

# Accessibility Best Practices in Storyline

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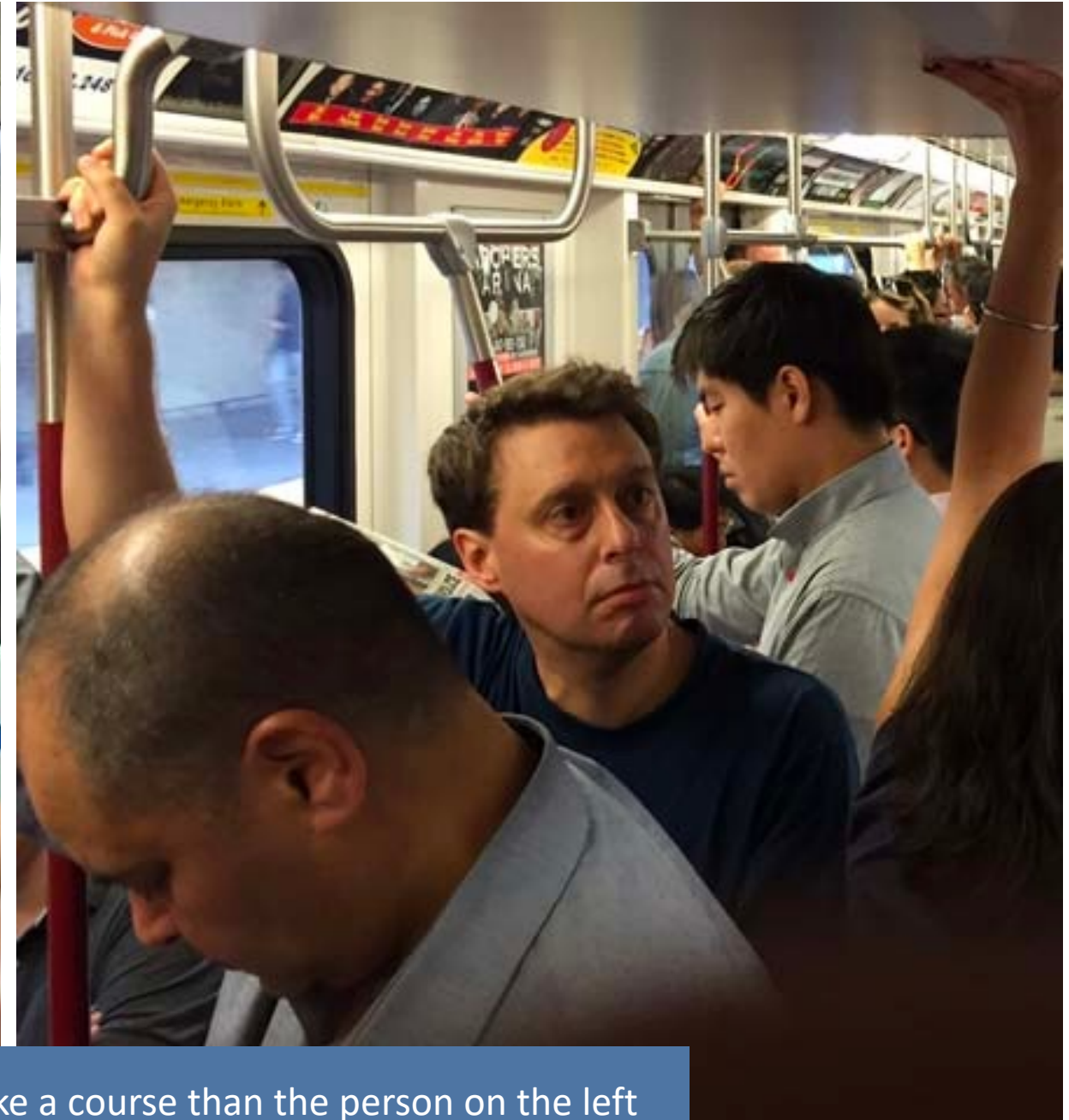
*@staghioff*

A person wearing a blue hoodie is seen from behind, sitting on a grassy bank and looking out over a calm lake at night. The sky is filled with stars, and the Milky Way galaxy is visible as a bright, hazy band of light stretching across the upper left portion of the frame. The dark silhouettes of a forest line the opposite shore, and their reflection is visible in the still water. The overall scene is peaceful and contemplative.

How to think.



## Challenging Perceptions



In this moment, the person on the right is less able to take a course than the person on the left



Disability as a Personal Attribute

Disability as Contextual

Permanent    Temporary    Situational

Touch



One arm



Arm injury



New parent

See



Blind



Cataract



Distracted driver

Hear



Deaf



Ear infection



Bartender

Speak



Non-verbal



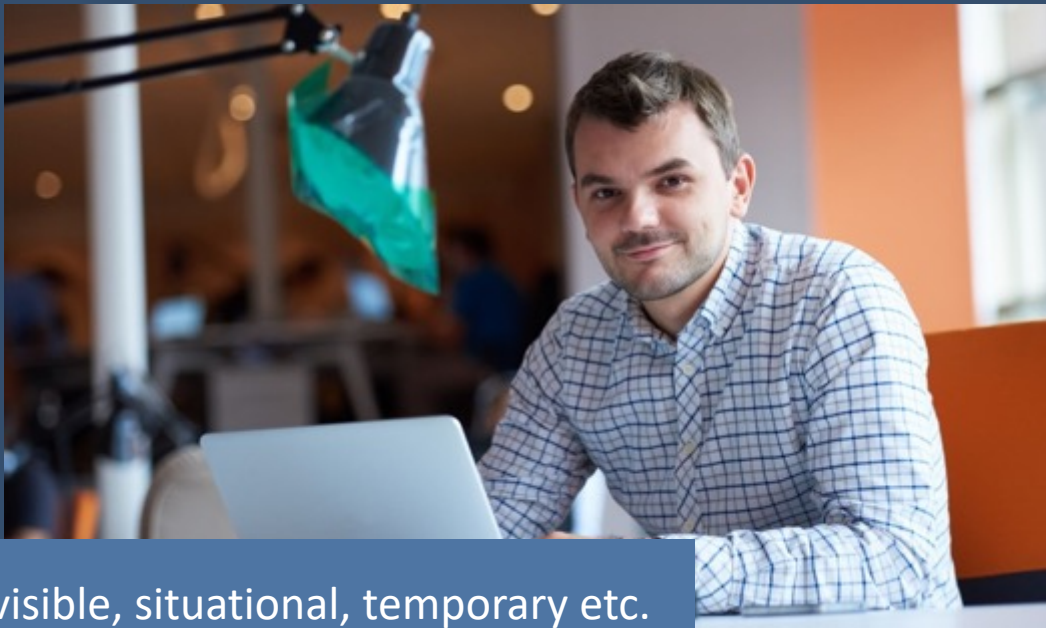
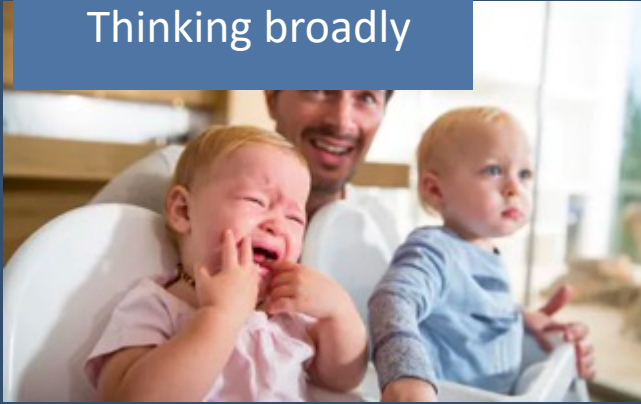
Laryngitis



Heavy accent

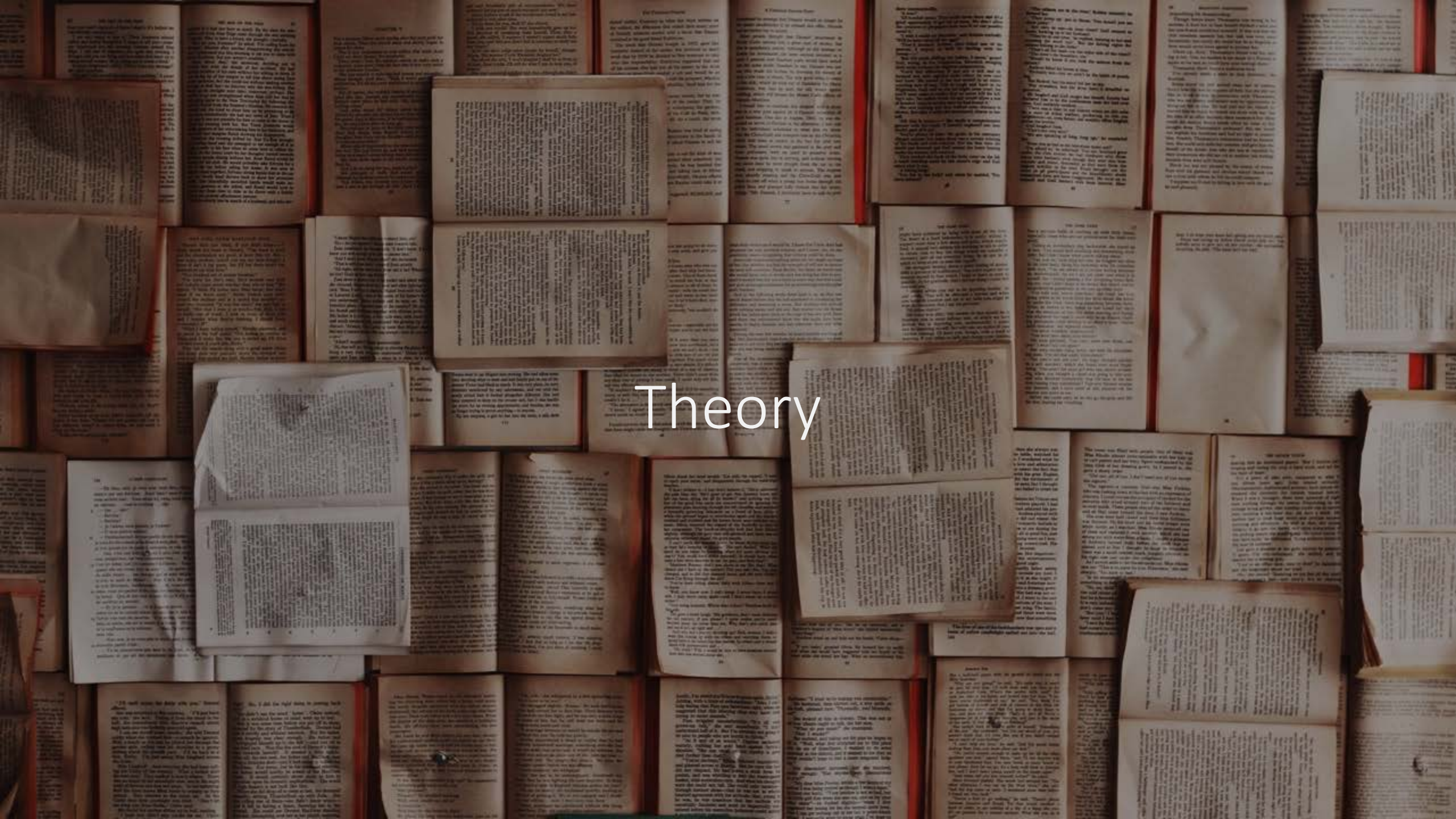


Thinking broadly



Accessibility needs may be invisible, situational, temporary etc.





# Theory



## 1. Perceivable

### 1.1 Text Alternatives

#### 1.1.1 Non-text Content

### 1.2 Time-based Media

#### 1.2.1 Audio-only and Video-only (Prerecorded)

#### 1.2.2 Captions (Prerecorded)

#### 1.2.3 Audio Description or Media Alternative (Prerecorded)

#### 1.2.4 Captions (Live)

#### 1.2.5 Audio Description (Prerecorded)

#### 1.2.6 Sign Language (Prerecorded)

#### 1.2.7 Extended Audio Description (Prerecorded)

#### 1.2.8 Media Alternative (Prerecorded)

#### 1.2.9 Audio-only (Live)

### 1.3 Adaptable

#### 1.3.1 Info and Relationships

#### 1.3.2 Meaningful Sequence

#### 1.3.3 Sensory Characteristics

#### 1.3.4 Orientation

#### 1.3.5 Identify Input Purpose

#### 1.3.6 Identify Purpose

### 1.4 Distinguishable

#### 1.4.1 Use of Color

#### 1.4.2 Audio Control

#### 1.4.3 Contrast (Minimum)

#### 1.4.4 Resize text

#### 1.4.5 Images of Text

#### 1.4.6 Contrast (Enhanced)

#### 1.4.7 Low or No Background Audio

## 1.3.2 Meaningful Sequence — Level A

When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.

Understanding 1.3.2

▼ Hide techniques and failures for 1.3.2

✓ Sufficient

✓ Advisory

✓ Failures

### Sufficient Techniques

Note: Other techniques may also be sufficient if they meet the success criterion. See [Understanding Techniques](#).

- G57: Ordering the content in a meaningful sequence
- Marking sequences in the content as meaningful **AND** G57: Ordering the content in a meaningful sequence *using one of the following techniques:*
  - H34: Using a Unicode right-to-left mark (RLM) or left-to-right mark (LRM) to mix text direction inline
  - H56: Using the dir attribute on an inline element to resolve problems with nested directional runs
  - C6: Positioning content based on structural markup
  - C8: Using CSS letter-spacing to control spacing within a word
- C27: Making the DOM order match the visual order
- FLASH15: Using the tabIndex property to specify a logical reading order and a logical tab order in Flash
- PDF3: Ensuring correct tab and reading order in PDF documents
- SL34: Using the Silverlight Default Tab Sequence and Altering Tab Sequences With Properties

### Advisory Techniques

- Using left-justified text for languages that are written left to right and right-justified text for languages that are written right-to-left (future link)
- Providing a link to linearized rendering (future link)
- Providing a style switcher between style sheets that affect presentation order (future link)

### Failures

- F1: Failure of Success Criterion 1.3.2 due to changing the meaning of content by positioning information with CSS
- F32: Failure of Success Criterion 1.3.2 due to using white space characters to control spacing within a word
- F33: Failure of Success Criterion 1.3.1 and 1.3.2 due to using white space characters to create multiple columns in plain text content
- F34: Failure of Success Criterion 1.3.1 and 1.3.2 due to using white space characters to format tables in plain text content
- F18: Failure of Success Criterion 1.3.2 due to using an HTML layout table that does not make sense when linearized

The WCAG – Overwhelming for beginners!



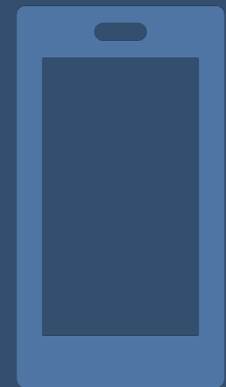
# WCAG – Make it POUR

Perceivable

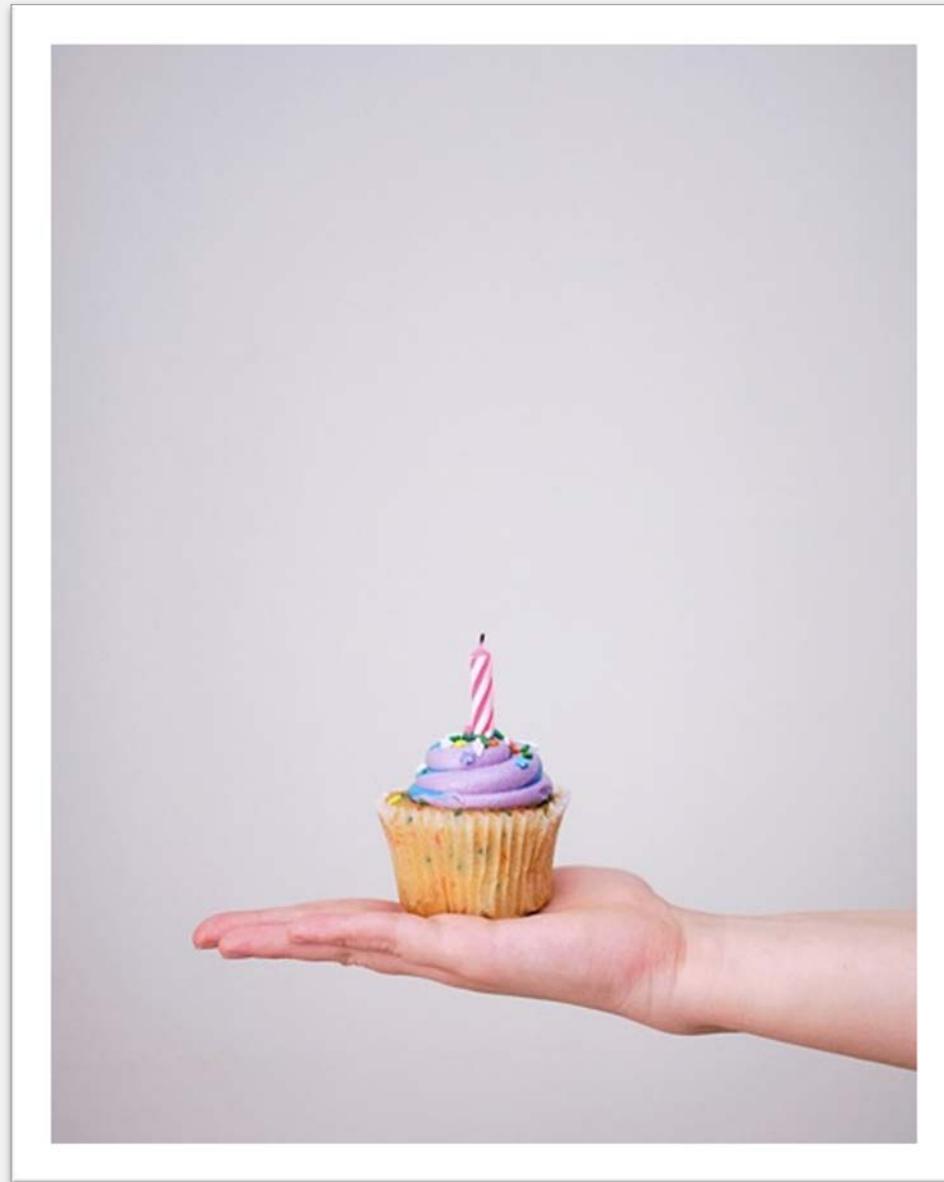
Operable

Understandable

Robust



<https://www.w3.org/WAI/standards-guidelines/wcag/glance/>



The good news is that accessibility is a journey and authoring tools can help with some of the burden



Empathy.



# How can we simulate?



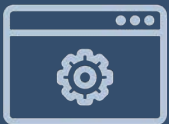
Keyboard-only



Mute sound



Screen reader (JAWS, NVDA, VoiceOver)



Browser Extensions and OS High Contrast Mode

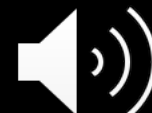


## © 17h Africa

## Testing builds empathy and understanding

Heading Level 1 BBC News Home. Heading Level 2 Top Stories. Graphic repair work gets underway at Notre dash Dame cathedral. Heading Level 3 No sign of criminal activity in Notre dash Dame fire. French investigators say they are now trying to determine whether the fire was caused by negligence. List of two items an hour ago. Link from Europe.

- Excerpt from BBC News homepage, as read by JAWS 2019 in Google Chrome





## NEWS

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## Democrats seek \$4.5bn aid for border migrants

A bid to ease the crisis, which has seen migrants dying on the border, faces a tough Senate battle.

4h US & Canada



00:59

• Who decided to separate immigrant families in the US?

• The big picture explained

• Is there a crisis on the US-Mexico border?



### Drowning photo exposes US border risk for migrants

A man from El Salvador and his baby daughter die in the Rio Grande trying to reach the US.

3h Latin America & Carib...

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### Baby girl found alive inside plastic bag

The girl now known as "Baby India" was found after nearby residents heard cries.

8h US & Canada



### 'No sign of criminal activity' in Notre-Dame fire

French investigators say they are now trying to determine whether the fire was caused by negligence.

1h Europe



### Trump lashes out at US women's football co-captain

Mr Trump fires back after Megan Rapinoe dismisses a White House visit if they won the World Cup.

1h BBC Sport



### Prince William: I'd support my child if gay

But the Duke of Cambridge admits he would be "nervous" about the pressures a gay royal might face.

2h UK

### Bodies of US WW2 troops found on island

1h US & Canada

### Eric Trump says waitress spat on him at Chicago bar

13m US & Canada

### Indian MP's 'rising fascism' speech wins plaudits

1m India

### Paris region closes schools as heatwave grips

1h Europe

### Homeless man shamed for sleeping in McDonald's

5h

### Two US towns pay \$1.1m ransom to hackers

7h Technology

### Suspected IS members arrested in Nicaragua

4h Latin America & Caribbean

### 'I was raped by Gambia's ex-President Jammeh'

17h Africa

## SPORT

[Home](#) [Football](#) [Formula 1](#) [Cricket](#) [Rugby U](#) [Tennis](#) [Golf](#) [Athletics](#) [Cycling](#)[All Sport](#)THE TRUTH ABOUT  
EATING EGGS[Learn more](#)

Getty Images

Vietnamese  
Grand Prix  
dropped in wake  
of key official's  
arrest

The Vietnamese Grand Prix is dropped from the 2021 Formula 1 calendar, BBC Sport learns.

1h | Formula 1

Pogba cannot be happy at  
Man Utd, says France boss  
Deschamps

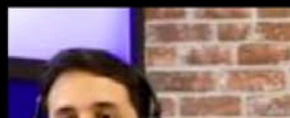
2h | Football

Premier League could hear  
new five substitutes plea

2h | Football | 664

Garcia out of Masters  
following positive Covid-  
19 test

7h | Golf



## Football Scores

[FA Cup](#) [Premier League](#) [More](#)

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FT

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## Watch &amp; listen

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BBC's best sports](#)

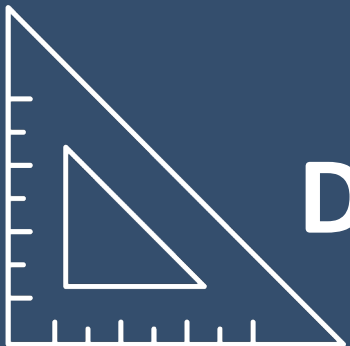
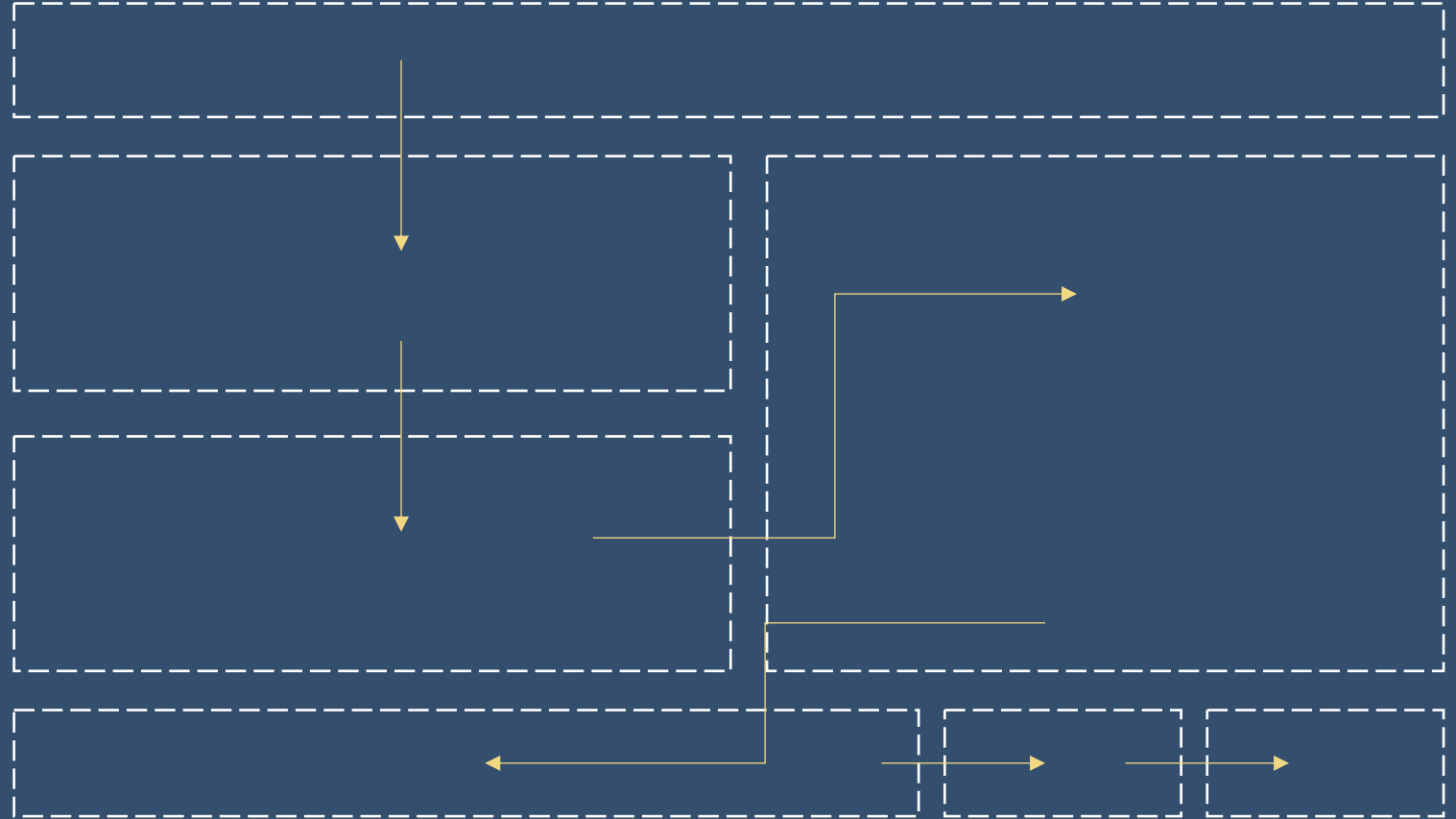
Nuanced e.g. use of high contrast, magnification etc.





# Designing for Inclusion

- Flow
- Hierarchy
- Grouping
- Tab order



**Define a Logical Layout / Order**

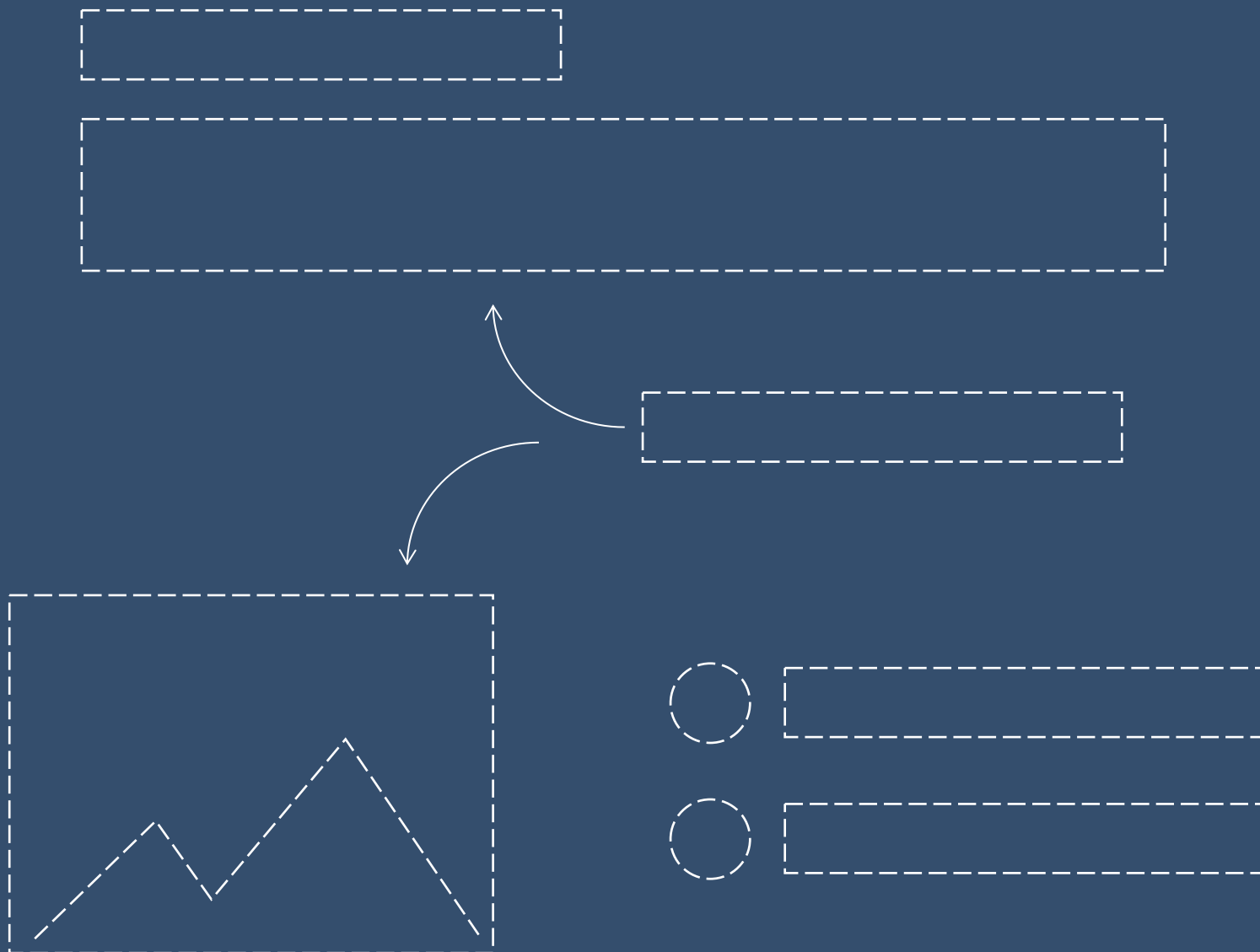


# Hide Non-Essential Elements

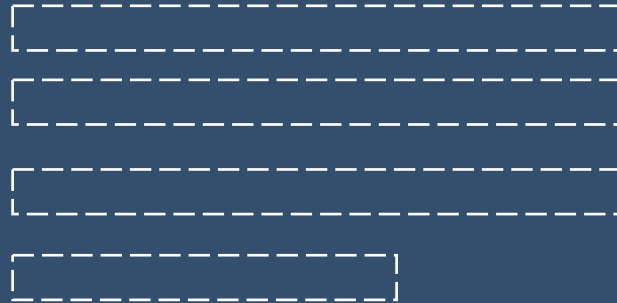
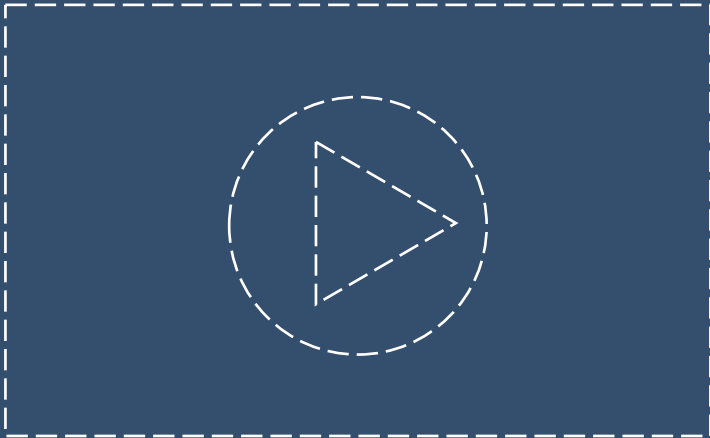
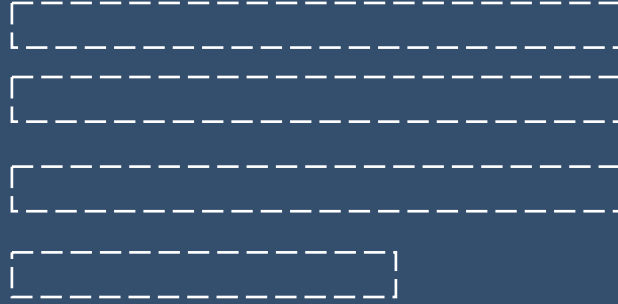
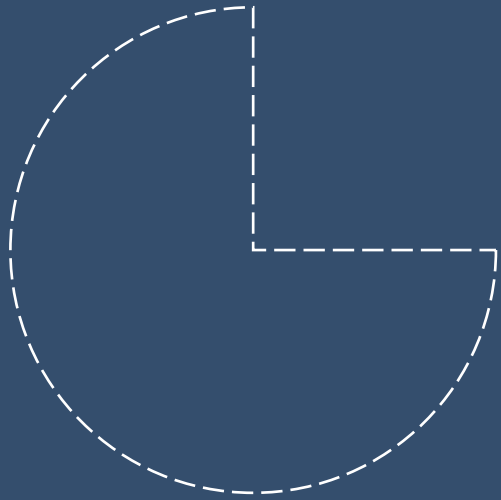
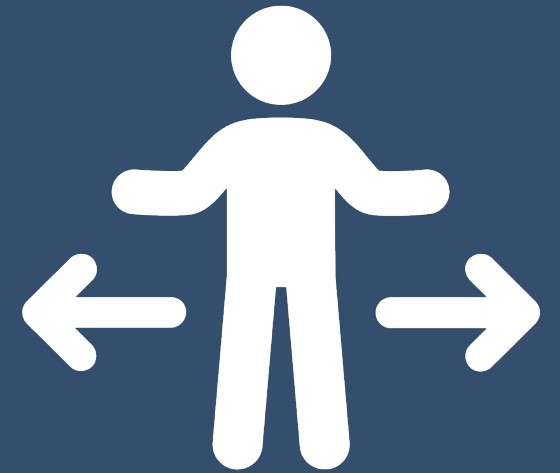





# Label Things

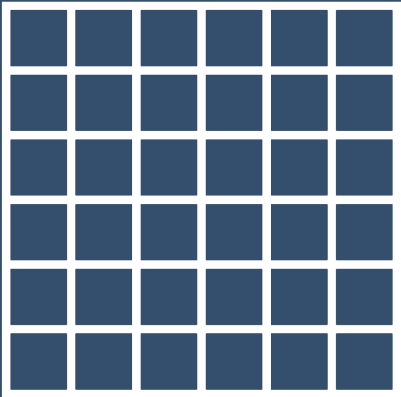


# Provide Alternatives





# Be Consistent





# Make it Visible

Colour Contrast Analyser (CCA)

**Foreground colour**

HEX

**Background colour**

HEX

**Sample preview**

example text showing contrast

**WCAG 2.1 results**

Contrast ratio 8.6:1

▶ 1.4.3 Contrast (Minimum) (AA)

✓ Pass (regular text) ✓ Pass (large text)

▶ 1.4.6 Contrast (Enhanced) (AAA)

✓ Pass (regular text) ✓ Pass (large text)

▶ 1.4.11 Non-text Contrast (AA)

✓ Pass (UI components and graphical objects)

# Strategies for (More) Accessible Design

- Use a logical layout and order
- Group / hide decorative and non-essential elements
- Use appropriate labels and descriptions (incl. alt text)
- Consistent visual design
- Appropriate contrast levels and text size
- Add closed captions to media, use TTS.
- Avoid using poorly supported elements
- Test with screen readers etc.



## Employee Benefits 2019



At Acmecorp, we offer a wide range of benefits to our employees. We offer healthcare, a comprehensive 401k, credits for childcare and gym membership, as well as flexible vacation and working policies.

### Our policies overview

1

Healthcare, including dental, vision, and life policies.

2

Employee 401(k) with matching

3

Flexible working, vacations, and wellness.



Hi and welcome to this module about Employee Benefits for 2019! Everyone should read this guide to get acquainted with the full set of benefits we offer.

- Sharon Hansen,  
Administrator

[Read More...](#)



You might be surprised to know that Acmecorp will cover certain routine expenses for our empl... [click here](#)

Some issues...

- Poor visual hierarchy, lack of grouping etc. ('Gestalt' principles).
- Inadequate contrast and poor legibility.
- Inconsistent formatting of interactive objects, links etc. – e.g. non-obvious clickable text, buttons, pictures etc.
- Lack of context and explanation.
- Decorative or duplicated elements part of focus order.
- No alt text.

## Employee Benefits 2019



At Acmecorp, we offer a wide range of benefits to our employees. Watch the welcome video to learn more.

Watch the welcome video

### Our Benefits

1

Healthcare, including dental, vision, and life policies.

2

Employee 401(k) with matching

3

Flexible working, vacations, and wellness.



Hi and welcome to this module about Employee Benefits for 2019!

- Sharon Hansen,  
Administrator

Sharon's welcome message



Acmecorp covers routine expenses for its employees, including cellphone and gym membership.

Routine expense coverage

A little better...

- Visual hierarchy improved in several places.
- Contrast issues largely improved.
- Consistency to clickable elements – links are buttons, consistent fonts / colors.
- Better context – e.g. links are properly described.
- Extraneous objects removed from focus order.
- Alt text added where appropriate.
- Still too much content on the page (but this was a real customer project originally).



A close-up photograph of a person's hands carefully placing a wooden block onto a tall, precarious stack of Jenga blocks. The person is wearing a red shirt and has dark hair. The background is blurred, showing a blue light source on the left. The text "Articulate: Our Journey" is overlaid in white, centered on the image.

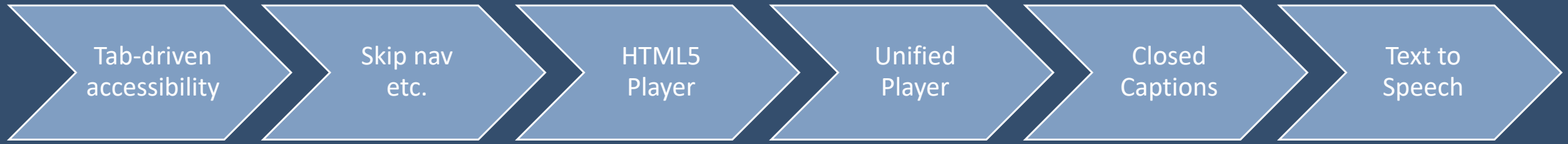
# Articulate: Our Journey

Compliant → Accessible

Piecemeal → Holistic

# Our Journey So Far...

## Pre-2019



## 2019-20





What's Next?



# 2021 Roadmap

## Text

HTML Text

Custom styles

Hyperlinks

Authoring improvements

## Player Improvements

Contrast

Settings

Control order

Shortcuts

## Interactivity

Basic components

All question types

Standalone controls

## Media

Video and audio playback control.

Audio descriptions etc.

## Transitions

Focus management

Dialogs etc.

Animated and timed content

# Resources

Compliance Docs	<a href="https://articulate.com/support/article/Articulate-360-FAQs-Accessibility">https://articulate.com/support/article/Articulate-360-FAQs-Accessibility</a>
Practical help and practice activities	<a href="https://articulate.com/support/article/Storyline-360-Making-Your-Course-Accessible">https://articulate.com/support/article/Storyline-360-Making-Your-Course-Accessible</a>
Ebook	<a href="https://community.articulate.com/e-books/6-best-practices-for-designing-accessible-e-learning">https://community.articulate.com/e-books/6-best-practices-for-designing-accessible-e-learning</a>

WCAG Guidelines	<a href="https://www.w3.org/WAI/standards-guidelines/wcag/glance/">https://www.w3.org/WAI/standards-guidelines/wcag/glance/</a>
WCAG Checklist	<a href="https://webaim.org/standards/wcag/checklist">https://webaim.org/standards/wcag/checklist</a>
Browser Extensions List	<a href="https://www.digitala11y.com/accessibility-plug-ins-ie-chrome-firefox-browsers/">https://www.digitala11y.com/accessibility-plug-ins-ie-chrome-firefox-browsers/</a>
Articles, Tips, Tricks etc.	<a href="https://a11yproject.com">https://a11yproject.com</a> <a href="https://www.24a11y.com">https://www.24a11y.com</a> <a href="https://webaccessibility.guide">https://webaccessibility.guide</a> <a href="https://100daysofa11y.com/">https://100daysofa11y.com/</a> <a href="https://accessibilityinsights.io/">https://accessibilityinsights.io/</a>





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