

The Web We Make

Andrew Woods

WordCamp Seattle

2016 October 30 Sunday

What The Web Does

- ▶ Expands your world
- ▶ Provides opportunity
- ▶ Access to resources
- ▶ How we participate in modern society

Without The Web

- ▶ Open Source
- ▶ Shopping
- ▶ Movies & Music
- ▶ Podcasting
- ▶ Travel
- ▶ Transit

Why We Make The Web

- ▶ We create solutions for people
- ▶ We share and consume knowledge
- ▶ It connects all of us
- ▶ We buy and sell goods / services
- ▶ It's our job

Accessibility

Accessible websites benefit everyone, not just those with disabilities.

United Nations

P.O.U.R. — The Principles Of Accessibility

- ▶ Perceivable
- ▶ Operable
- ▶ Understandable
- ▶ Robust

<http://webaim.org/articles/pour/>

Perceivable

3 Senses For Perceiving Web Content

- ▶ Sight
- ▶ Sound
- ▶ Touch

Perceivable Solutions

- ▶ Provide text alternatives
- ▶ Provide captions for video content
- ▶ Make content adaptable
- ▶ Use sufficient color contrast
- ▶ Descriptive form labels / buttons

Operable

Operable Solutions

- ▶ Give users enough time
- ▶ Help users navigate and find content
 - Implement skip links
 - Design your focus indicator
- ▶ Don't remove the ability to zoom

Understandable

Understandable Solutions

- ▶ Write in simple language
- ▶ Content appears and operates predictably
- ▶ Specify language of page and parts
- ▶ Use `<abbr>` to expand abbreviations

I looked through it, but the
only thing I understood were
the commas

Buffy Summers
Season 3 Episode 21

Robust

Robust Solutions

- ▶ Consider current and future technologies
- ▶ Build solutions with standards
- ▶ Flexibility is key

Four Abilities

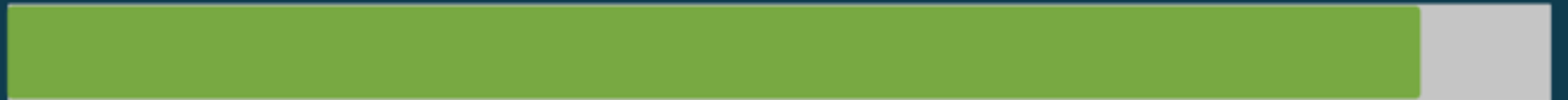
- ▶ Sight
- ▶ Sound
- ▶ Cognitive
- ▶ Motor



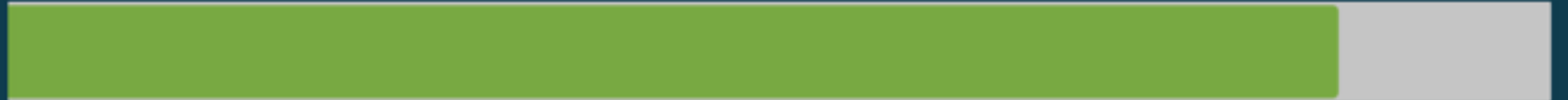
Sight 89%



Sound 94%



Cognitive 91%



Motor 85%



Sight

Visual Disability

Visual Disabilities

- ▶ Blind – total loss of sight
- ▶ Color blind
 - Men: 8%
 - Women: 0.5%
- ▶ Low Vision – need to zoom

Visual Solutions

- ▶ Provide text alternatives for non-text content
- ▶ Good color contrast
- ▶ Don't rely on color alone

Sound

Auditory Disability

Auditory Disabilities

- ▶ 4 Degrees of Hearing Loss
 - Mild, Moderate, Severe, Profound
- ▶ Hard of Hearing

Auditory Solutions

- ▶ Video captions
- ▶ Live captions
- ▶ Transcripts

Cognitive

Perception and Acuity

Cognitive Disabilities

- ▶ Memory
- ▶ Problem Solving
- ▶ Attention
- ▶ Comprehension

Cognitive Solutions

- ▶ Document structure and organization
- ▶ Good line spacing and line lengths
- ▶ Avoid using all capital letters
- ▶ Avoid flashing or scrolling content
- ▶ Break up a process over multiple pages

Motor

Touch and Physical Control

Motor Disabilities

- ▶ Spinal Cord Injury
- ▶ Damage or Loss of Limb
- ▶ Multiple Sclerosis
- ▶ Arthritis
- ▶ Parkinson's Disease
- ▶ Muscular Dystrophy

Motor Solutions

- ▶ Navigate by keyboard
- ▶ Heavy use of assistive technology

So What?

Why Does It Matter?

Why Does It Matter?

- ▶ Accessibility is usability
- ▶ Improve your customer base
- ▶ You could be developing for your future self

Status Can Change

- ▶ Age
- ▶ Repetition
- ▶ Accidents
- ▶ Disease

More Than Disability

More Than Just Disability

Accessibility is the intersection of people, devices, and circumstances.

A website can be inaccessible to anyone.

**If accessibility isn't central to
what you do, you aren't
doing user experience**

Common Factors

- ▶ Lack of color contrast
- ▶ Typography
- ▶ Usability Issues
- ▶ Situational

It's Harder With A Disability

Every combination of factors that makes it hard to you to use a website, makes it at least twice as hard for someone who has a disability.

Progressive Enhancement

Philosophy

- ▶ Start with a strong, common foundation
- ▶ Feature detection
- ▶ Enhance with awesome features

**It's not about working to the
lowest common denominator.
It's about starting there**

Jeremy Keith

Layered Approach

- ▶ Content — HTML markup
- ▶ Presentation — CSS styles
- ▶ Behavior — JS scripting

CSS

```
.panel {  
    background-color: black;  
    background-color: rgba(0, 0, 0, .7);  
    color: #ffffff;  
}
```

Value Of Progressive Enhancement

- ▶ Lets browser deliver its best experience
- ▶ Creates more robust solution
- ▶ Prevents “Looks best in ...” problem

Fault Tolerant

- ▶ Browsers fail gracefully on HTML / CSS
- ▶ Unobtrusive Javascript
- ▶ Feature Detection

Foundation

- ▶ Accessibility
- ▶ Responsive Design
- ▶ New Features
- ▶ Backwards Compatibility

Ethos

Purpose

- ▶ Designers are important – We need them
- ▶ We are the builders of the web
- ▶ We need to be leaders
- ▶ We need to help people along

An accessible web is a better web for smartphones and other devices, showing how we all benefit from the inclusive mindset.

Tim Berners-Lee

We Are Wordpress

- ▶ Over 25% of the web runs WordPress
- ▶ Over 80% the web run PHP

PHP Usage Stats: bit.ly/1B6GJRL

The Choices We Make

- ▶ We can have a significant impact
- ▶ At every design stage, we make decisions

User Experience Is Important

- ▶ Consider each users experience
- ▶ Use Javascript responsibly
- ▶ Content first, then Javascript

What kind of web do you want to create?

Thank You

Andrew Woods

Seattle PHP

<http://andrewwoods.net>

@awoods



Resources — General

- ▶ WCAG 2.0 – <http://bit.ly/2bIKahy>
- ▶ W3C ARIA – <http://bit.ly/22YZiSO>
- ▶ WordPress A11Y – <http://bit.ly/2eBbgiW>
- ▶ UN Accessibility Guidelines – bit.ly/1PV51TJ

Resources — Organizations

- ▶ WebAIM – <http://webaim.org/resources/>
- ▶ Simply Accessible – <http://bit.ly/2eBcVoK>
- ▶ Deque Systems – <http://bit.ly/2ezrqvR>

Resources — Supplemental

- ▶ Jeremy Keith — <http://adactio.com>
- ▶ Marcy Sutton — <https://marcysutton.com>
- ▶ The Web at 25 — <http://bit.ly/2beDHoL>
- ▶ 456 Berea Street — <http://bit.ly/2dEv5nF>

Resources — Videos

- ▶ Leonie Watson – <https://vimeo.com/167255877>
- ▶ Marcy Sutton – <https://vimeo.com/144596949>
- ▶ Jeremy Keith – <https://vimeo.com/118146193>
- ▶ Derek Featherstone – <https://vimeo.com/31072025>