Accessibility

What

…Web accessibility means that people with disabilities can perceive, understand, navigate, and interact with the Web, and that they can contribute to the Web…

—https://www.w3.org/WAI/intro/accessibility.php

Context

- Age-related impairments
- Multiple disabilities
- Health conditions
- Changing abilities
- Temporary impairments
- Situational limitations

Primary Considerations

- Auditory
- Cognitive and neurological
- Physical
- Speech
- Visual
- Communication
- Language

“Web accessibility encompasses all disabilities that affect access to the Web, including visual, auditory, physical, speech, cognitive, and neurological disabilities.”

—https://www.w3.org/WAI/intro/accessibility.php

https://www.w3.org/WAI/intro/people-use-web/diversity#diversity

Why Accessible?

- Because you should
- You will get more users
- Google can read your site better, so you will have a more relevant listing in search results (and probably higher)
- If you receive government funding you are legally obligated to follow accessibility guidelines
- If you follow universal design principles, your site could improve for lots of people

Progressive Enhancement

what, why

Layers

1. HTML & Content (alt tags on images)
2. CSS (presentation, visual)
3. Javascript (interaction, animation + visual)

Designing in layers
peel off layer 3 and layers 2 and 1 should still work

Why

- Provides accessibility for screenreader usage
- Much better browser compatibility
- Support slow internet connections
- Google can read your site, so you get good SEO

including different version releases
there are literally thousands of different browsers, with different capabilities in use
you cannot test all of them

Example

http://massart.andrewringler.com/web1-f16/materials/examples/wk6/0-owlcarousel-progressive-enhancement/index.html

progressive enhancement example (in safari)
disable javascript, & styles
show what it looks like and behaves as you add back

listen to page with screen reader
show what images without alt text sound like

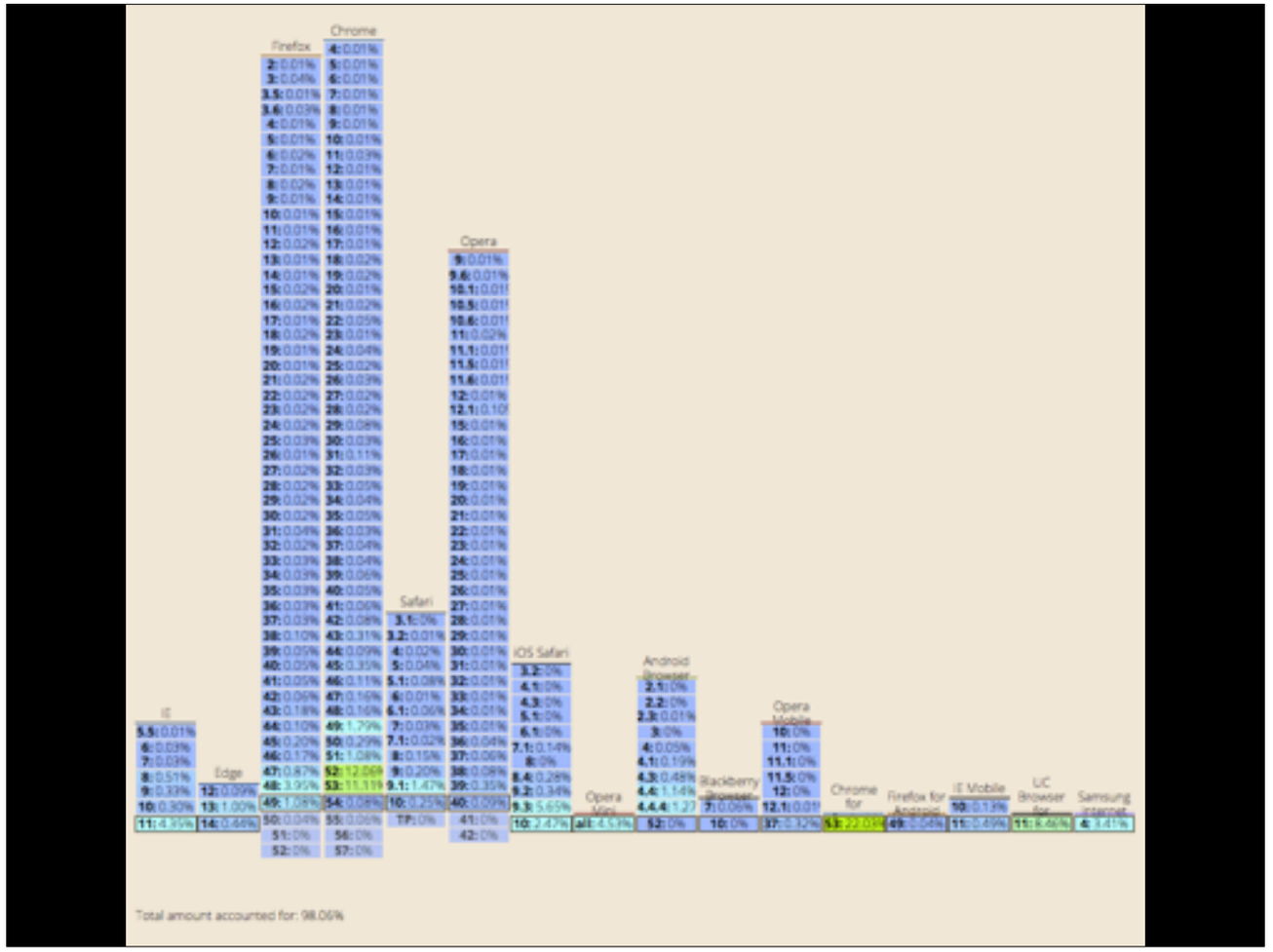
Testing

multiple browsers and with different users

Why Test

- You will improve your website
- Your users use a LOT of different web browsers

lot of diversity
http://caniuse.com/usage_table.php



Top three are firefox, Chrome and opera

Test Locally

Safari
Chrome
Firefox

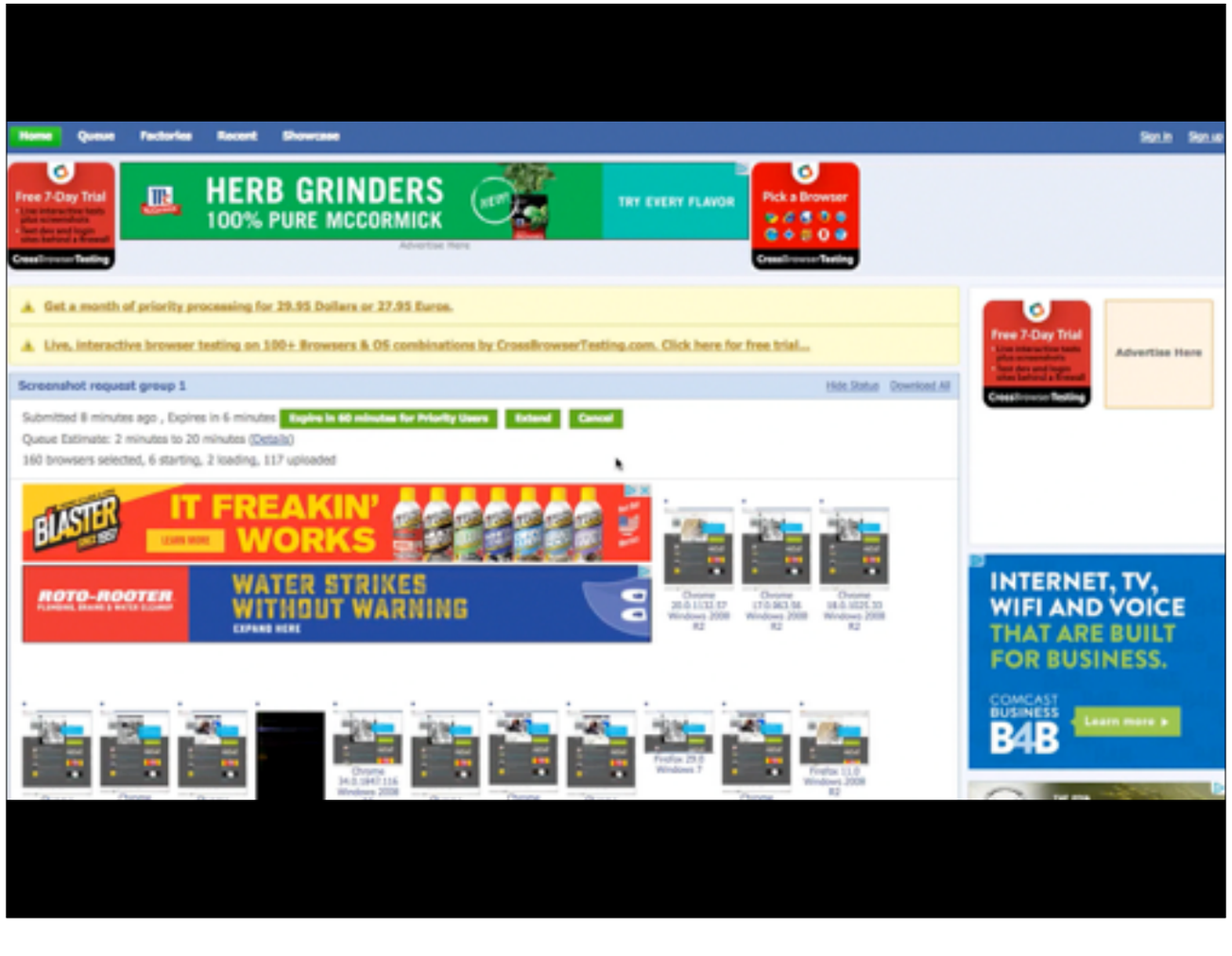
download older versions of some
https://ftp.mozilla.org/pub/mozilla.org/firefox/releases/

Test on Phone
and tablet if you have

Virtual Machines

- IE virtual machines: https://www.modern.ie
- http://browsershots.org/

either install your own, or use a web-based tool


Home
Queue
Factories
Recent
Showcase
Sign in
Sign up
Free 7-Day Trial
HERB GRINDERS
100% PURE MCCORMICK
TRY EVERY FLAVOR
Pick a Browser
Get a month of priority processing for 29.95 Dollars or 27.95 Euros.
Live, interactive browser testing on 100+ Browsers & OS combinations by CrossBrowserTesting.com. Click here for free trial...
Screenshot request group 1
Hide Status
Download All
Submitted 8 minutes ago , Expires in 6 minutes
Expire in 60 minutes for Priority Users
Extend
Cancel
Queue Estimate: 2 minutes to 20 minutes (Details)
160 browsers selected, 6 starting, 2 loading, 117 uploaded
BLASTER
IT FREAKIN' WORKS
ROTO-ROOTER
WATER STRIKES WITHOUT WARNING
Free 7-Day Trial
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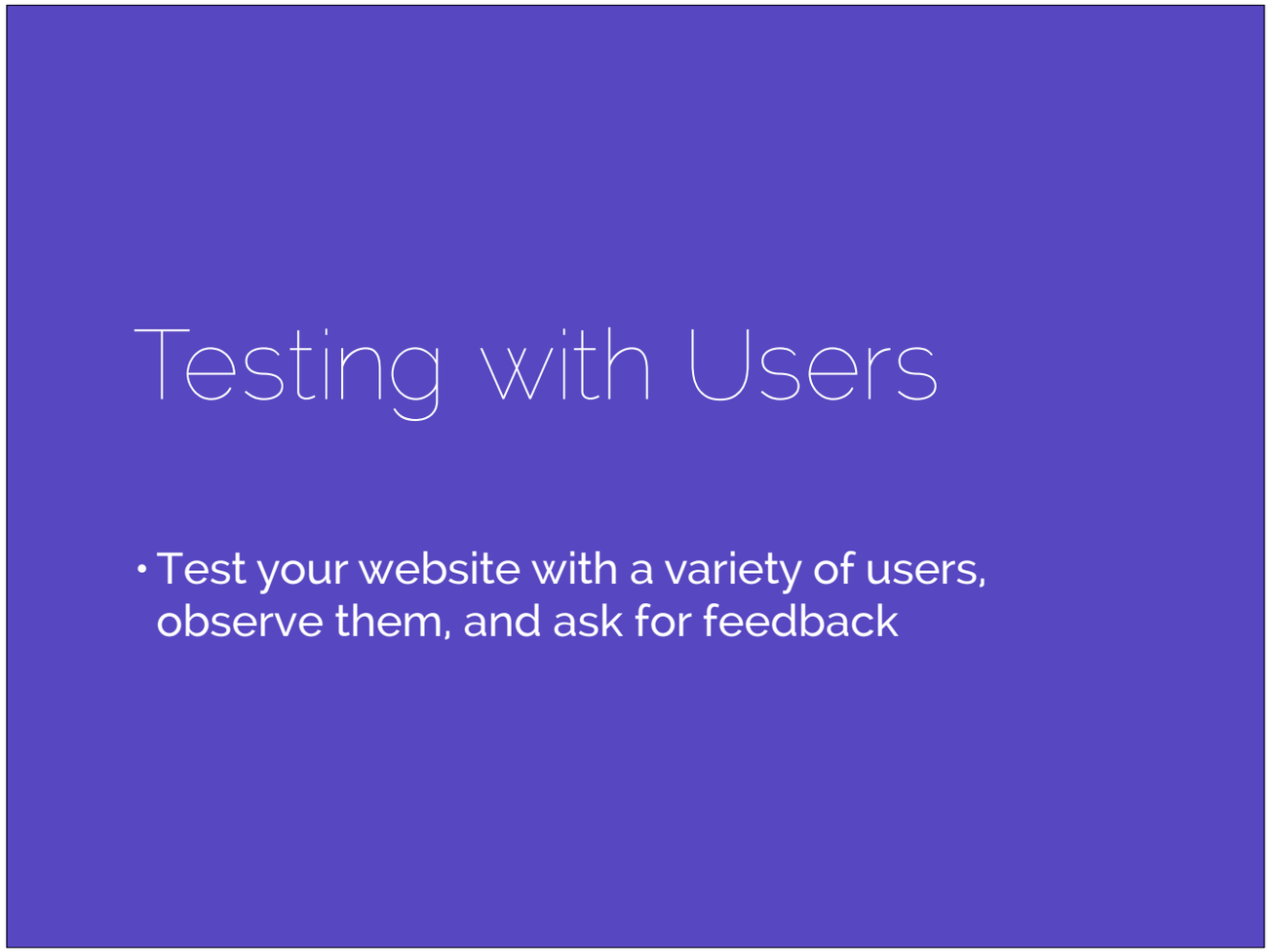


and finally, always test your website with a variety of users. observe them interacting with your website, and ask for feedback.

Accessible Design Resources

multiple browsers

Web

- WebAIM http://webaim.org/
- How People with Disabilities Use the Web @W3C https://www.w3.org/WAI/intro/people-use-web/Overview.html https://www.w3.org/WAI/intro/people-use-web/principles

Books

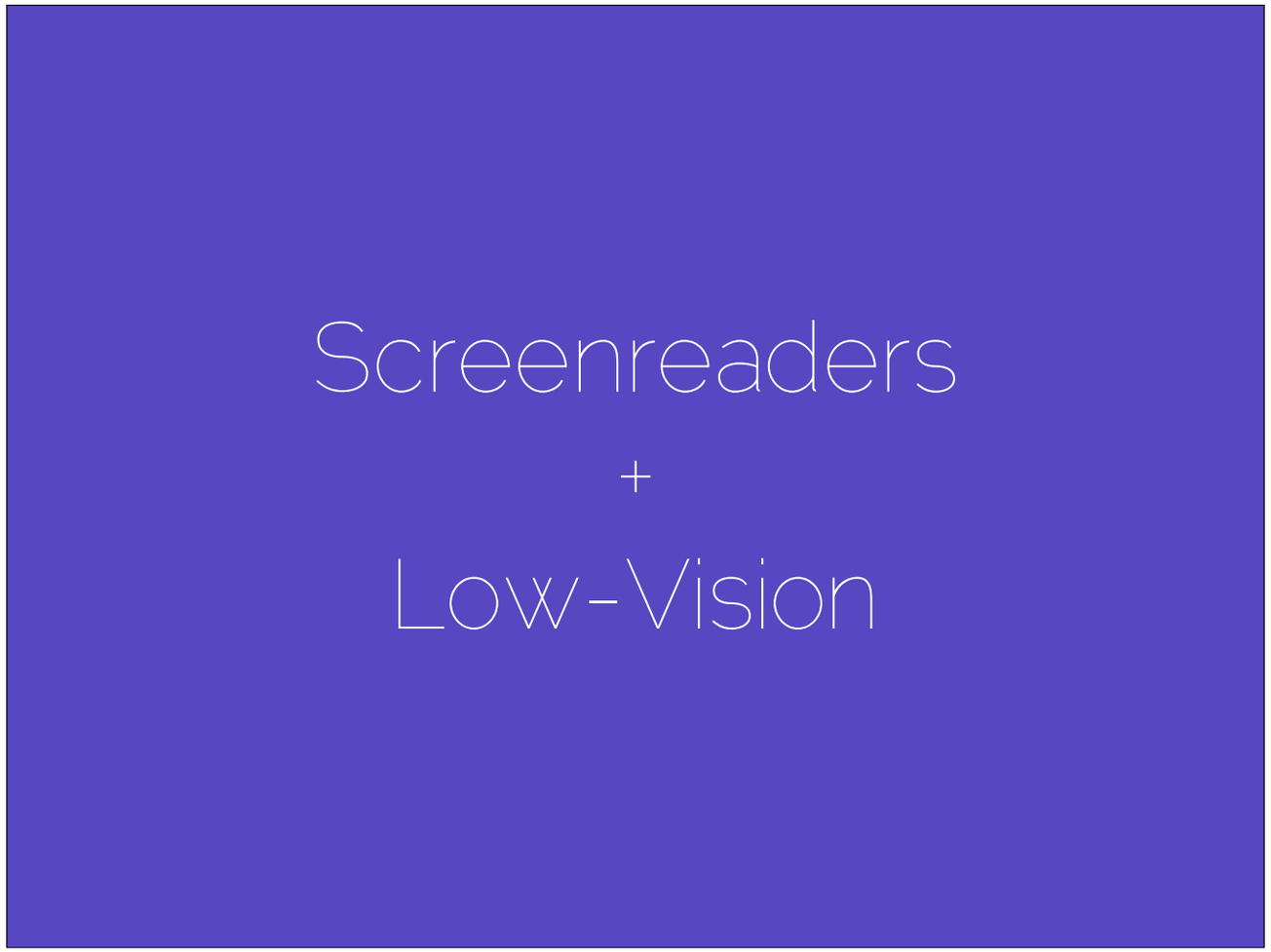
- Adaptive Web Design 1st edition free online: http://adaptivewebdesign.info/1st-edition/
- Designing with Progressive Enhancement. Peachpit/New Riders, 2010 by Scott Jell
- Responsible Responsive Design. A Book Apart, 2014 by Scott Jehl

Screenreaders

multiple browsers

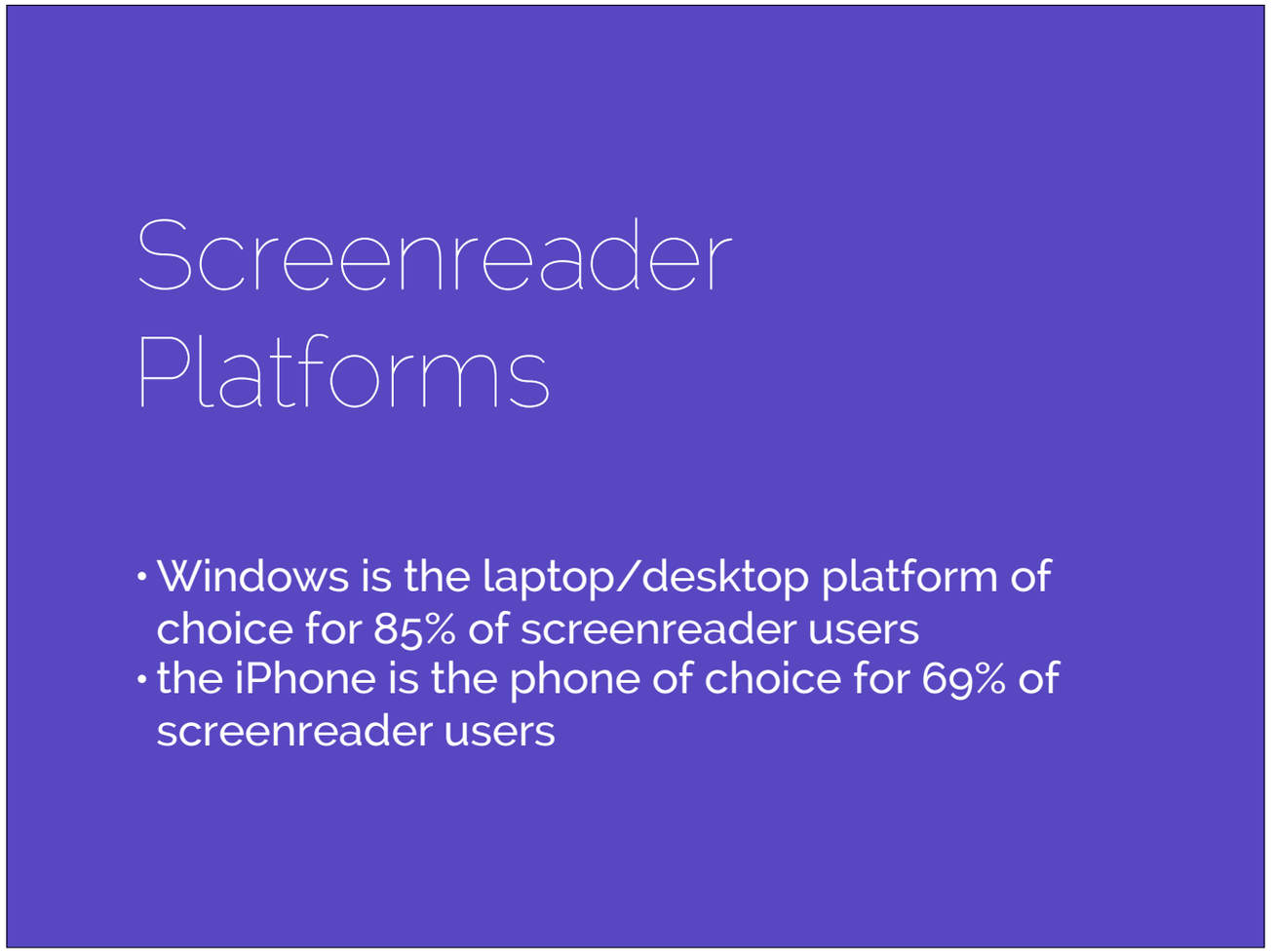
Screenreader usage will just tackle one aspect of visual disability. But, hopefully this exercise will build general awareness for the importance of considering these aspects, and testing, testing ,testing.

https://www.w3.org/WAI/intro/people-use-web/diversity#diversity



Kyle talks about screenreader and low-vision computer access

Extra Slides



85% of screenreader users use Windows on their desktop and 69% use an iPhone

IE, a typical user will use Windows for their Laptop, and iPhone for their phone.

why, in my opinion, Windows has better support for low-vision and screenreader usage. And the iPhone was the first, and only phone with screenreader support for a long time, and probably is still the best.