Agile ORLANDO
2023
JULY 24–28

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#AGILE2023

LEARN MORE

Dylan Barrell

Agile Accessibility for Good

the ability to customise the space for the need of Scrum Team

supporting verbal communication

cellular office arrangements

neighbourhood window or artificial window

support collective mind

SOCIAL

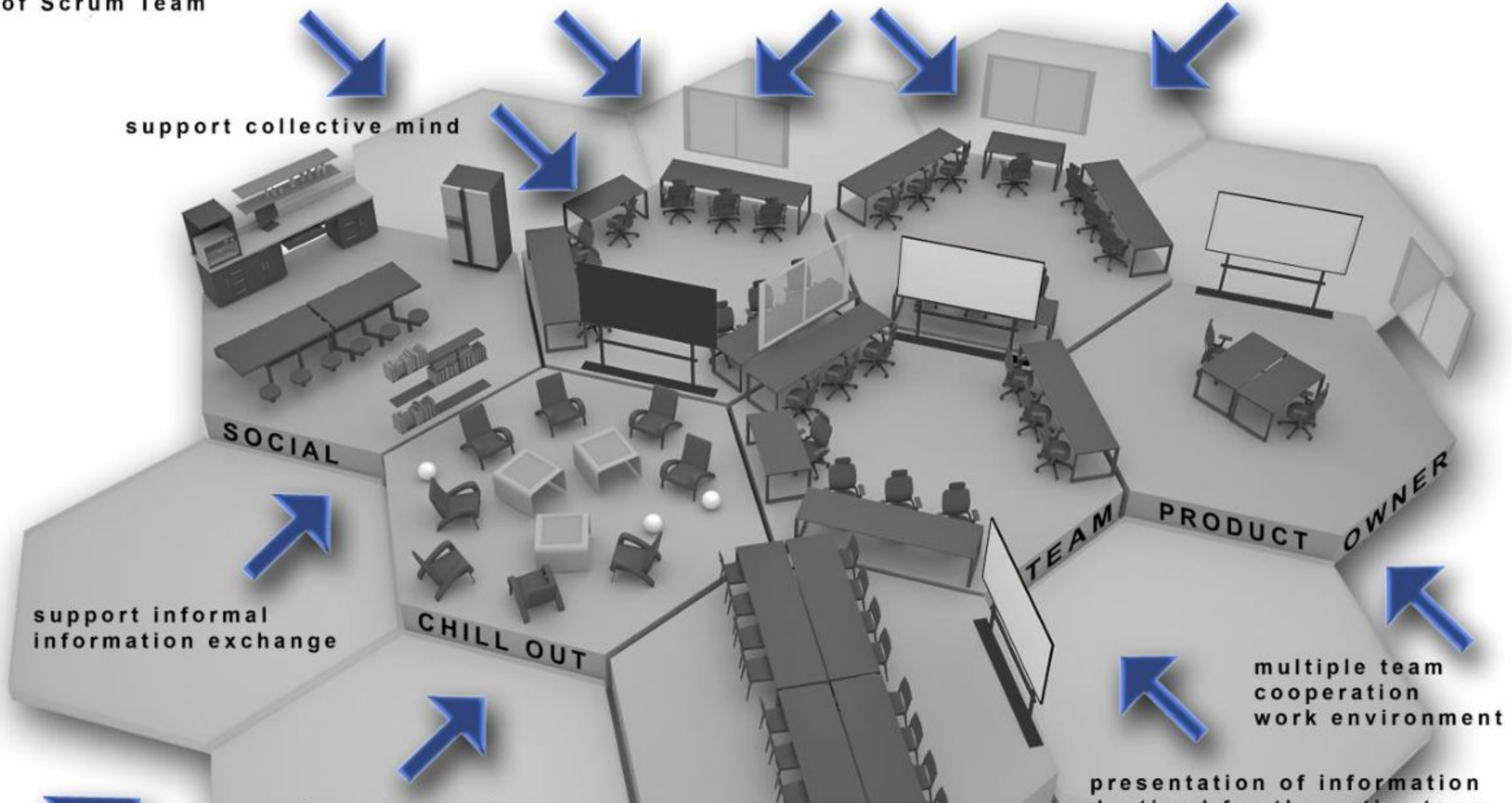support informal information exchange

CHILL OUT

TEAM PRODUCT OWNER

multiple team cooperation work environment

presentation of information
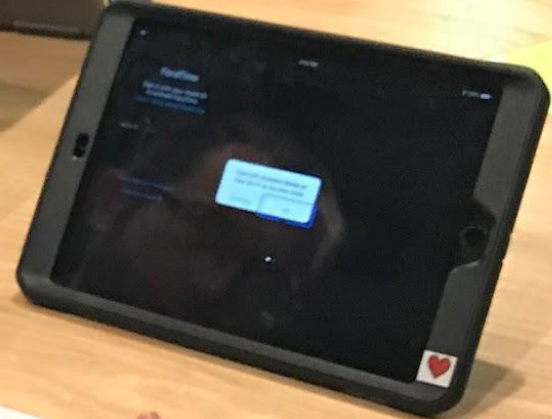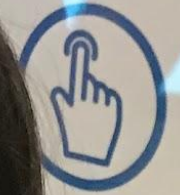
Motor Disabilities

5 Transformation Practices

1. Create a central team to manage the transformation.
2. Make high-quality learning resources available and integrate these into onboarding.
3. Form a team of accessibility coaches to coach agile teams.
4. Create an accessibility dashboard to measure progress.
5. Execute an ongoing awareness program to drive motivation.

Legend:
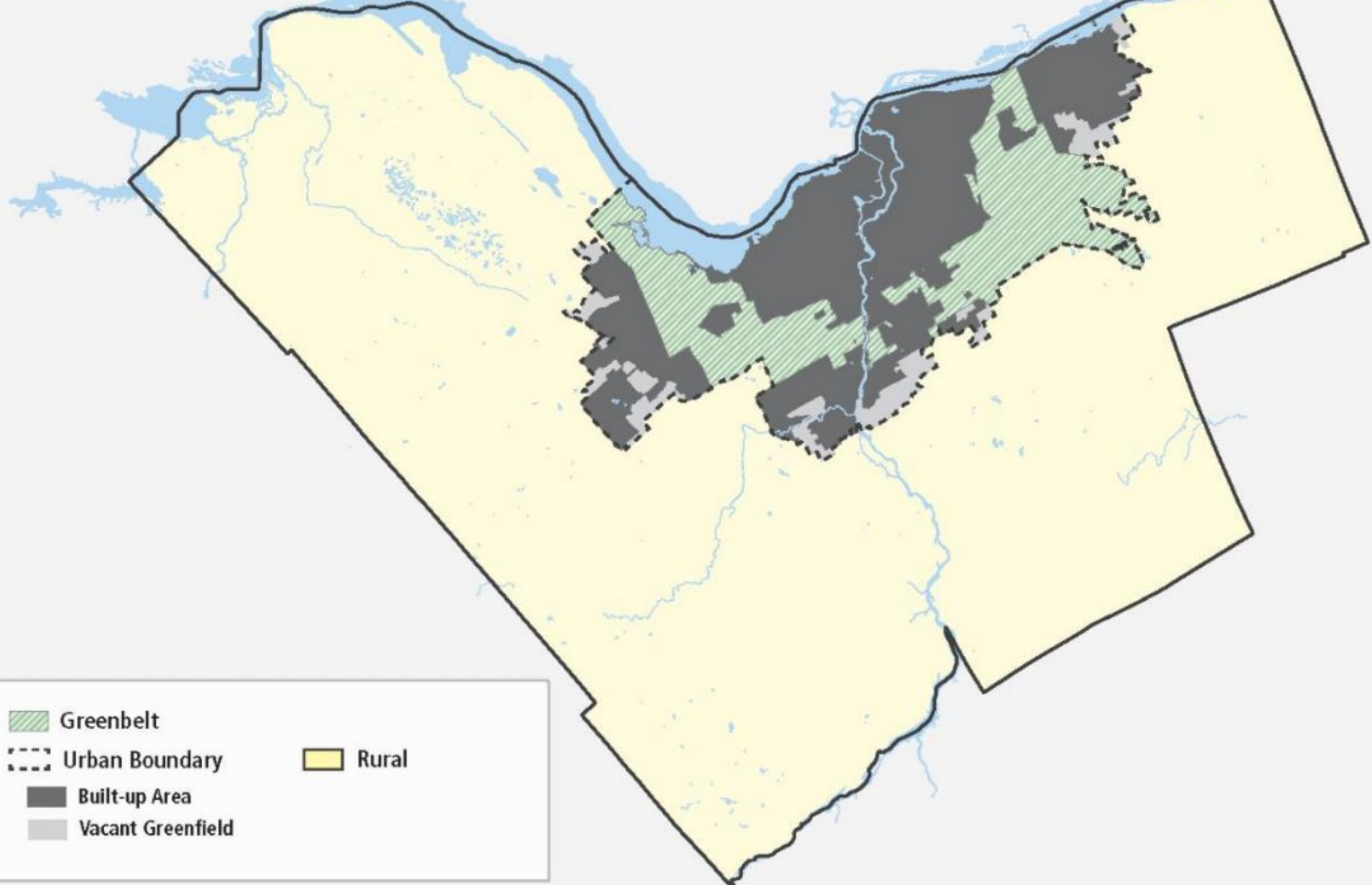
- Greenbelt
- Urban Boundary
- Built-up Area
- Vacant Greenfield
- Rural

Meet Lucy (as an inclusive persona)

Age
33

Occupation
Event organizer

Family
Long-term relationship
(no kids)

Location
Chicago, IL

Goals

- Figure out what her ideal steps-per-day goal should be
- Find more ways to be motivated to be healthy, using the tracker
- Find a tracker that has really good audio and haptic feedback

Frustrations

- Sometimes too busy to remember to charge it and loses steps
- The wristbands come loose over time and don't feel as nice
- When she wants to see her tracker data, she HAS to use the app

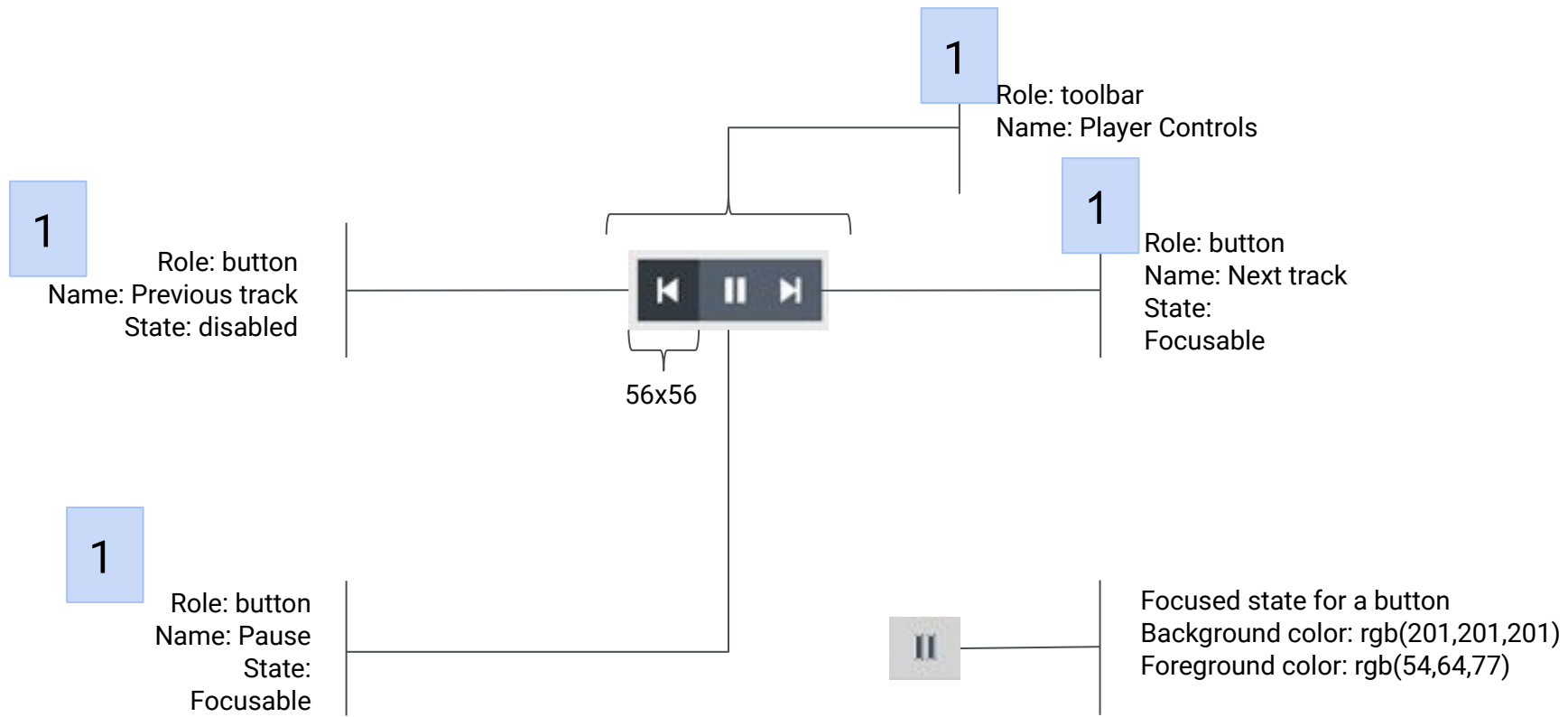" *I want to still be able to access my tracker data when I don't have my phone on me.*

Particularity
Lucy was born blind and relies on screen readers and haptic and audio feedback.

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Design Communication

Design Communication

1

Role: toolbar
Name: Player Controls

1

Role: button
Name: Next track
State:
Focusable

1

Role: button
Name: Previous track
State: disabled

56x56

1

Role: button
Name: Pause
State:
Focusable

Focused state for a button
Background color: rgb(201,201,201)
Foreground color: rgb(54,64,77)

Interaction for role=button

Keyboard: SPACE or ENTER equals click
Disabled buttons cannot receive focus
Disabled buttons do not respond to a click/touch

Interaction for the entire component

When on first track: disable "previous track" button
When on last track: disable "next track" button
When playing, display the "pause" button and hide the "play" button
When not playing: display the "play" button and hide the "pause" button
After clicking "play", place focus on the "pause" button
After clicking "pause" place focus on the "play" button

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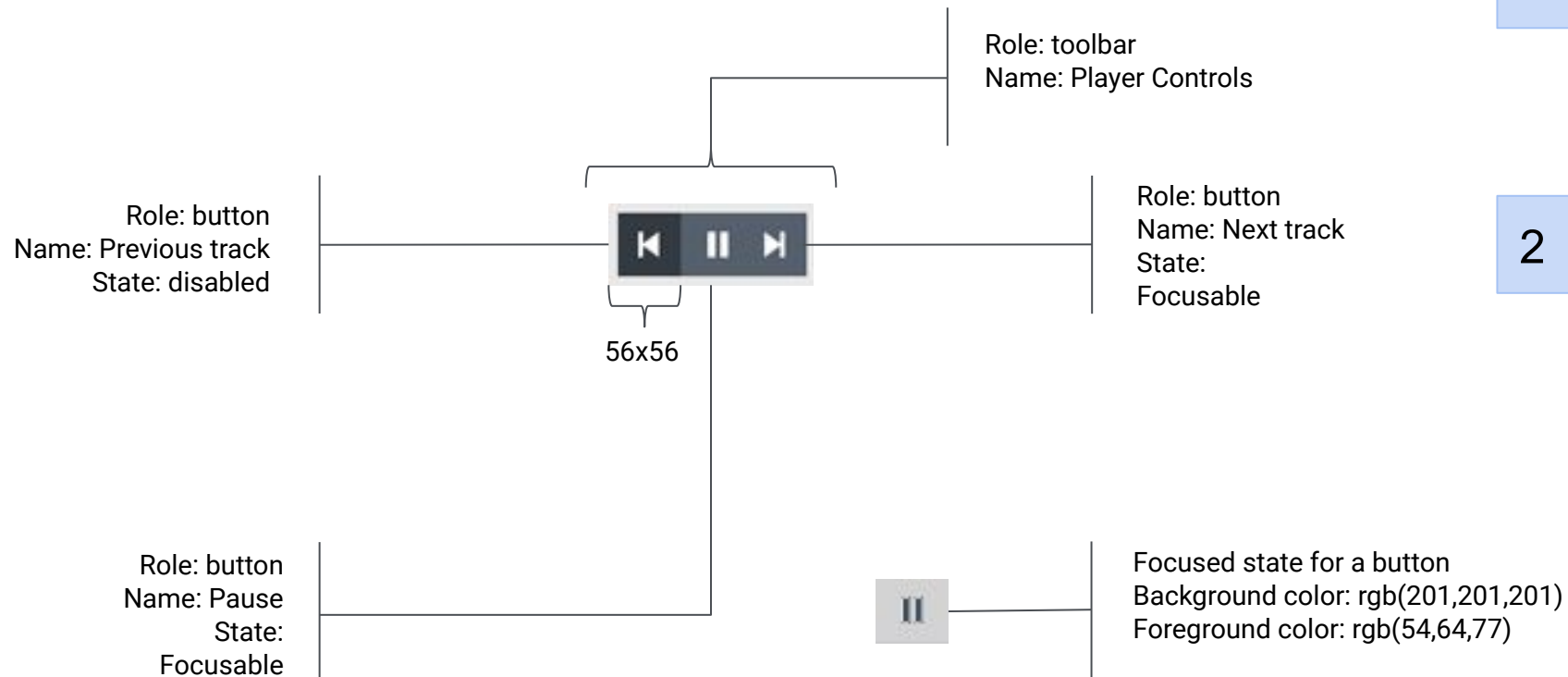
2 Interaction for role=button

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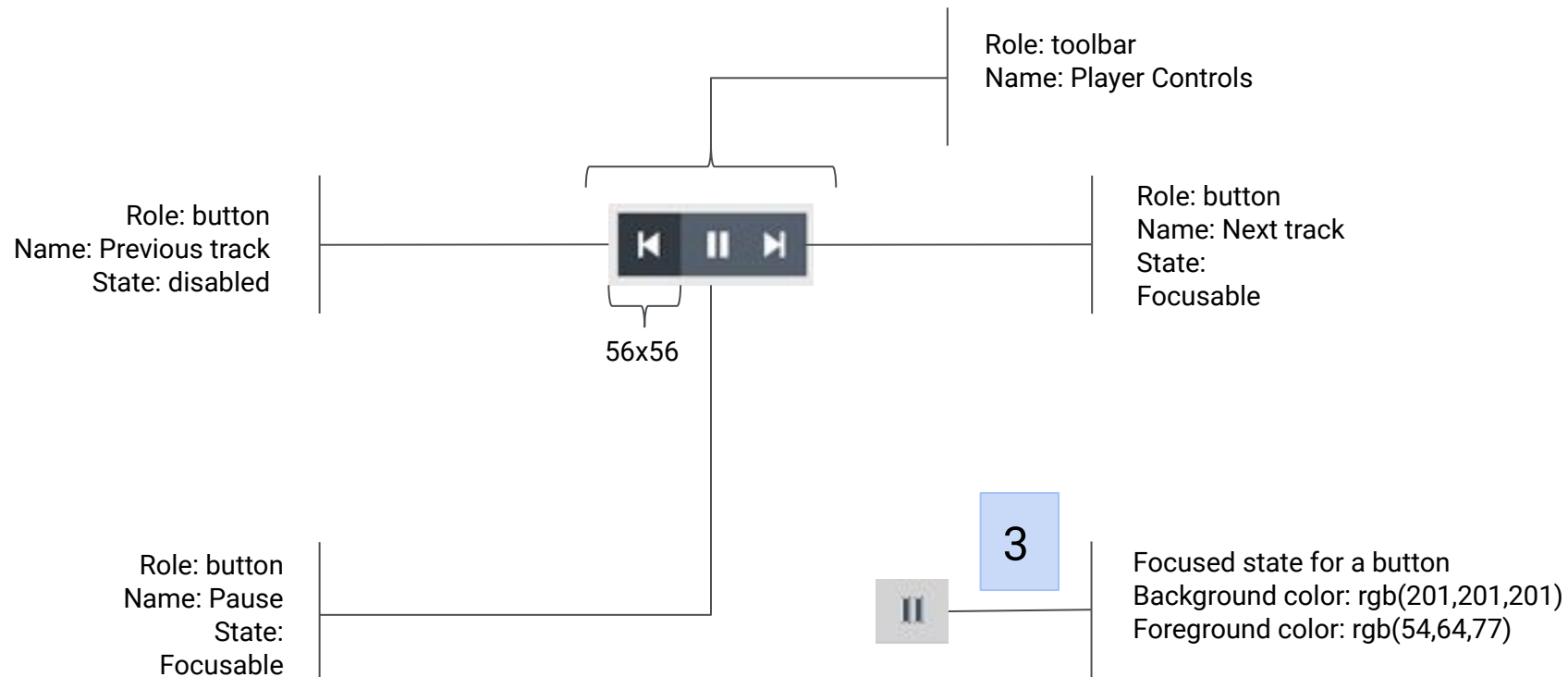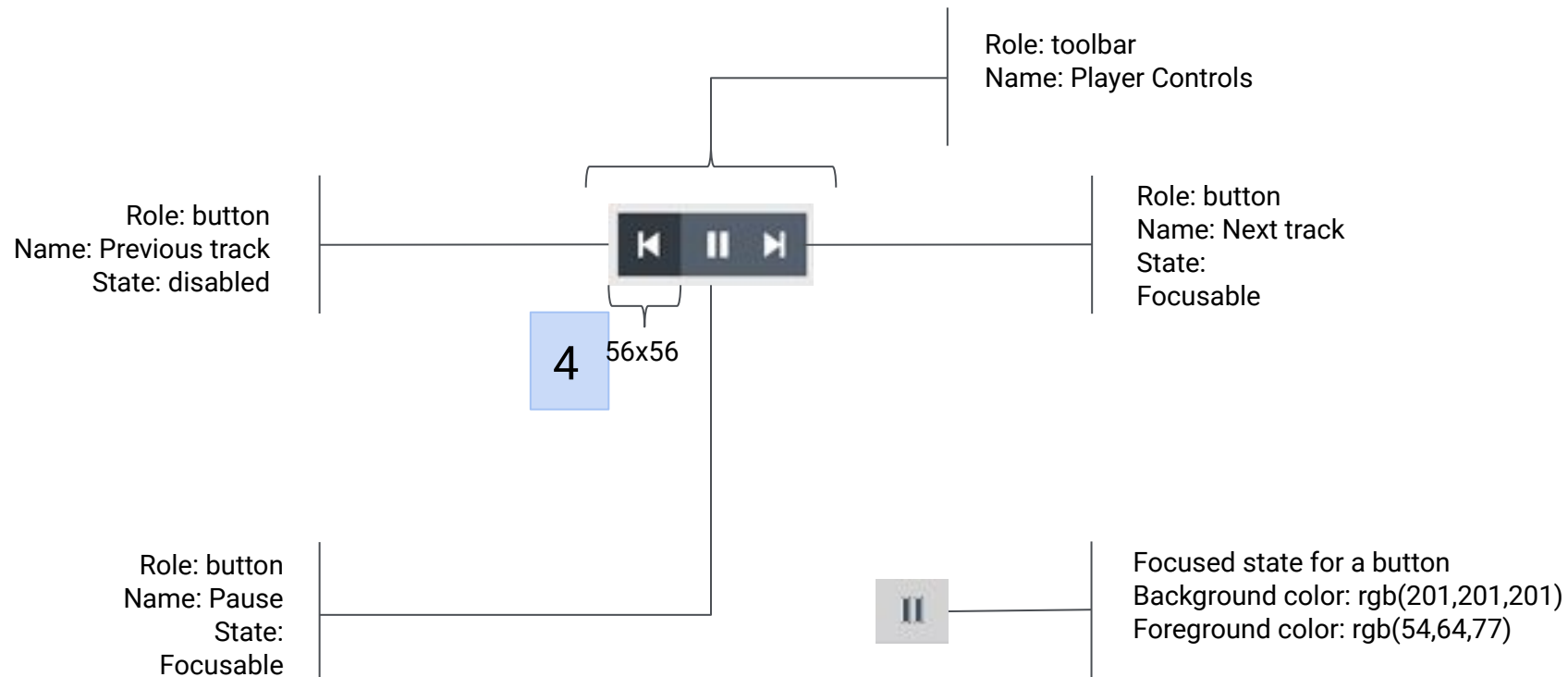Disabled buttons do not respond to a click/touch

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4 56x56

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Other Myths

- Accessibility testing cannot be automated
- Accessibility testing is usability testing

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Accessibility automation

powered by **Deque**

downloads 874M

# No code merges until #axeClean!

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Shift Left Manual Testing

- Test with kayboard/assistive technology
- Fix issues that are found
- write unit and/or end-to-end tests for regression testing

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Alternative to manual testing

Semi-automated tools like axe DevTools Pro's Intelligent Guided Tests can find up to 80% of the most common accessibility problems without requiring any accessibility specialist knowledge.

- Start a test
- Answer questions about your application
- Uses heuristics and AI to find issues
- Captures all information with screenshots for easy fixing or sharing

Table

Keyboard

Modal Dialog

Interactive Elements

Structure

Images

Forms
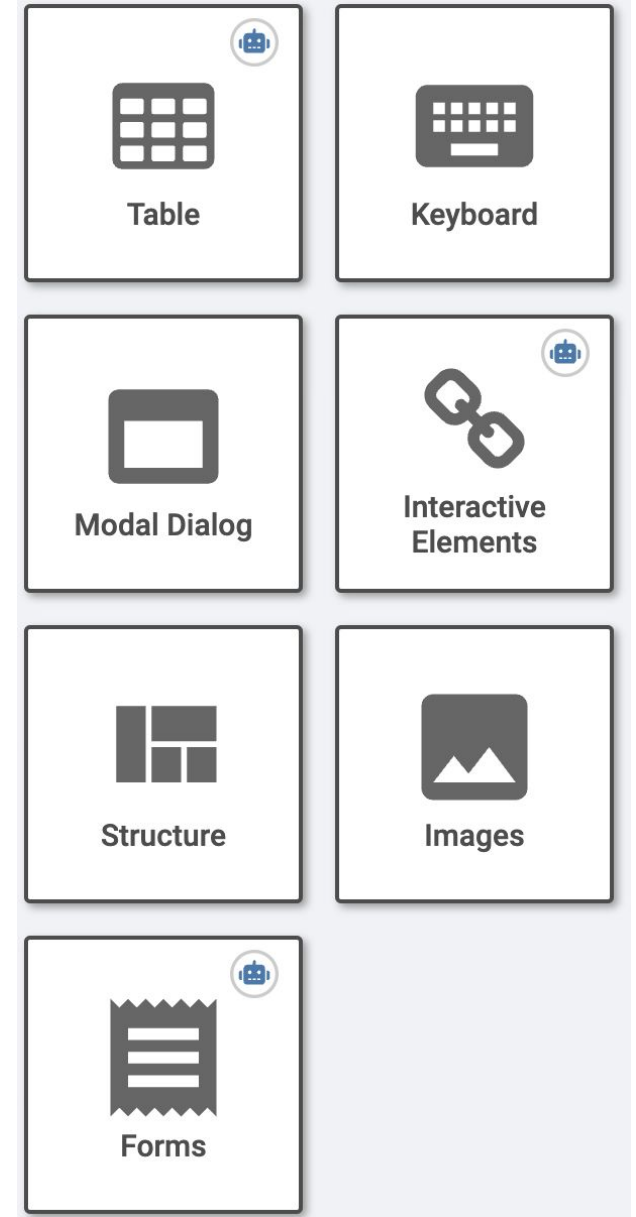
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Assertions for semantics or alternative text

```
// Check the Deque Logo
cy.get('img[src="logo.png"]')
  .should('exist')
  .and('have.attr', 'alt', 'Deque Logo')
```

Testing complex device interactions

```
// Test ARIA menu keyboard wraparound
// when on first menu item, left arrow wraps to last menu item
cy.focused().type('{leftarrow}')
cy.focused().should('have.attr', 'id', 'last-element')

// when on last menu item, right arrow wraps to first menu item
cy.focused().type('{rightarrow}')
cy.focused().should('have.attr', 'id', 'first-element')
```

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Accessibility Coaches

1. Work with the team on achievable improvement milestones
   a. milestone 1: all new UI code will be axe clean before merge
   b. milestone 2: all new UI code will also have automated tests for keyboard
   c. …
2. Help team create a dashboard to measure progress
3. Perform spot checks on new work
4. Attend sprint retrospectives
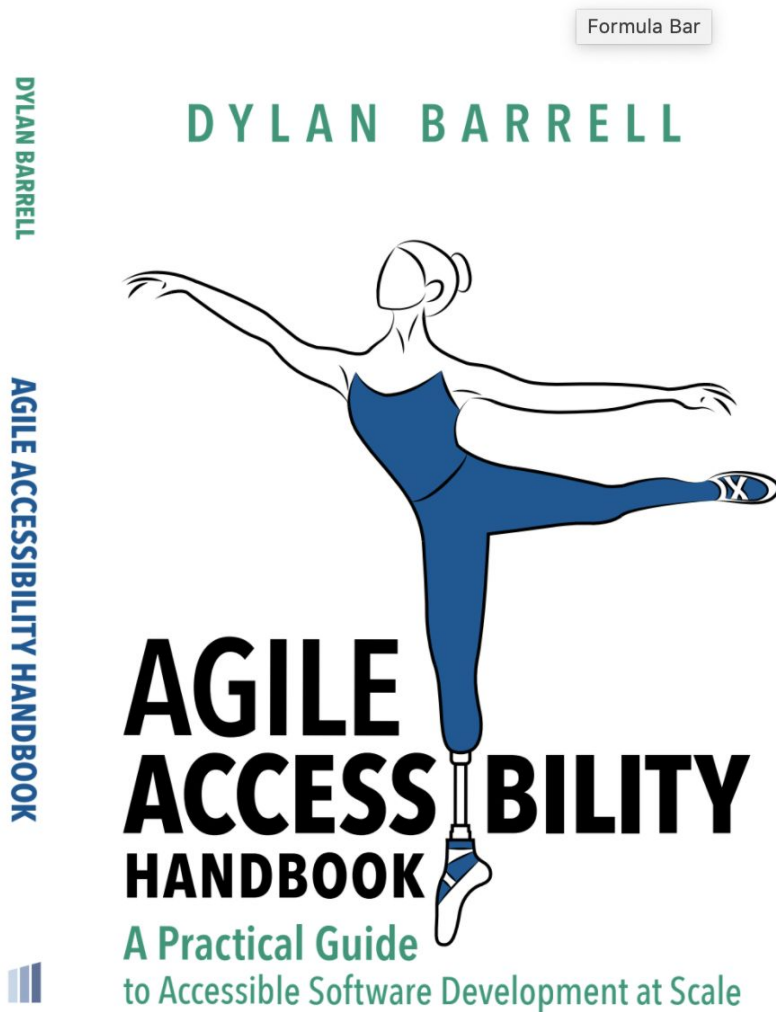5. Identify and execute on skills improvement opportunities

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Team Practices

1. Participate in empathy (awareness) events
2. Include users with disabilities in UX design
3. Communicate design intent
4. Create a pattern library
5. Leverage an accessibility automation library
6. Automate device and assistive technology testing
7. Manage accessibility defects systematically
8. Measure progress
9. Include accessibility in retrospectives

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Transformation Practices

1. Create a central team to manage the transformation
2. Obtain executive buy-in
3. Create and enforce an accessibility policy
4. Report on your accessibility transformation progress
5. Form a team of accessibility coaches to coach agile teams
6. Execute an empathy program to drive motivation
7. Make high-quality learning resources available and integrate these into onboarding

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The Agile Accessibility Handbook

Formula Bar

DYLAN BARRELL

AGILE ACCESSIBILITY HANDBOOK

AGILE
ACCESSIBILITY
HANDBOOK
A Practical Guide
to Accessible Software Development at Scale

- available in the Agile book store
- nine team practices
- seven organizational practices

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