Mobile Fundamentals

Theory and capabilities of mobile phones and how to design for mobile. The Mozilla Developer Network will be used as the programmming textbook for this course.

- Review Mobile-stats cheatsheet for information on statistics and trends in web usage

Mobile vs Desktop

People tend to use mobile sites for less time than on desktop. People do faster searches on mobile whereas they will do more research focus on

Bounce Rate

> A high bounce rate means that users leave the site quicktly. Generally a high bounce rate isn't a good thing. Mobile tends to have a higher bounce rate.

How is Mobile unique?

Notes from group discussion .In what ways are mobiles different from desktops? * It can make browsing and communication easier * Better user tunnelling

Hardware specifications

- screen rotate
- better cameras
- accelerometor
- tap pay
- rfib
- biometric authentication
- arm chips
- depth perception (multiple cameras)
- landscape(desktop) vs portrait (mobile)
- location
- no cursor no hover

What problems are phones trying to solve

- quick facts

Performance Note

Ads will generate revenue, but they will push google's indexing down.

Common Mobile Design Patterns

How are standards of html, css, and javascript evolved to take advantage of the mobile web.

Terminology

Breakpoint

Points in responsive design where website presentation obviously changes due to changing viewport chracteristics (width, orientation, etc) There will be small breakpoint shifts in resolution and layout as viewport is resized, big breakpoints are really important to set, like 1024px, 700px...

- review graph png that shows breakpoint to optimal screen size.

Cards

Break elements into small card units for localized customization. Flexbox is great for cards.

Adaptive Web

A specific site used for each device. Outdated. Multiple versions of the same site for different devices. Not good for future proofing

Clamp

Used to make responsive font size. Check out the MDN Docs for information on this.

- `font-size: clamp(minpx, #vw, maxpx);`

Content Parity

Content served to phone is the same as what's sent to the desktop.

DOM (Document Object Model)

This reads each of the files and loads the version of the website given into memory. How the website looks to a computer.

Hamburger menu

little site menu icon thing

Fluid Typography

Responsive resizing of typgraphy with viewport units. The math for how to do this with calc expressions can be found here You can now use clamp which is much easier, it is based off the above calc expression.

Media Quieries

Conditional code. The code only runs if a condition is true. Used to be the only way to do responsive design. Css Grid makes this not so important.

Responsive Web

Focused on making sites look and behave optimally on all devices, from desktop to mobile, using

hte same served web files

Viewport

Viewable area of a website

Viewport Units

Define size of elements by the size of the viewport.

- you can make some content invisible until viewport is certain size etc.

Responsive Fundamentals

- 400px to min of 2000px for screen sizes.
- text is most readable at line lengths between 30 and 90 characters long.
  - Fontsize should be smaller on mobile
  - set a maximum width of no more than 90 char
    - max width and another property can be used to keep text between 30 and 90 char
- Scroll Track and max line length are important. Review course information on this. There is a code pen example on Tony's account.