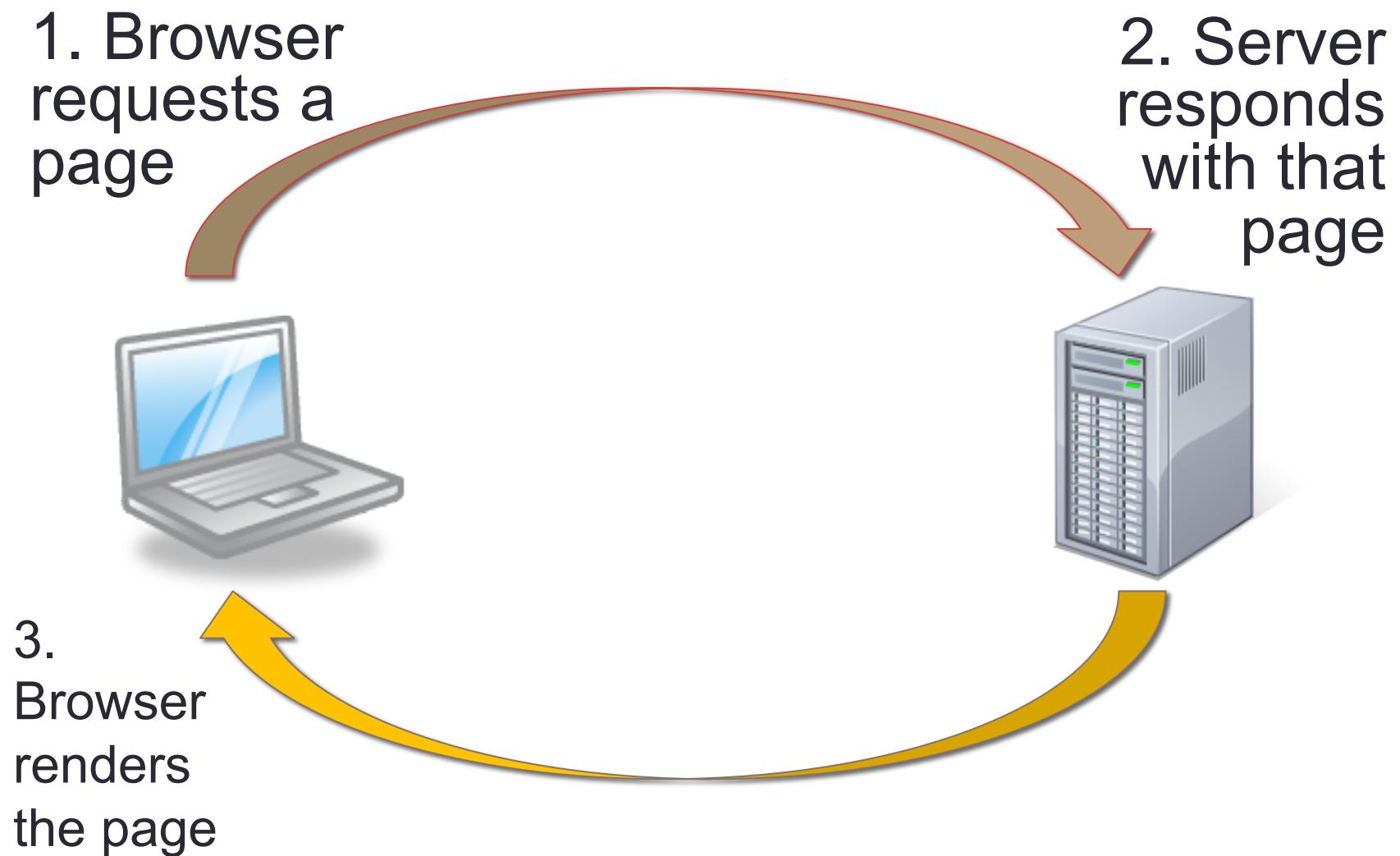


Accessibility 101

Agenda for the workshop

- This overview of a11y
- Hands on: Build a couple of typical pages
- Discuss types of disabilities and their accommodations
- Hands on: Learn a few a11y tools
- Learn to make images, graphs, tables, and text accessible
- Hands on: Apply that to our pages
- See how to make page layout accessible
- Hands on: Apply that to our pages
- Learn to make our forms accessible
- Hands on: Apply that to our pages
- Learn ARIA attributes
- Examine some testing tools
- Hands on: Make an inaccessible site accessible using all the tools and techniques we learned throughout

Typical scenario





Different browsers lead to different renderings

How do the browser manufacturers know what to draw?



The image cannot be displayed. Your computer may not have enough memory to open the image, or the image may have been corrupted. Restart your computer, and then open the file again. If the red x still appears, you may have to delete the image and then insert it again.

- Answer: The World Wide Web Consortium published specifications
- No one is required to comply

```
<!DOCTYPE html>

<html>

  <head>
    ...
  </head>
  <body>
    ...
  </body>
</html>
```

HTML is the
language of the
web

So, what's all this about accessibility?

- 56.7 million Americans (18.7% of the U.S. population) have some type of disability and out of this number, an estimated 38.3 million (12.6%) have a severe disability.
- 19.9 million (8.2%) have difficulty lifting or grasping. This could, for example impact their use of a mouse or keyboard.
- 15.2 million (6.3%) have a cognitive, mental, or emotional impairment.
- 8.1 million (3.3%) have a vision impairment. These people might rely on a screen magnifier or a screen reader, or might have a form of color blindness.
- 7.6 million (3.1%) have a hearing impairment. They might rely on transcripts and / or captions for audio and video media.

And why do we care?

1. It helps our organization
 - SEO
 - Site is just easier
2. It helps everyone (more on this next chapter)
3. It's the law
4. It's the right thing to do

Legal issues



WAI

WCAG

ARIA

A

POUR

Terms

AAA
AA

to know

ADA

RIA

Section 508

W3C

W3C

- WorldWide Web Consortium
- Sets the standards for HTML and CSS

WAI

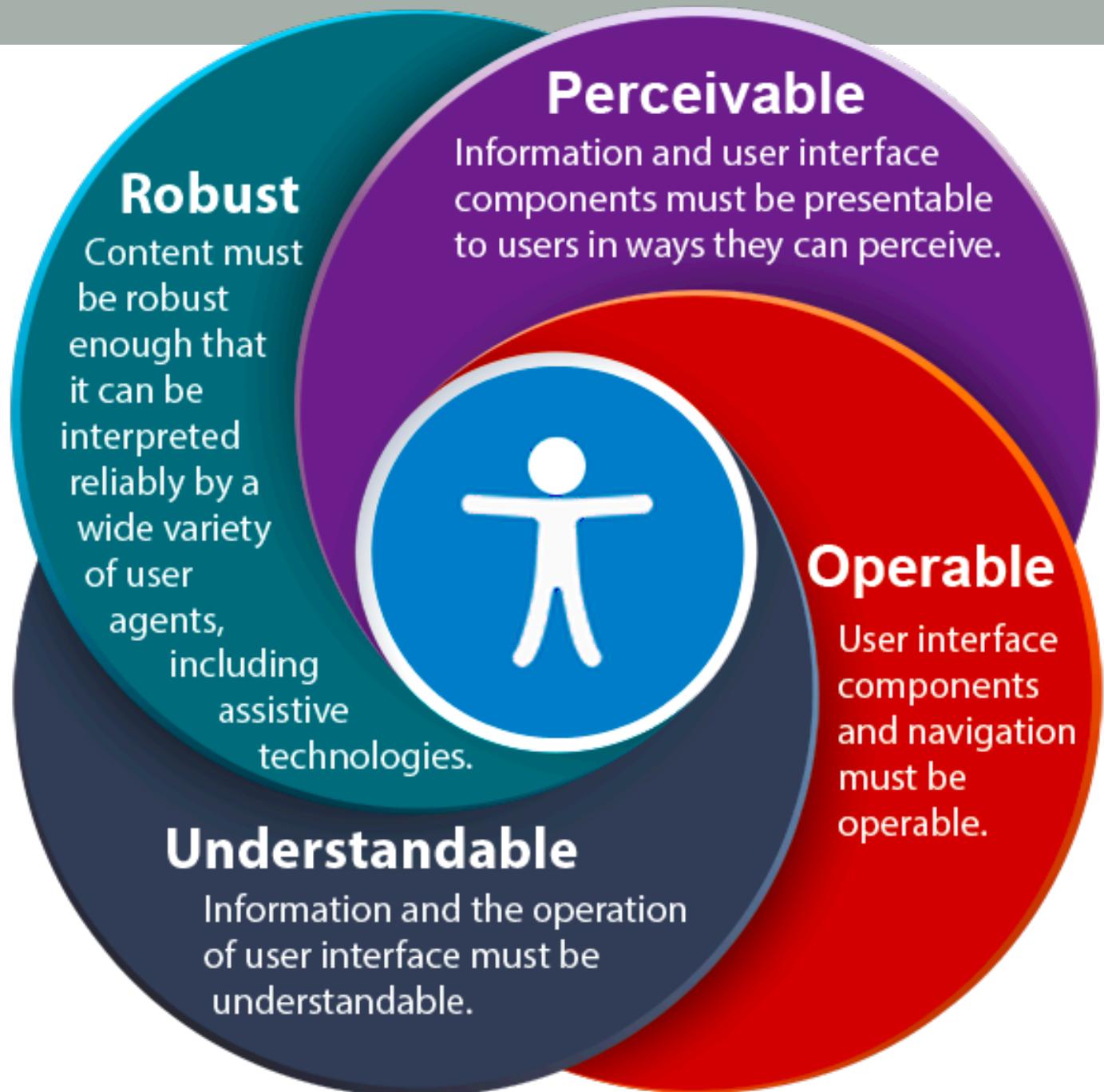
- The W3C's Web Accessibility Initiative
- "We all need to be better about making web sites usable by people with disabilities."

WCAG

- WAI led to guidelines ...
- Web Content Accessibility Guidelines
- <https://www.w3.org/TR/WCAG20/>

POUR

These are the WCAG's principles for accessibility



Guidelines

- The principles are too broad, so they're broken down into guidelines

A, AA, AAA

- You can be 100% compliant with all of the WCAG 2.0 guidelines ...
- AAA
- ... or you can be mostly compliant ...
- AA
- ... or you can be kind of compliant ...
- A

How they fit together

Principles	Guidelines	Level A	Level AA	Level AAA
1. Perceivable	1.1 Text Alternatives 1.2 Time-based Media 1.3 Adaptable 1.4 Distinguishable	1.1.1 1.2.1 – 1.2.3 1.3.1 – 1.3.3 1.4.1 – 1.4.2	1.2.4 – 1.2.5 1.4.3 – 1.4.5	1.2.6 – 1.2.9 1.4.6 – 1.4.9
2. Operable	2.1 Keyboard Accessible 2.2 Enough Time 2.3 Seizures 2.4 Navigable	2.1.1 – 2.1.2 2.2.1 – 2.2.2 2.3.1 2.4.1 – 2.4.4		2.1.3 2.2.3 – 2.2.5 2.3.2 2.4.8 – 2.4.10
3. Understandable	3.1 Readable 3.2 Predictable 3.3 Input Assistance	3.1.1 3.2.1 – 3.2.2 3.3.1 – 3.3.2	3.1.2 3.2.3 – 3.2.4 3.3.3 – 3.3.4	3.1.3 – 3.1.6 3.2.5 3.3.5 – 3.3.6
4. Robust	4.1 Compatible	4.1.1 – 4.1.2		

- Chart by Michael Gaigg. Used with permission

ADA

- Americans with Disabilities Act
- Prevents discrimination against people with disabilities for employment in a government position.
- Updated due to changing technology with the ...

Rehabilitation Act of 1973

- Says that US Federal agencies and those who receive federal funds cannot discriminate based on disabilities.
- It has lots of sections but the one we are most affected by is ...

Section 508

- It requires all Federal electronic content to be accessible.
- The most applicable standards for electronic content are:
- 1194.21 Software applications and operating systems
- 1194.22 Web-based intranet and internet information and applications

WCAG vs Section 508

WCAG 2.0 is a
superset of
508

WCAG 2.0

Section 508