Accessibility Best Practices in Storyline

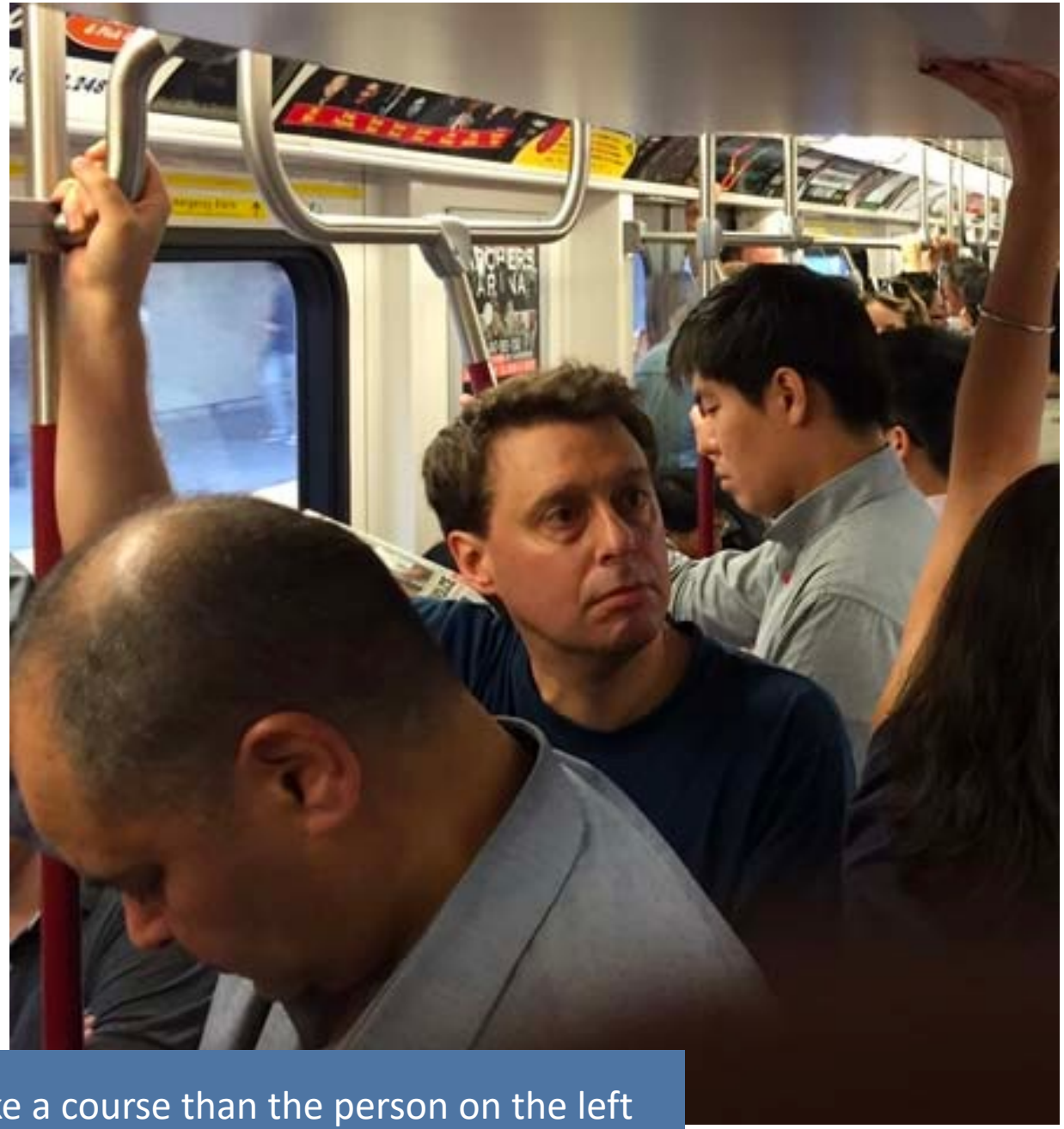
Simon Taghioff

Product Manager, Articulate

@staghioff

How to think.

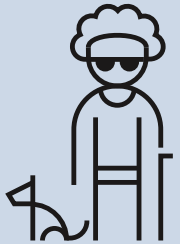
Challenging Perceptions



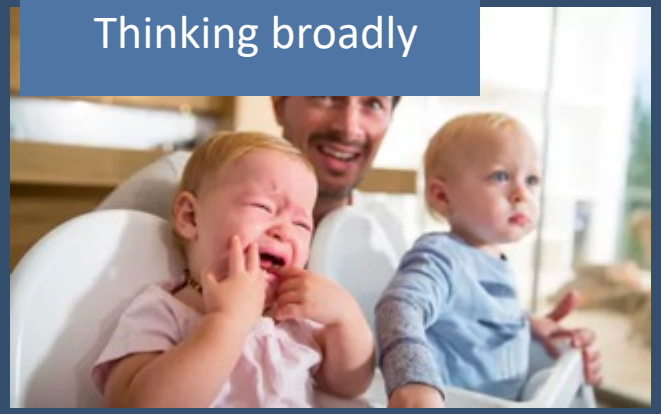
In this moment, the person on the right is less able to take a course than the person on the left

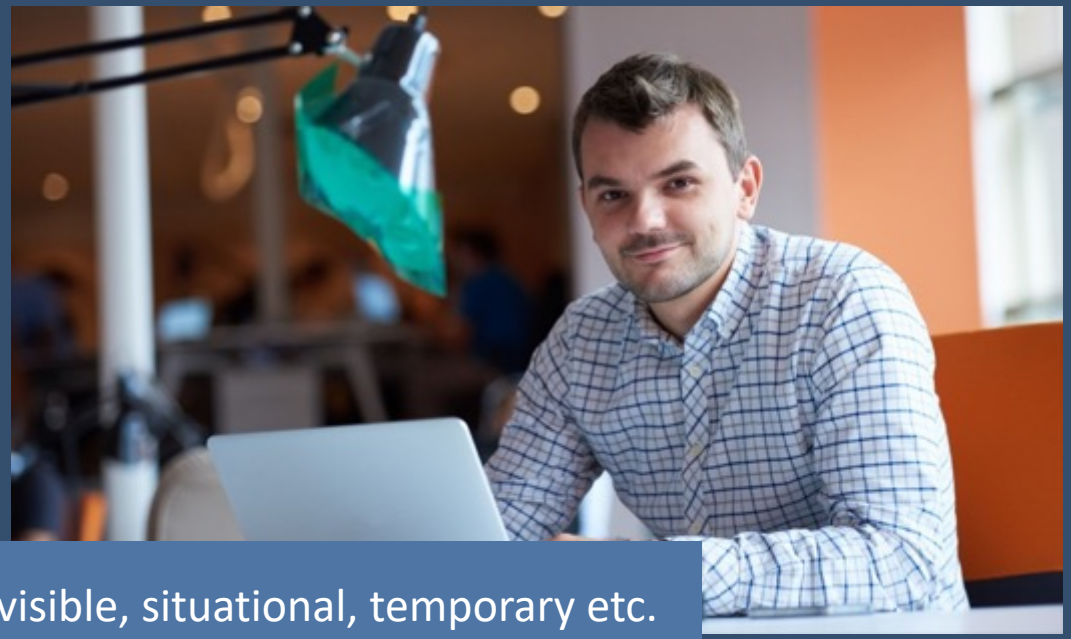
Disability as a Personal Attribute

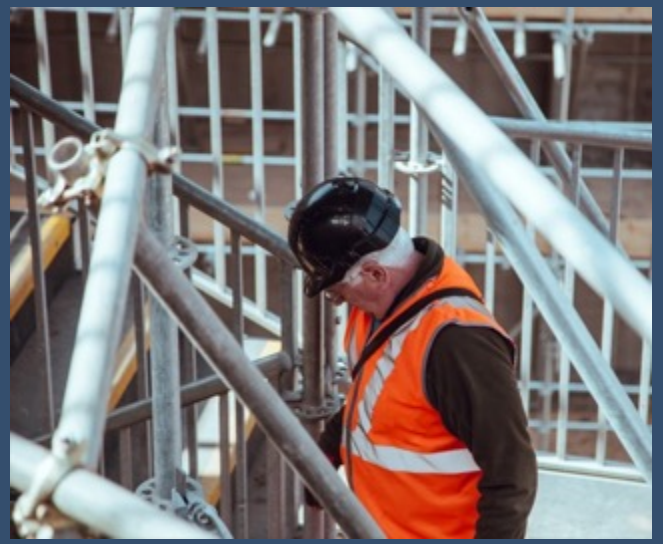
Disability as Contextual

	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

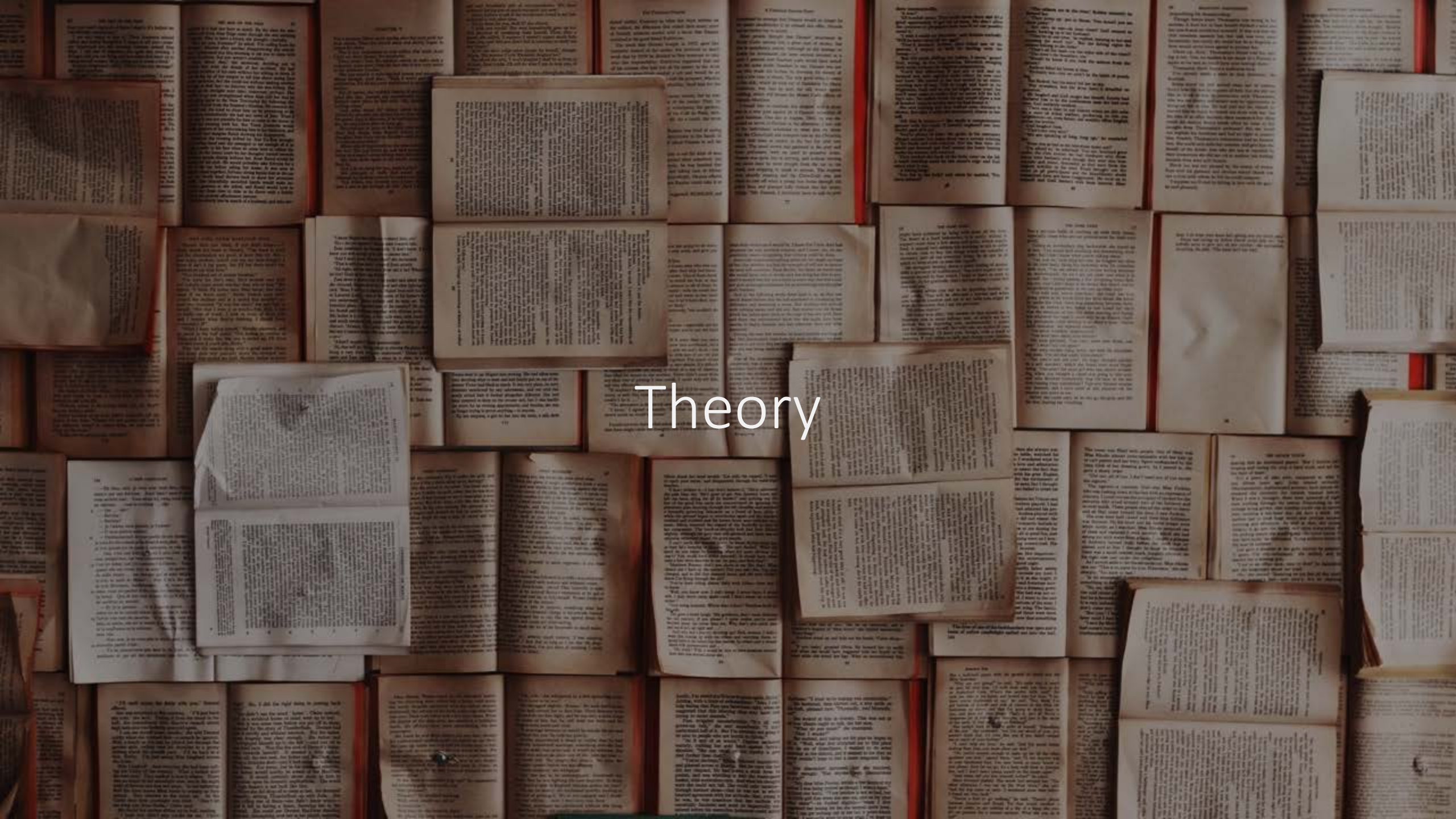
Thinking broadly







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
- riterion 1.3.2 due to using an HTML layout table that does not make sense when linearized

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The WCAG – Overwhelming for beginners!

WCAG – Make it POUR

Perceivable

Operable

Understandable

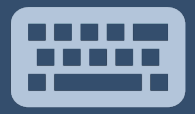
Robust

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?

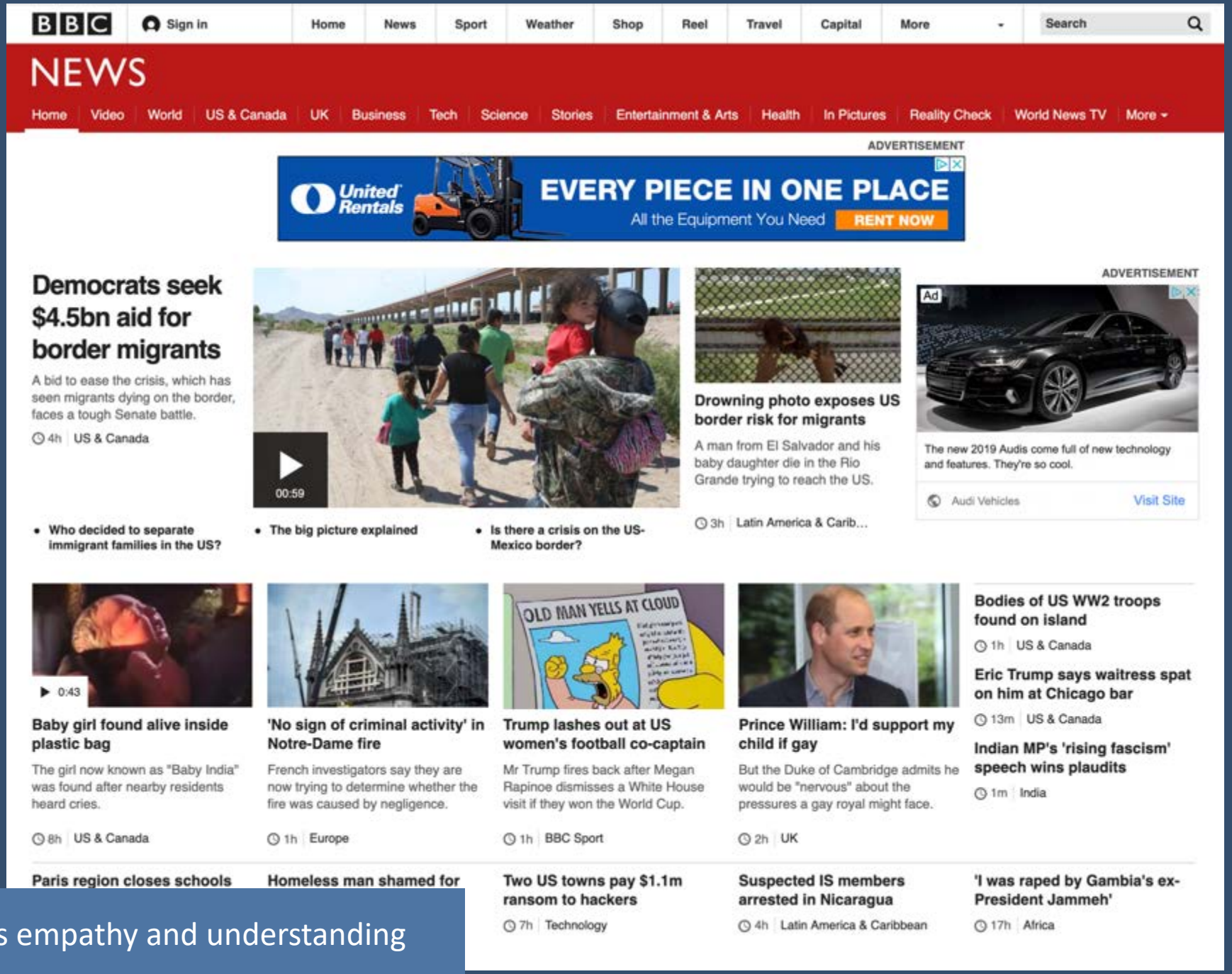


Keyboard-only

Mute sound

Screen reader (JAWS, NVDA, VoiceOver)

Browser Extensions and OS High Contrast Mode



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

ADVERTISEMENT

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

- 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...

ADVERTISEMENT

The new 2019 Audis come full of new technology and features. They're so cool.

Audi Vehicles | Visit Site

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

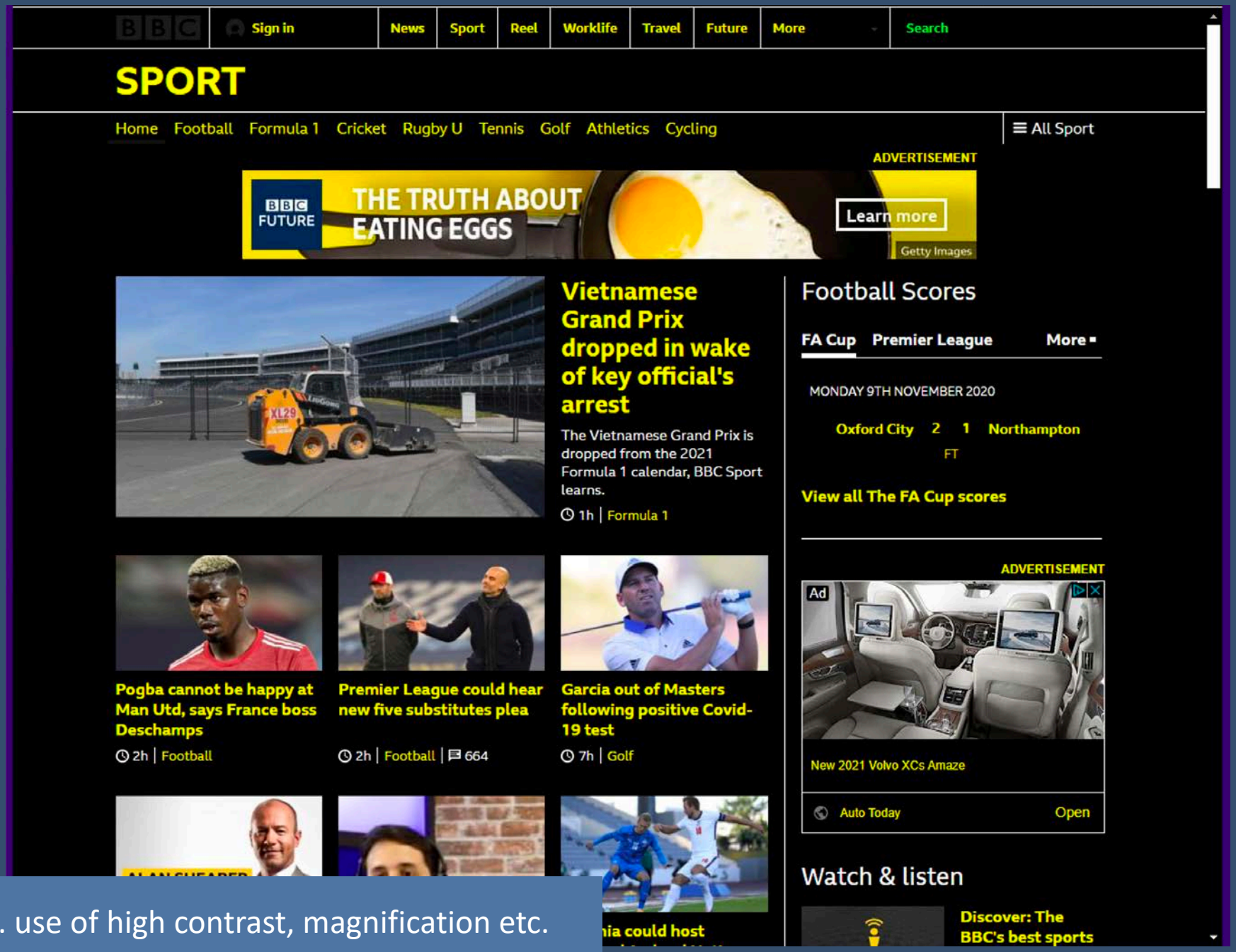
7h | Technology

Suspected IS members arrested in Nicaragua

4h | Latin America & Caribbean

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

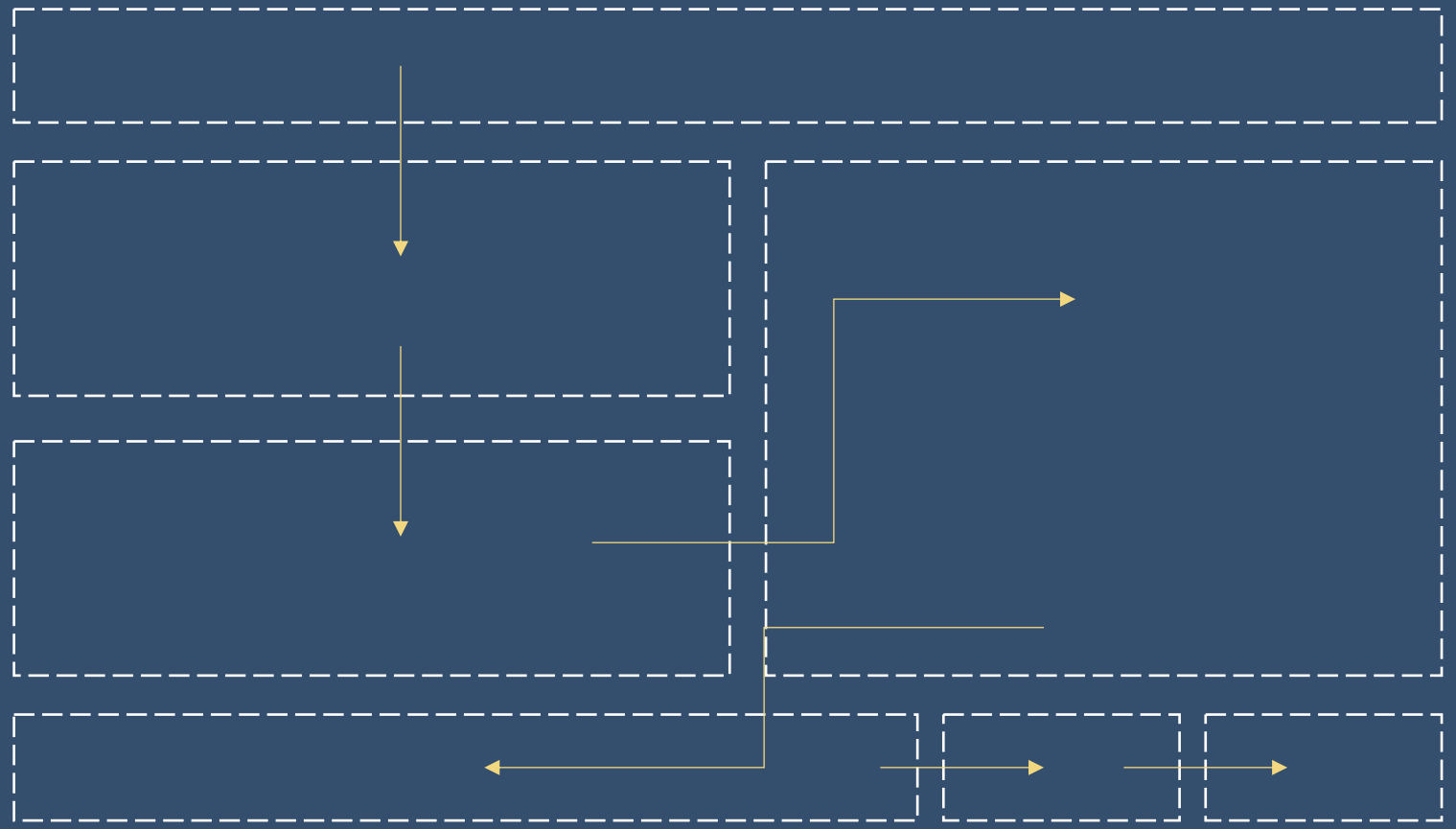
17h | Africa

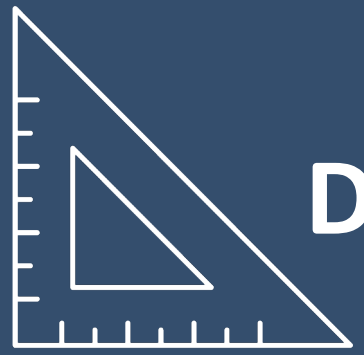


Nuanced e.g. use of high contrast, magnification etc.

Designing for Inclusion

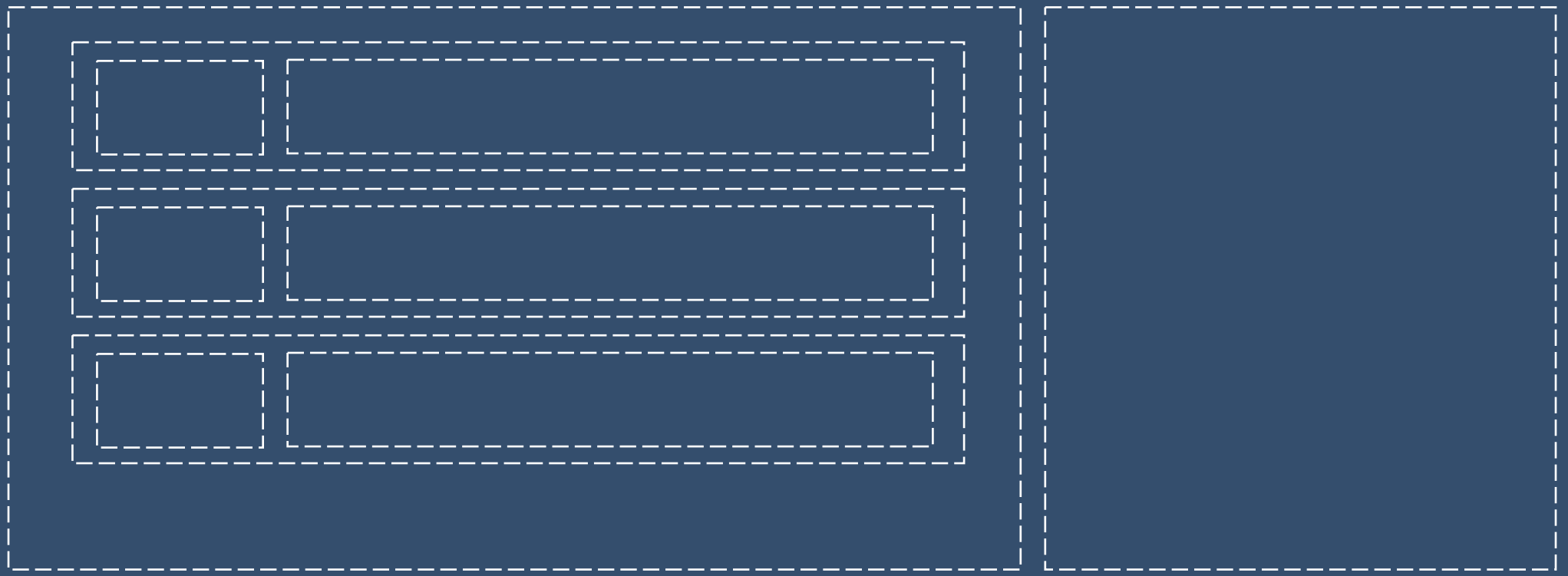
- Flow
- Hierarchy
- Grouping
- Tab order



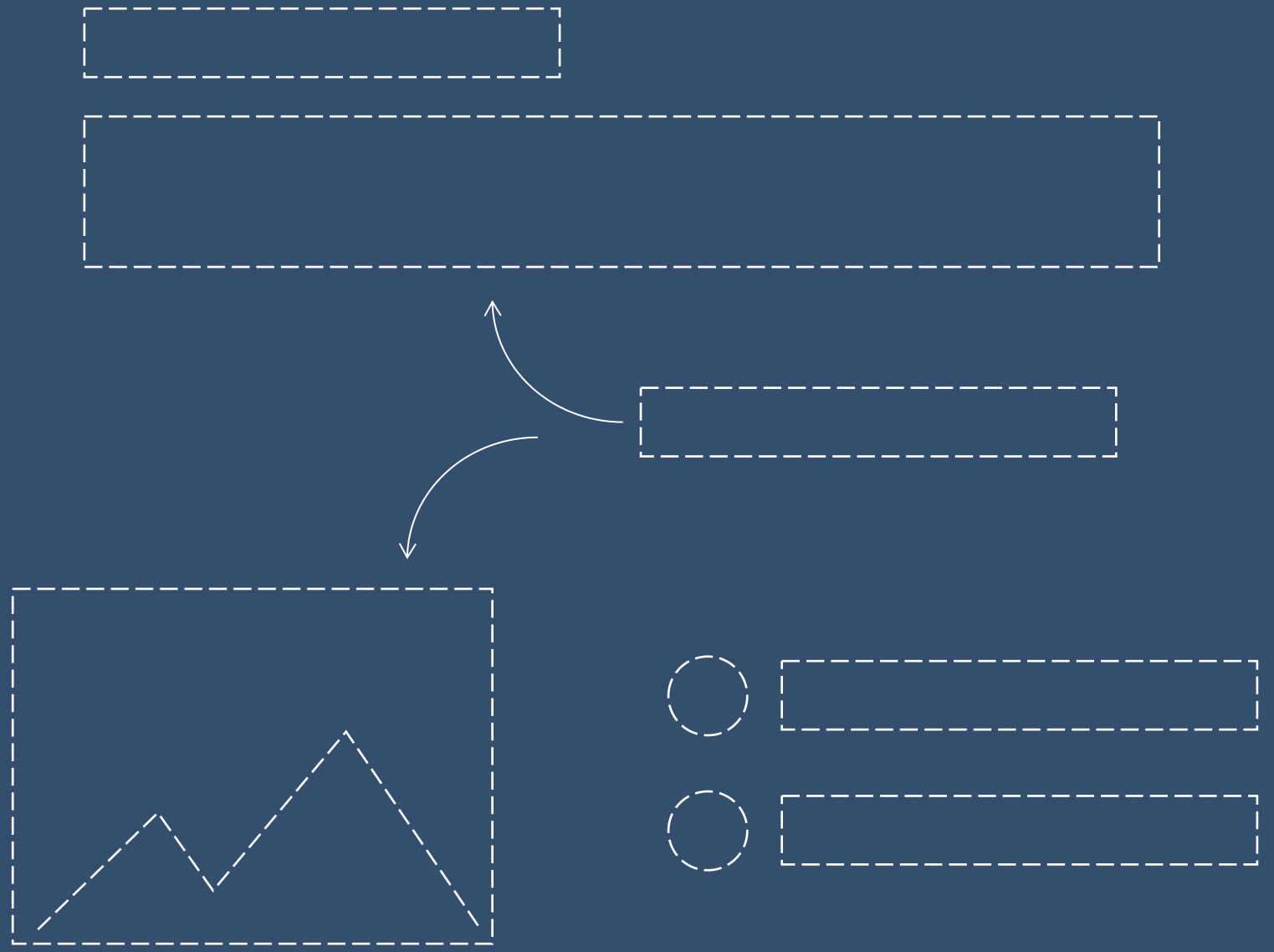


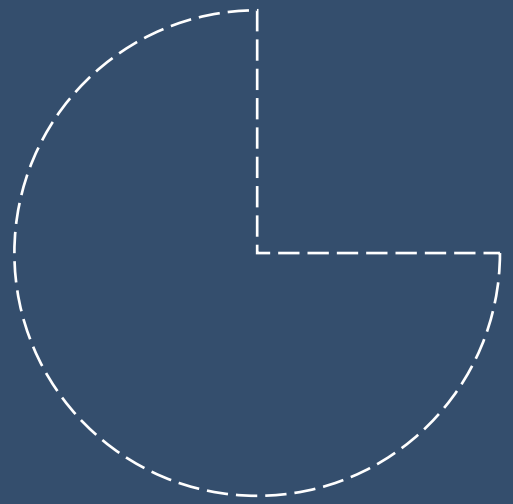
Define a Logical Layout / Order

Hide Non-Essential Elements

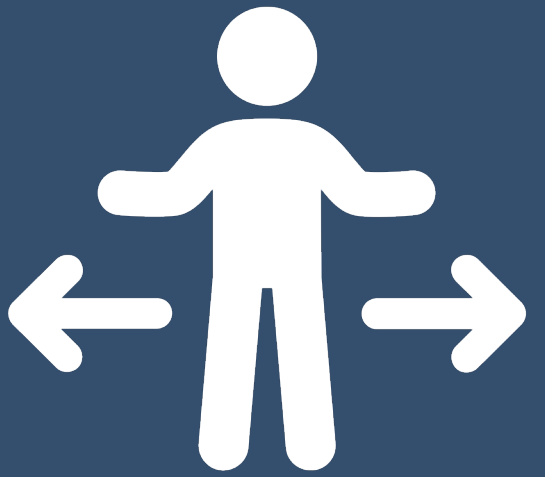


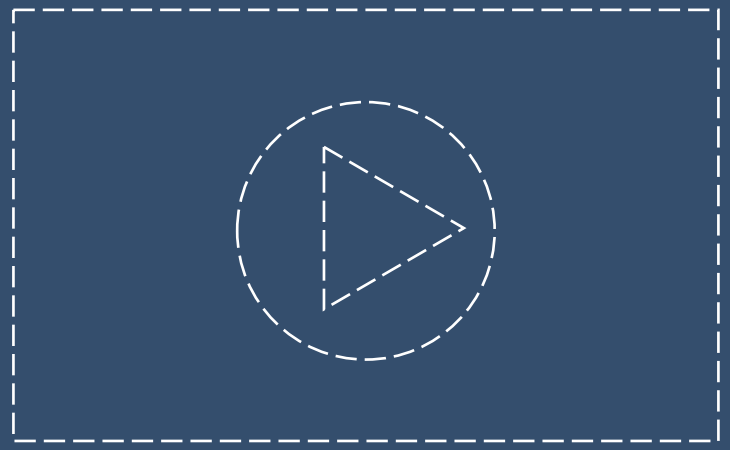
Label Things



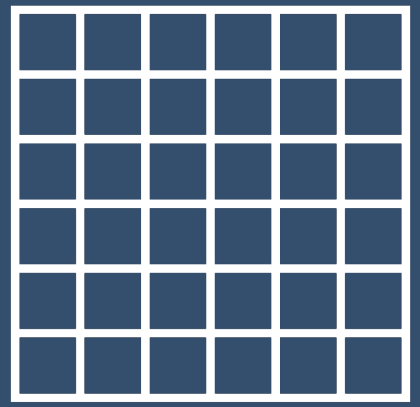


Provide Alternatives

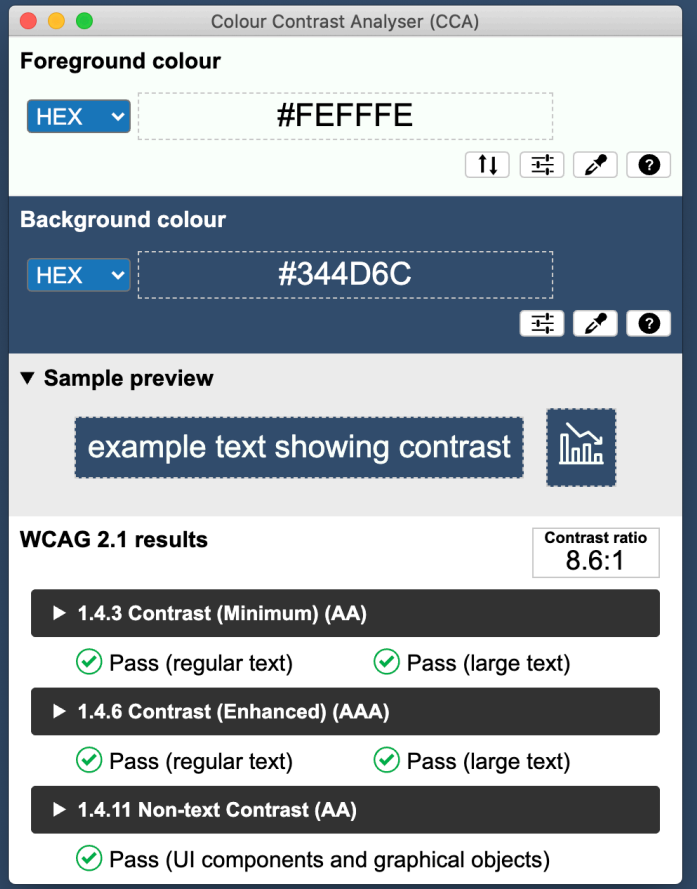




Be Consistent

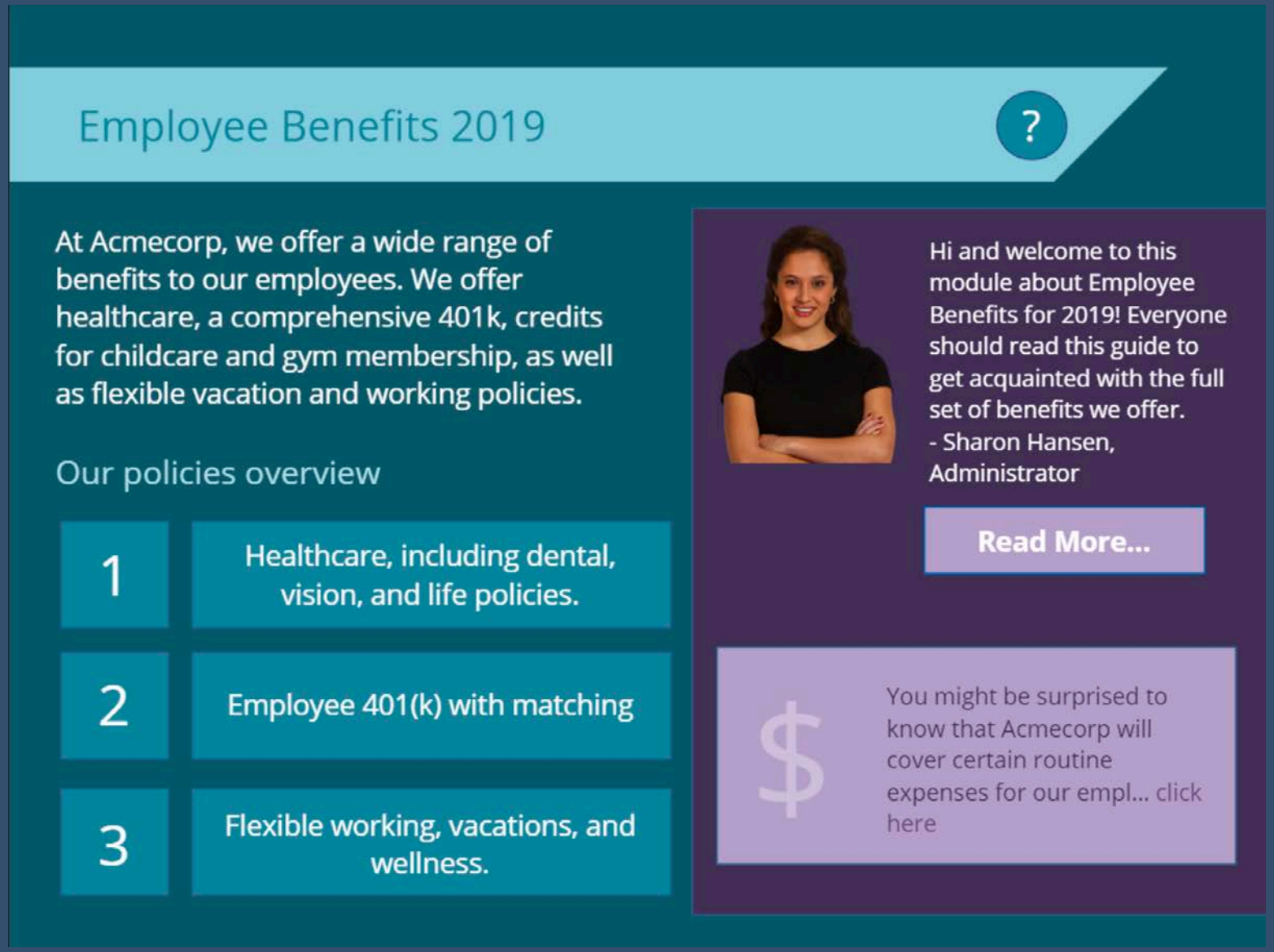


Make it Visible



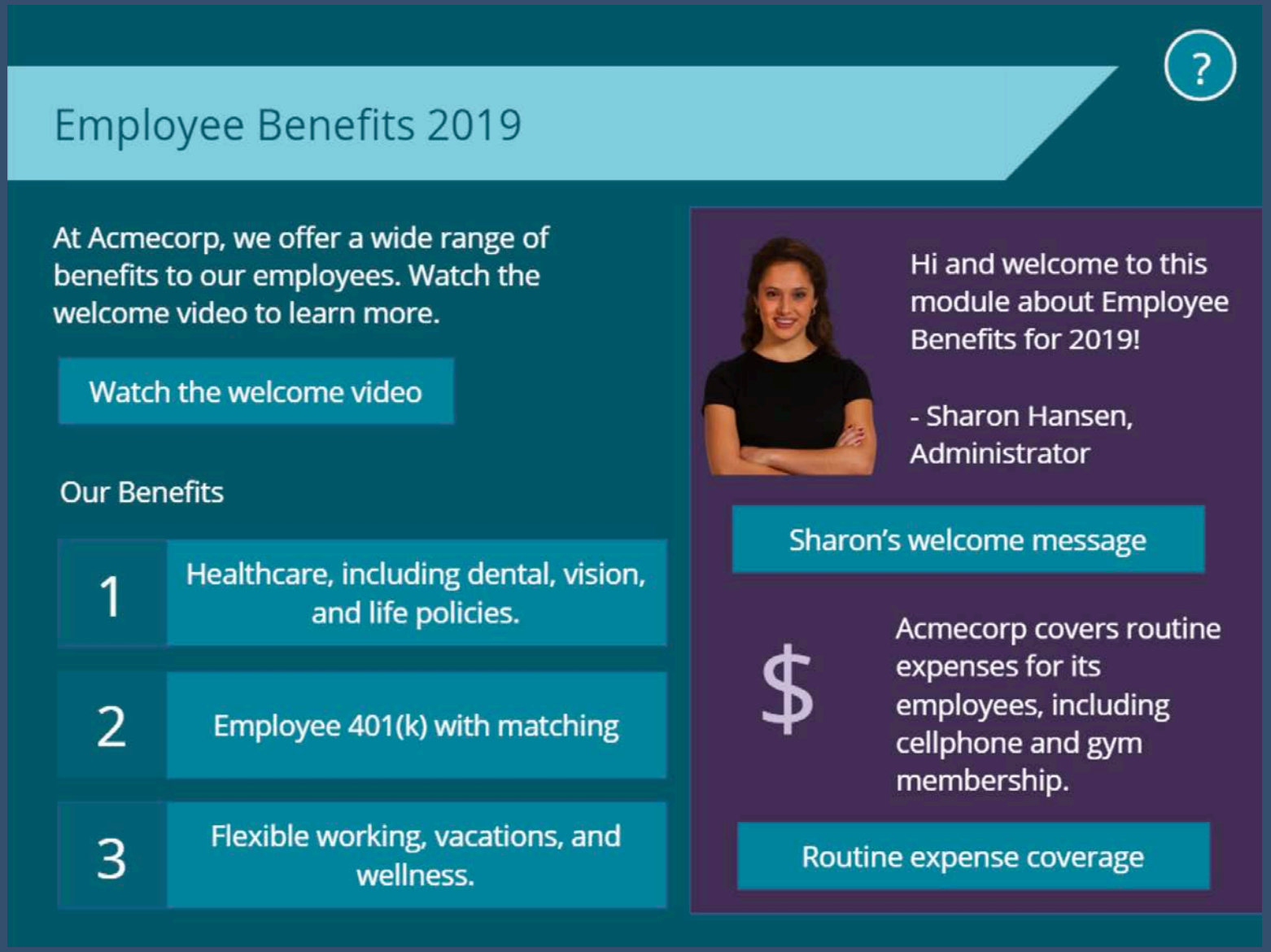
Strategies for (More) Accessible Design

- 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.



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.



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).

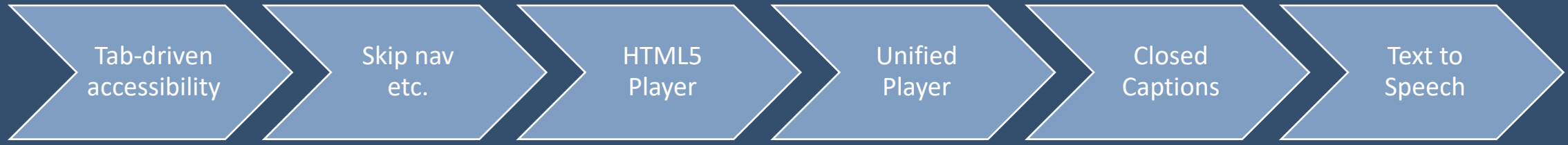
Articulate: Our Journey

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

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

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