AQUENT

GYMNASIUM

RESPONSIVE WEB DESIGN

Lesson 10

MATERIALS & ASSIGNMENT

THIS LESSON'S CORE CONCEPTS

1. The word "testing" can mean very different things to different people so we break down responsive testing into three components: viewport (or breakpoint) testing, device testing, and cross-browser compatibility testing.

2. Viewport or breakpoint testing is primarily focused on detecting design or layout issues that show up on different screen widths. Testing is accomplished by slowly expanding or contracting the browser window or using a web application such as responsivepx.com and searching for issues. If a design issue is detected, the next step is to identify the CSS media queries and specifically the styles within a media query that are responsible for the layout problem.

3. Testing on devices is necessary because it identifies issues that basic browser testing will not un-cover. Devices have additional capabilities that software can emulate but not reproduce, such as ori-entation, pixel ratio, monochrome, and more. Additionally, when using a device such as a smartphone you can also test bandwidth or network speed and its effect on your design. To accomplish this, many designers and developers collect popular mobile devices as a device lab and use this to test their sites.

4. Cross-browser compatibility testing is more complex with Responsive Design than with the "stan-dard" web design. Much of this complexity comes from the fact that common elements in Responsive Design such as HTML5 elements, media queries, and related JavaScript are not well supported in the (still popular) older versions of Internet Explorer. Clear decisions about which versions are being supported as well as extra time assigned to testing are important.

5. The file size of the average web page is increasing daily, and one of the side effects is that some crit-ics have stated that responsive websites are not practical from a performance standpoint, especially with devices that rely on slower network connections. To improve performance there are three steps: a.) Treat performance as another aspect of design, b.) Analyze file size of your page with a tool such as YSlow, and c.) Define a "performance budget" for your pages. A performance budget is a fixed file size for a given page that you choose not to exceed.

READINGS

- http://bradfrostweb.com/blog/post/performance-as-design/
  Performance As Design

- http://24ways.org/2012/responsive-responsive-design/
  Tim Kadlec's article on treating performance as a component of the user experience

WEBSITES MENTIONED IN THE PRESENTATION

- http://bradfrost.github.io/this-is-responsive/resources.html#testing

- http://responsivepx.com/

- http://www.quirktools.com/screenfly

- http://dmolsen.com/2012/06/26/how-to-build-a-device-lab-part-1/

- http://html.adobe.com/edge/reflow/

- http://www.ie6countdown.com

- http://www.browserstack.com

- https://speakerdeck.com/paulrobertlloyd/the-edge-of-the-web

- http://httparchive.org/trends.php

- http://validator.w3.org/nu/

- http://jigsaw.w3.org/css-validator/

- http://www.yslow.org

- http://zoompf.com/2012/05/html5shiv-and-serving-content-from-code-repositories

- http://www.w3.org/TR/netinfo-api/

- http://24ways.org/2011/conditional-loading-for-responsive-designs/

- http://filamentgroup.com/lab/ajax_includes_modular_content/

ASSIGNMENTS

1. **Quiz**

2. **Read "Performance As Design" article by Brad Frost**
   http://bradfrostweb.com/blog/post/performance-as-design/

3. **Test & Optimize Your Own Portfolio Page**
   Check your site in older browsers as needed. Run YSlow on your site (yslow.org) and based on the results optimize as needed, most particularly your images as needed.