



# Digital Accessibility

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# Why?

- Inclusion is a Stanford value
- University has a responsibility to provide an inclusive environment for Stanford community and public
- (Digital) Accessibility is a method to achieve inclusion
  - Make it usable for all
- Americans with Disabilities Act (ADA) is a civil rights law that prohibits discrimination against individuals with disabilities

# What?

- Digital assets decentralised and accelerated growth
  - Sites & apps
  - Content
- 2 methods to solve for digital accessibility
  - Accessible, for most users
  - Accommodate, for individual users and for the inaccessible parts
- Think about your users and their situations

# How?

- How to think about it?
  - input → process → output

## Users: Hearing (2% )

- hard of hearing
- deaf
- *noisy/quiet environment*
- *80% of subtitle users do not have hearing impairment*
- *foreign language*
- *accent*
- *watching at 2x speed*

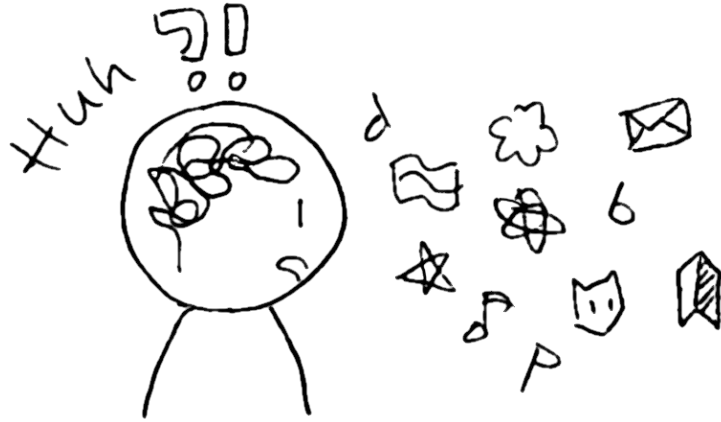


### Design tips:

- Add transcripts/subtitles
- More than just audio alerts

## Users: Cognitive (17%)

- dyslexia (10%)
- attention-deficit
- autism
- psychological (+38%)
- *tired*
- *'multitasking'*
- *in a hurry*
- *under pressure*



### Design tips:

- Simple pages
- Easy undo's
- Provide feedback
- Reduce motion

## Users: Vision (2%)

- low/limited-vision
- blind
- colour-blindness (5%)
- flashing-induced seizure
- *extreme lighting*
- *dim lighting*
- *non 20/20 vision (50%)*



### Design tips:

- Use text alternatives
- Good contrast
- Provide structure
- Allow zoom

## O

## Travel Body Lotion

Search  \$1.22 (14%)  
 Buy 1 unit of 100 shares of \$10.75 (on the way).  
 Buy 1 unit of 100 shares of \$10.75 (on the way).  
 You Save: You Save: \$1.36 (19%)  
 Instead of Price: \$9.87  
 List Price: List Price: \$48.49  
 (1.104) - in List  
 Price: Find a Gift \$34.88  
 Buy Price: Buy Price: \$8.88  
 Browsing History  
 You Save: You Save: \$13.61 (28%)  
 V. B. L.

## Overlapping text when zoomed in



## Users: Mobility (7%)

- RSI
- dexterity limitation
- temporarily disabled
- switch devices



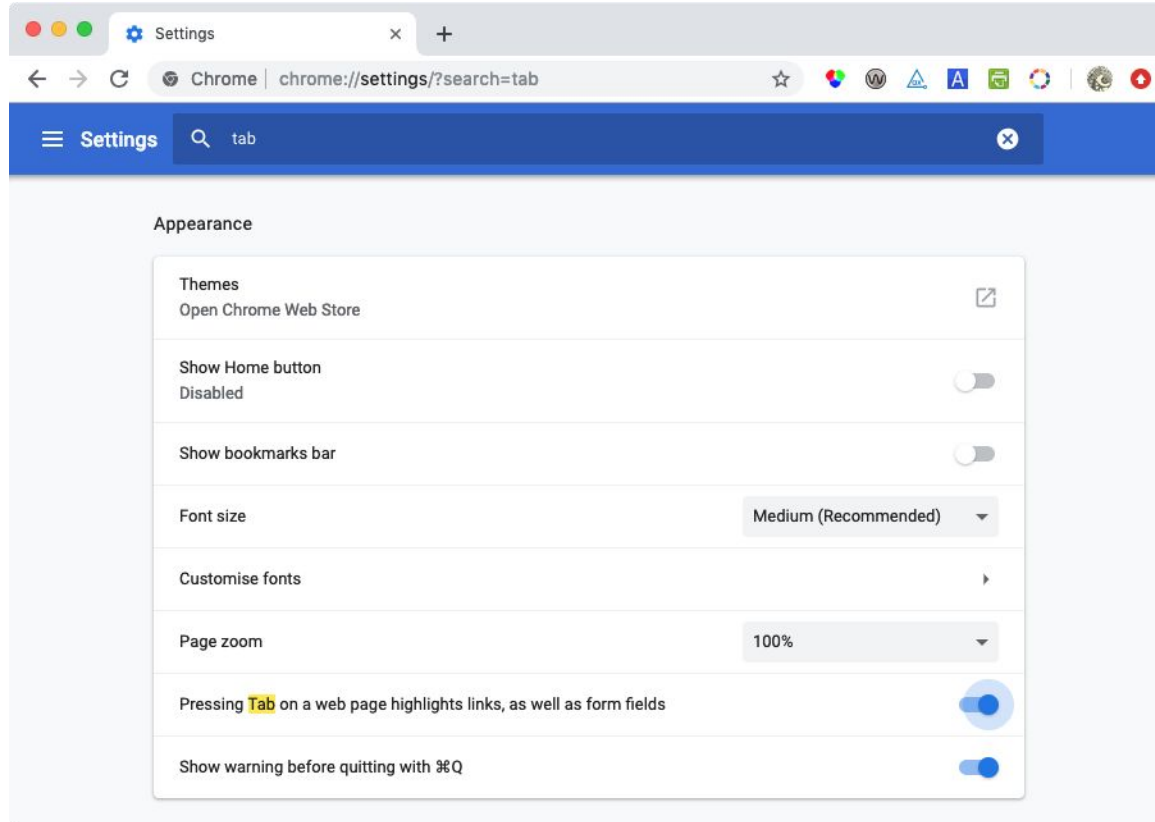
- *limited input methods*
- *slow connection*
- *using gloves*
- *carrying something*

### Design tps:

- Visible focus
- Simple interactions
- Large hit areas
- Test with keyboard-only

# How?

- How to think about it?
  - input → process → output
  - Objective [WCAG 2.0 AA](#) standard
    - Perceivable
    - Operable
    - Understandable
    - Robust
- How to test?
  - Keyboard-only +
  - Tools (screen reader, colour checker, automated scanners) +
  - User journeys



Chrome setting: Pressing Tab on a web page highlights links, as well as form fields

# Demo

- <https://www.stanford.edu/student-gateway/>
- <https://dschool.stanford.edu/>
- <https://cs.stanford.edu/>
- <https://humsci.stanford.edu/>

# What does SOAP do?

- Evaluate and monitor our (core) digital assets

Automated scan result of Top 16 sites(anonymised)

A	B	C
Unit	# of pages	# of errors
	2411	20659
	3183	17023
	2276	20372
	4863	62345
	1484	4490
	172	3740
	136	145
	31	0
	308	609
	9	47
	22	5
	73	580
	87	495
	113	506
	2324	46983
	44	216

# What does SOAP do?

- Evaluate and monitor our (core) digital assets
- Units responsible for fixing issues.
- Consult on resolving inaccessible issues
  - Technical, procedural, legal, purchasing
- Train
- Scaling to Stanford
  - 'Gates' - procurement, training, templates
  - Make it easy with 'free' tools and training
  - Communities of practice
  - Leadership commitment

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# Next steps

- Want to learn some skills? SOAP needs an intern.
- Resources:
  - WAI resource for design and development  
<<https://www.w3.org/WAI/design-develop/>>
  - Teach Access tutorial  
<<http://teachaccess.org/initiatives/tutorial/>>
  - WebAIM's Web Accessibility for Designers  
<<https://webaim.org/resources/designers/>>
  - Testing sites/apps  
<<https://stanford.box.com/v/testing-for-a11y-w-VO>>
  - Writing content  
<<https://stanford.box.com/v/writing-usable-content>>