



February 28, ConFoo 2020 Oskar Westin

Accessibility

The easy part of your job



@OskarWestinTO | @TelusDigital | @a11yTO





Tiohtià:ke/Montréal is historically known as a gathering place for many First Nations.

The Kanien'kehá:ka Nation is recognized as the custodians of this land and waters.

The space we occupy today is located on unceded Indigenous lands.

Today, it is home to a diverse population of Indigenous and other peoples.

About the presenter (that's me)



Oskar Westin
Accessibility
Strategy Manager

#a11yTO

#a11yTO
Meetups, Camps
Conferences



@OskarWestinTO | @TelusDigital | @a11yTO

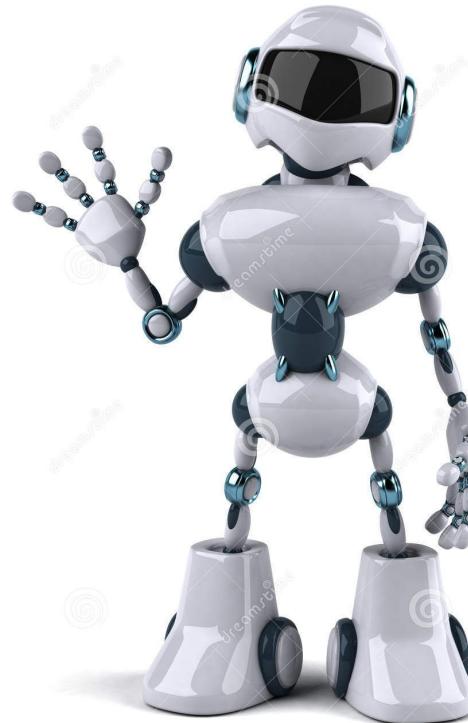
About the audience (that's you)

- Is this your first accessibility talk, ever?
- Is this your first accessibility talk, at ConFoo?
- How many of you are designers?
- How many developers?
- How about product owners, or managers?
- How many of you noticed the TELUS branded flower?



Accessibility is easy

Really?



Accessibility is easy

- Making things accessible is easy,
 - if you're a designer that **understands the value of UX**
 - Or if you're a developer that understands the **advantages of using semantic HTML code** as often as you can

Really



What is accessibility

Accessibility is about providing equitable access to allow people to choose without judgement and to retain people's dignity, regardless of their ability.



What is a11y?

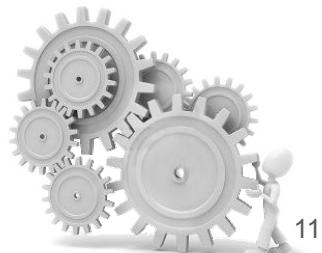
A eleven Y is a numeronym, representing the eleven numbers between the A and the Y
in **A**ccessibilit**Y**

Digital accessibility (a11y) provides equitable access to the people who require assistive technology to access our content, products and services.



What is assistive technology?

Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.



hard-of-hearing

Blind

Cognitive

Neurodiverse

Situational

Low vision

Accessibility can be scary

Aging

Temporary

Deaf

Non-verbal

Distracted

Permanent

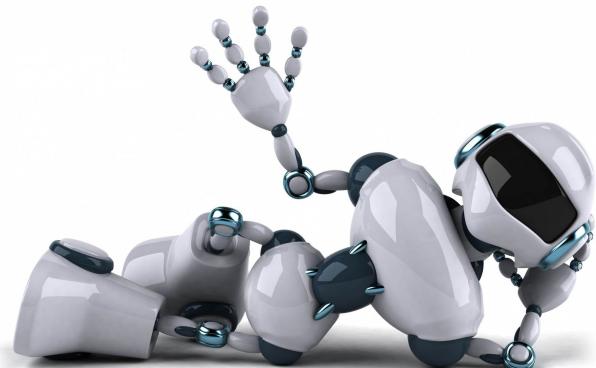
Motor control



People are people, that's less scary.

Let's take a break

Do we have any questions?



Tips and Tricks

Empower yourself with tools and resources



[axe](#)



[wave](#)



[arc toolkit](#)



[insights](#)

Automated tools

Tools can support your processes and help you discover quick fixes, similar to a checklist. Use tools early and often, so that you can focus on the user experience for people with disabilities

Resources

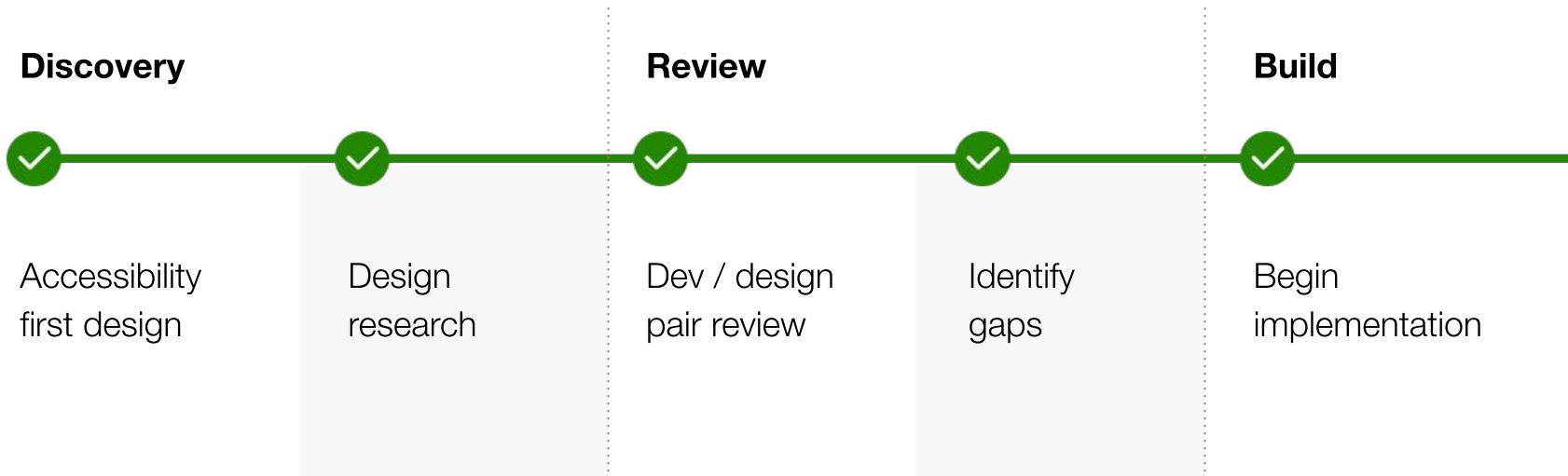
There's lots of information out there. You can't trust every resource, but here are a few to help you get started

- [BBC Open licence resources](#)
- [A11yproject.com](#)
- [Canadian Digital Services Accessibility](#)

- [W3C Easy Checks](#)
- [Microsoft Design](#)
- [WebAim.org Top Ten Tips anyone can Use](#)

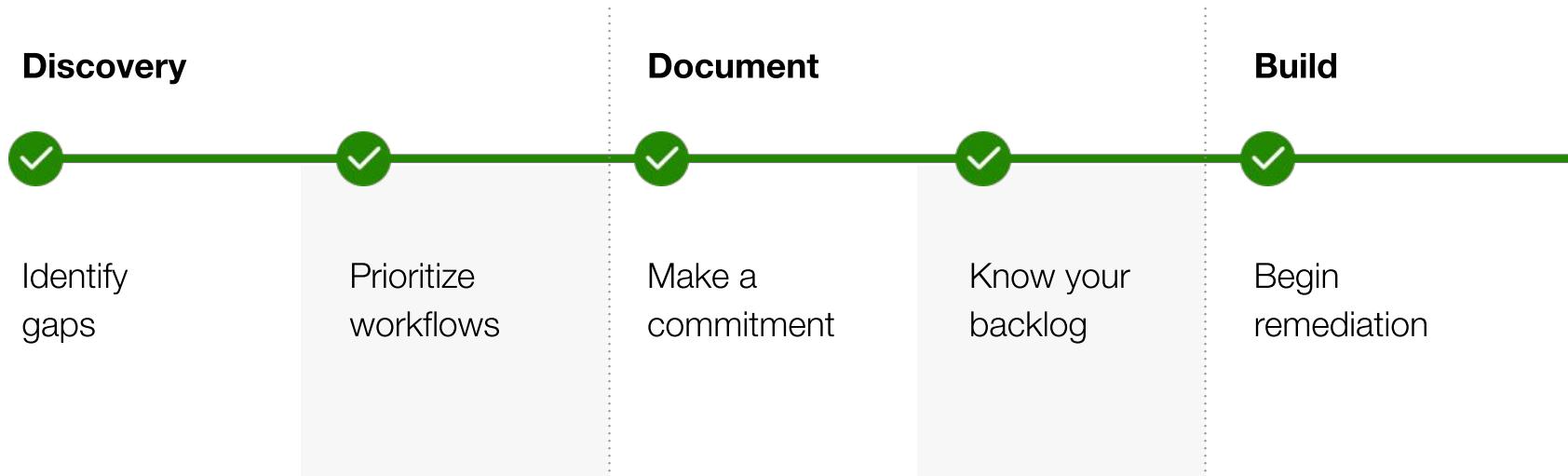
Accessibility first design

New projects



Accessibility remediation roadmap

Legacy projects



Standards and guidelines

What we do



Design



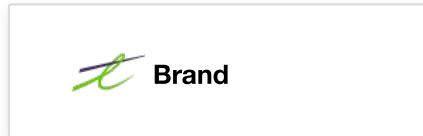
Accessibility



Content



UX Research



Brand

Why we do it

1. Consistent and smooth customer experience
2. Easier ways of working
3. Savings in cost, time, and tears!

Why it matters

- Customers have low/no tolerance for bad design
- Inaccessible design = costly; accessible design = opportunity
- Rework is expensive - waste is the worst!

What if we don't have standards?

If you don't have standards.
Create your own.



If you don't have standards, start with the guidelines

The Standards

TELUS is committed to meeting or exceeding the Web Content Accessibility Guidelines 2.0, level AA (WCAG 2.0 AA). We expect our partners and vendors to do the same.

TELUS Accessibility Standards

WCAG checklists

Why we don't want a checklist



User experience is not a checklist

Accessibility considerations



Considerations vs standards and checklists

- Standards and guidelines are helpful
- To change perceptions, ask your teams to consider how their decisions, design and code affect others

Accessibility considerations and matrix

Latest version: February 2020

How to use the accessibility considerations and m

Reduce your accessibility effort and cost

The **Accessibility Considerations** and **Accessibility Matrix** work together to help your team to meet all the most common accessibility requirements.

The **Considerations** provide more context for when you are doing your Product Owners/Business Analyst requirements gathering, Interaction Experience Design or Visual Design requirements, Developments requirements gathering and scoping out your work effort or project timelines.

The **Matrix** is a validation tool for Product Owners, Developers, and Quality Assurance team members.

The structure of the **Accessibility Considerations** tab reflects the **Accessibility Matrix** tab closely to make your accessibility validation faster and easier.

**Accessibility requirements are WCAG 2.0 Level AA. This list not an all inclusive list.*

Content is understandable

// a11y-1

Does the page use plain language?

Does the <title> summarize the contents of the page ?

Specify a language with the lang attribute

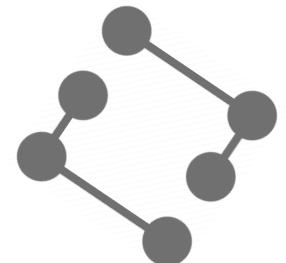
// a11y-2

Is the lang attribute set?

(e.g. <html lang="en">)

Can we make it simple, without a checklist?

Accessibility frameworks



Accessibility framework

Desktop

Keyboard alone

Zoom / text resize

Colour contrast

High Contrast

Reduced motion

Screen reader

Mobile web

Switch access/control

Pinch to zoom

Colour contrast

Inverse colour/grayscale

Reduce motion

Screen reader

Mobile app

Switch access/control

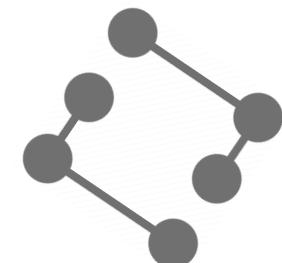
Larger text

Colour contrast

Inverse colour/grayscale

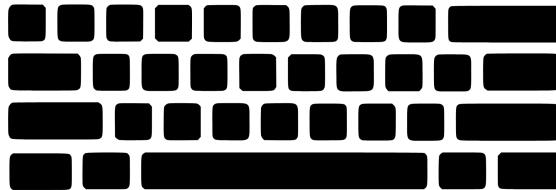
Reduce motion

Screen reader



Keyboard alone

- Put aside your mouse
- Press the Tab Key to move from one functional element to another
- Press Shift and Tab to move backwards



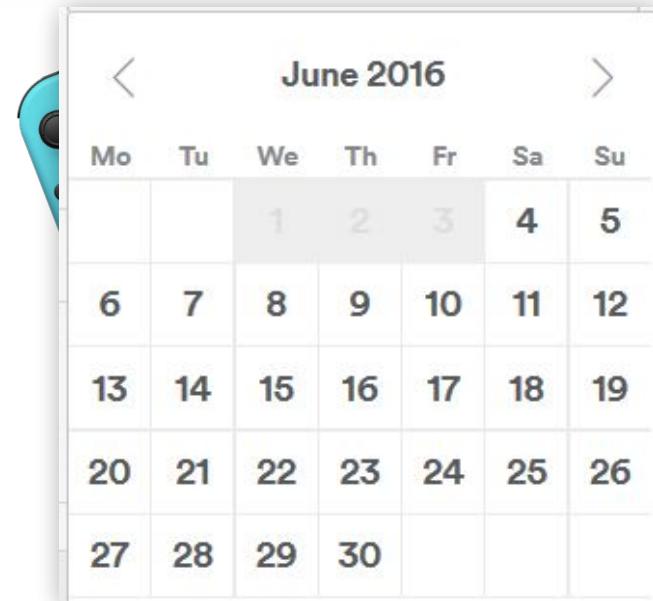
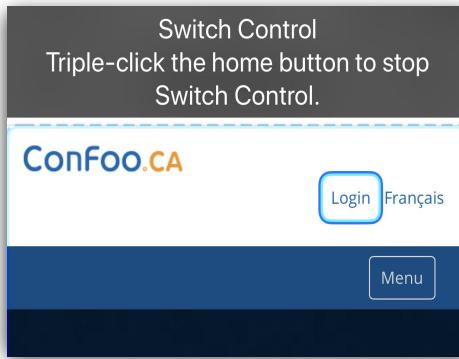
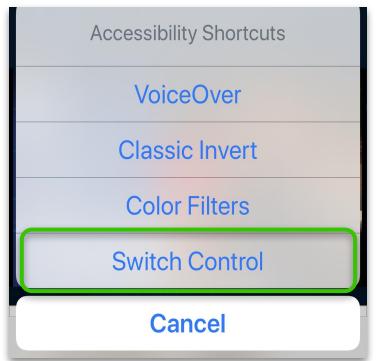
You should be able to find and action each functional element with the keyboard only

Tips:

- Do not add non functional elements to the Tab Order, this is disruptive
- **Links** are triggered with the Enter Key, **Buttons** are triggered with Space or Enter
- Arrow keys will be needed for some form elements, like **radio buttons**

Switch / Control

- A switch, can also act as a keyboard
 - But you can only make one selection at a time
- You can activate this mode on your mobile devices



[Webaim: Single Switch Access](#)

Zoom / text resize

- Magnify the webpage to 200%
(CTRL/COMMAND + / -)
- Set the browser font size to largest text
- Magnify the screen with a browser setting or a tool like ZoomText



The layout should hold scale and design elements shouldn't break

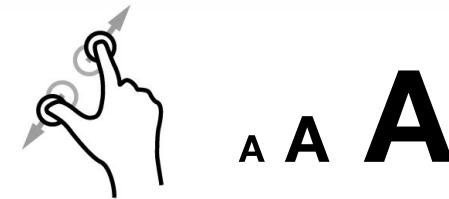
Tips:

- Increasing the size of a webpage is not the same as magnifying the screen
- Many users navigate up to 200% or more
- Content can be difficult to discover at high zoom levels

[Mac Accessibility Features: Make content on the screen larger](#)

Pinch to zoom mobile web / text resize apps

- Magnify the webpage to 200%
(Pinch to zoom)
- Set the font size to largest text in the **OS settings**
- Magnify the screen with **OS settings**



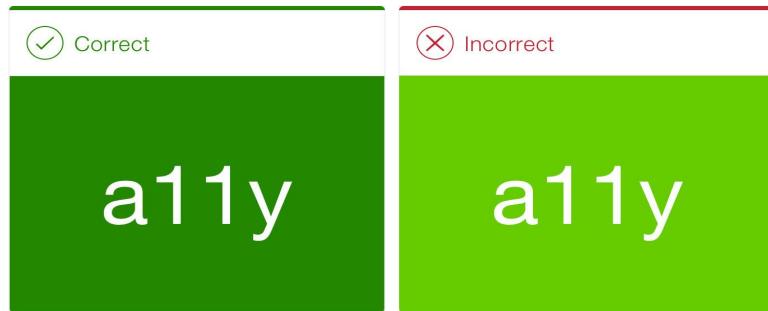
The layout should hold scale and design elements shouldn't break

\

Design with contrast and colour blindness in mind

Colour contrast tools:

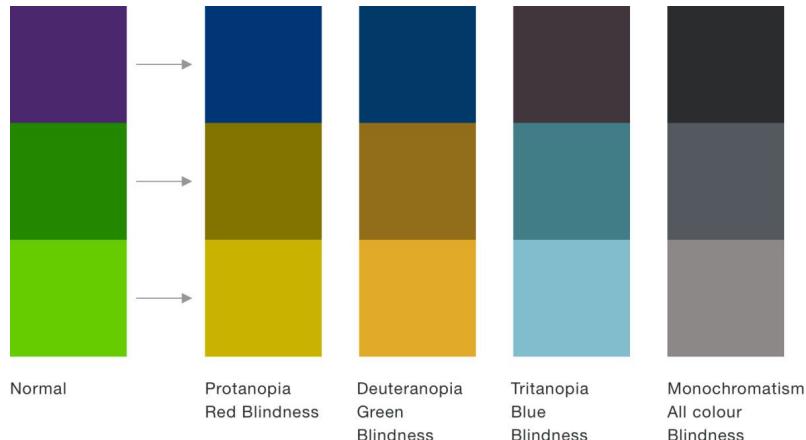
- [TPG Colour Contrast Analyser](#)
- [Color Safe](#)
- [Webaim Contrast Checker](#)
- [Sketch Colour Contrast Analyzer](#)



Colour blindness tools:

- [Coblis colour blind simulator](#)
- [Sim Daltonism](#)

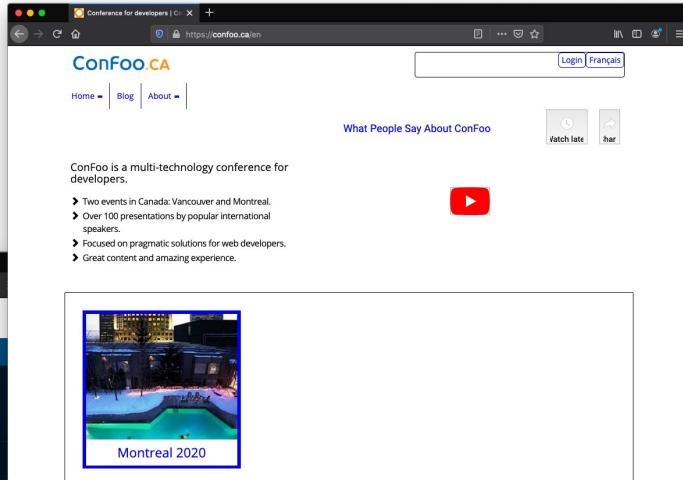
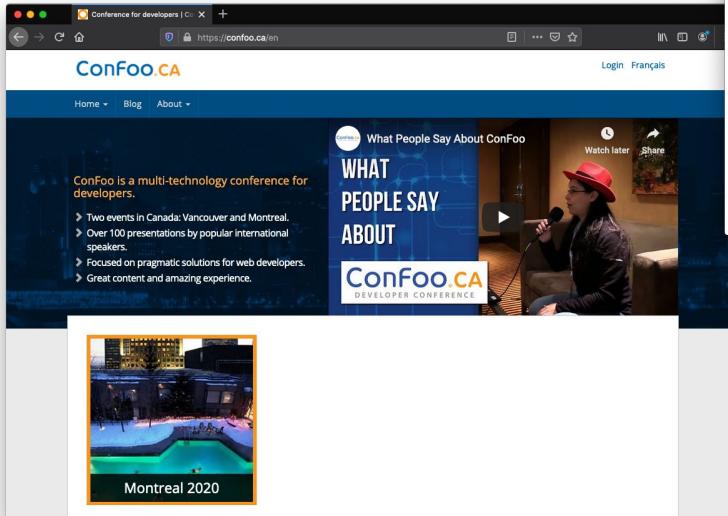
[Webaim: Contrast and Color Accessibility](#)



High Contrast Mode

High contrast mode is an accessibility feature in Windows to help people with low vision

Windows support: High Contrast Mode



Tip:

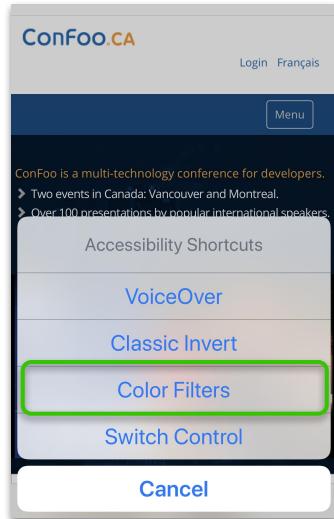
FireFox Colour Settings can simulate high-contrast mode

Web usability: FireFox colour settings

Inverse / Grayscale

On mobile devices you can test your designs against other options

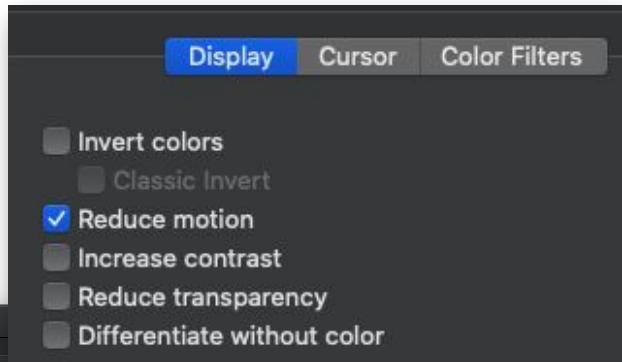
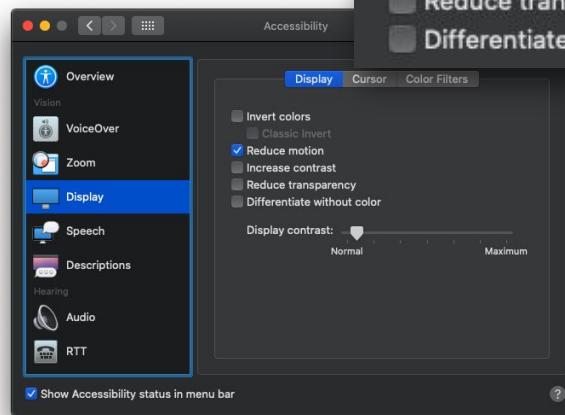
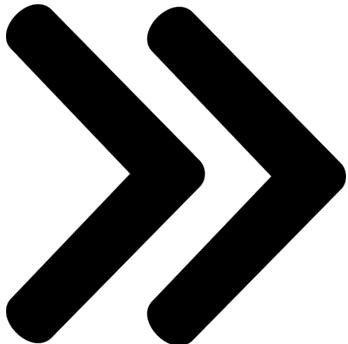
Use preferences on your iPhone



Reduced motion

- If your animation provides meaning or purpose
- Make animation subtle if reduced motion is active

[A11y 101: Reduced Motion](#)



Screen reader

Considering what we've covered, the functionality should work with a screen reader

Tips:

- Use Semantic content structure
(`<headings> <lists> <landmarks>`)
- Use ARIA, only if it's needed
- Take your time to learn how the screen reader works
 - Keyboard navigation is different than tabbing

[Designing for Screen Reader Compatibility](#)

Headers

- 2 Only at the Apple Online Store
- 3 Accessorize your new gear.
- 4 Get the fastest iPhone ever.
- 4 Get free iPod laser engraving.
- 2 iTunes Movie Trailers
- 2 Hot News Headlines
- 3 iPod touch + Edu Apps = Happy Students
- 3 Camera Pro Preaches iPhone Photography
- 3 Global Mobile U
- 3 How the iPhone Could Reboot Education
- 3 30 Must-Have Games for iPhone and iPod touch
- 2 MobileMe
- 2 Video Tutorials
- 3 View Hundreds of Tutorials:
- 3 Turn your photos into treasures with iPhoto.

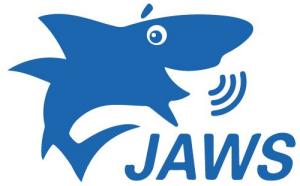
Screen reader combinations



VoiceOver
with
Safari



NVDA
with
FireFox



JAWS
with
Edge/Explorer



Android
with
Talkback*



iPhone
with
VoiceOver

Tips: test with the appropriate tools. Screen readers work better with certain browsers.



Thank you

