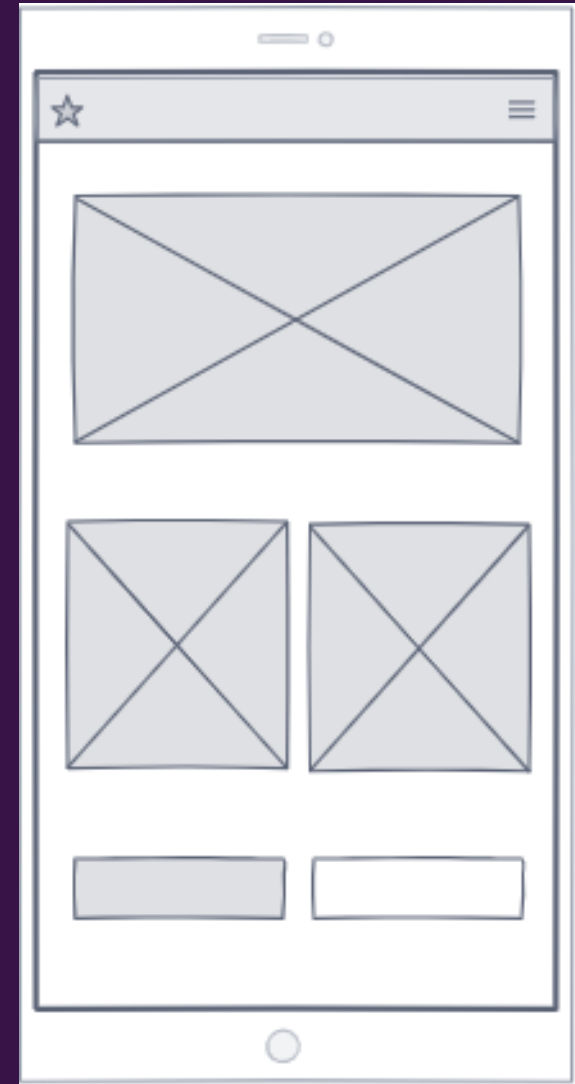


**Listen**



# setting the scene

“We have a partially functioning prototype – it’s not a real site that is built out yet but something that’s in the early design phase.”



# building the test

## Headings

Heading level 1 Snapshot

Heading level 2 Investment Accounts

Heading level 2 Bank Accounts

## Tables

Information about your Ally Self -Directed Investment Account, table 5 columns 3 rows

Information about your Ally Bank accounts *interest checking*, table 5 columns 3 rows

Information about your Ally Bank accounts *online savings*, table 5 columns 3 rows

Information about your Ally Bank accounts CDs, table 5 columns 4 rows

## Landmarks

Innovative options make reaching your goals possible

Main navigation

Contact us navigation

Main

Footer

## Links

Skip to main

Explore all the ways you can grow with us

Ally Invest

CDs

Buy a Home

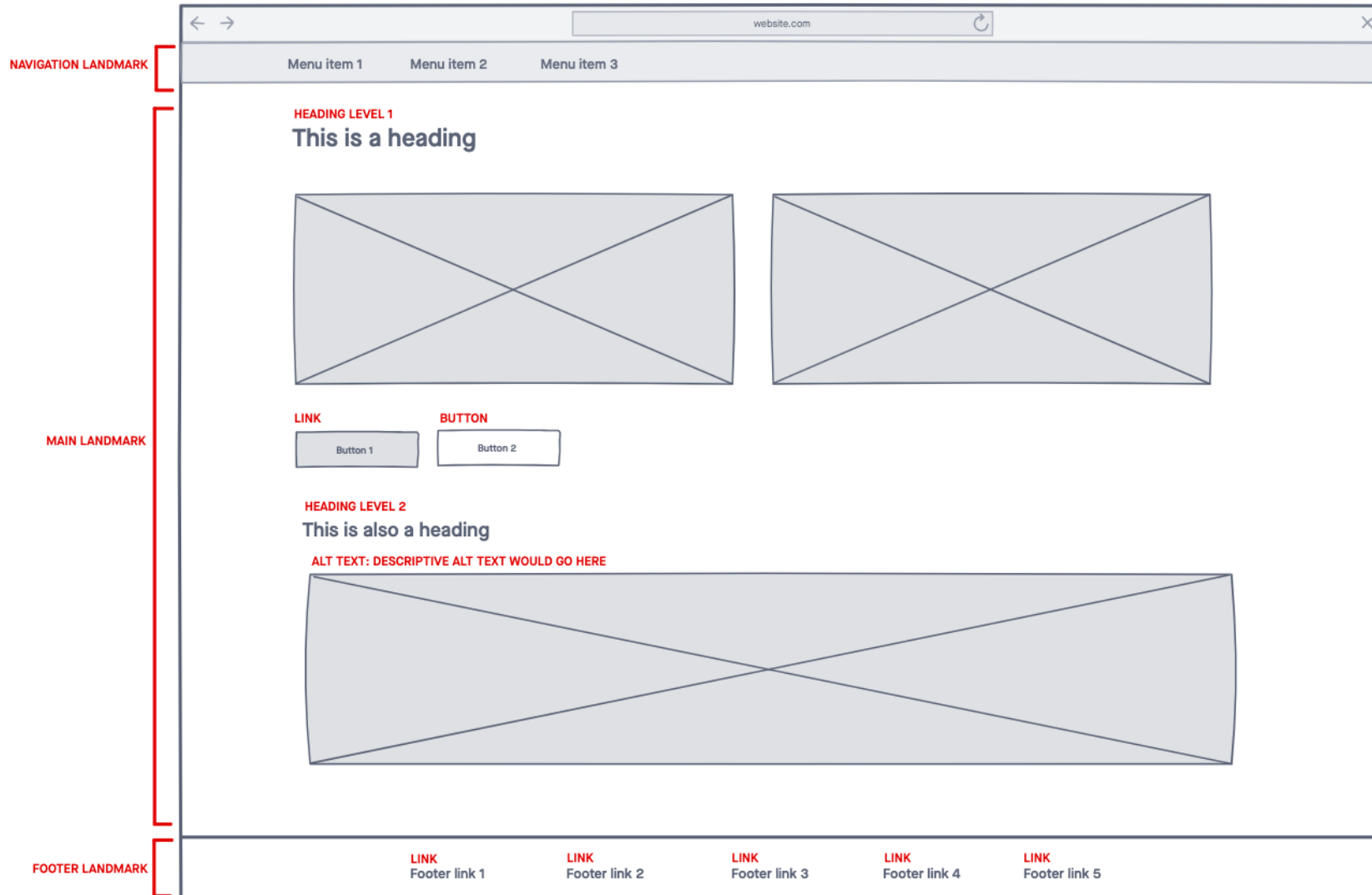
Open an Account

Ally logo

Accounts. collapsed



# prototype with **ally** annotations



# using **adobe XD**



The screenshot displays the Adobe XD interface in the Prototype mode. The top menu bar includes options for Design, Prototype, and Share. The current project is named 'axe-con demo'. The left sidebar shows a component list for an 'IPHONE 12 PRO MAX - 2' screen, including 'Component 1 - 2' and 'interest checking' with various text and rectangle elements. The main canvas shows a prototype of an iPhone screen with the text 'Interest Checking' in a large, purple font, enclosed in a red border. A blue line with a plus sign and a lightning bolt icon connects the text to the right sidebar. The right sidebar shows the 'INTERACTION' panel with a 'Trigger' set to 'Tap' and an 'ACTION' panel with a 'Type' set to 'Speech Playback', a 'Voice' set to 'Joanna', and a 'Speech' text area containing 'Interest Checking, heading level 1'.

Design Prototype Share

axe-con demo

299.7%

INTERACTION ⓘ

Trigger

Tap

ACTION ⓘ

Type

Speech Playback

Voice

Joanna

Speech

Interest Checking, heading level 1

IPHONE 12 PRO MAX - 2

Component 1 - 2

interest checking

\$2.00

Rectangle 68

\$100.00

Rectangle 67

\$100.00

Rectangle 66

Rectangle 41

Rectangle 39

Rectangle 38

Interest Checking

# being the **wizard**

## Getting into the Mindset

- Taking on a robotic persona

## Voice Considerations

- Volume level
- Clarity
- Consistency
- Pre-recorded content



# unplanned **scenarios**

- Unexpected routes taken
- Very specific key commands requested
  - Pausing to ask user for clarification if necessary

# challenges as the **wizard**

- Different hot key possibilities and different screen readers
- Differing expectations for screen reader behavior
- Switching between listening for participants keyboard commands and listening to their dialogue about their thought process
- Participants who weren't comfortable voicing the screen reader commands

# being a participant

- Important to listen carefully, like with normal screen readers
- Remember to talk about your thoughts as you navigate
- Describe what you would expect to happen when something sounds off
- It's okay to have the task repeated as many times as needed



# challenges

- Participants getting caught up on screen reader language and inconsistencies



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- Time to create and practice for the test
- Some screen reader command limitations (ex. Specific Table modes, and link searches)
  - Insert + space + T
  - Insert F7
- Can't replicate custom screen reader settings



# general **takeaways**

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- Majority of participants picked up the concept easily
- Helpful to have a separate wizard and moderator

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- Make it clear when users need to select a “save” or “submit” button
- Don’t make users listen too much before hearing the role
- In a multi-step flow, give announcements when a task is completed

# tips for creating **wizard of oz** test

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- Be flexible. You'll likely go back and forth between having a conversation with participants and having them voice key commands
- If you have time, practice with someone who isn't familiar with the prototype or project, like someone on a different testing or QA team. If practicing with sighted users, ask them to dim the screen.



**questions?**