Responsive Design

Set of techniques used to create documents that adapt to the devices on which they are viewed

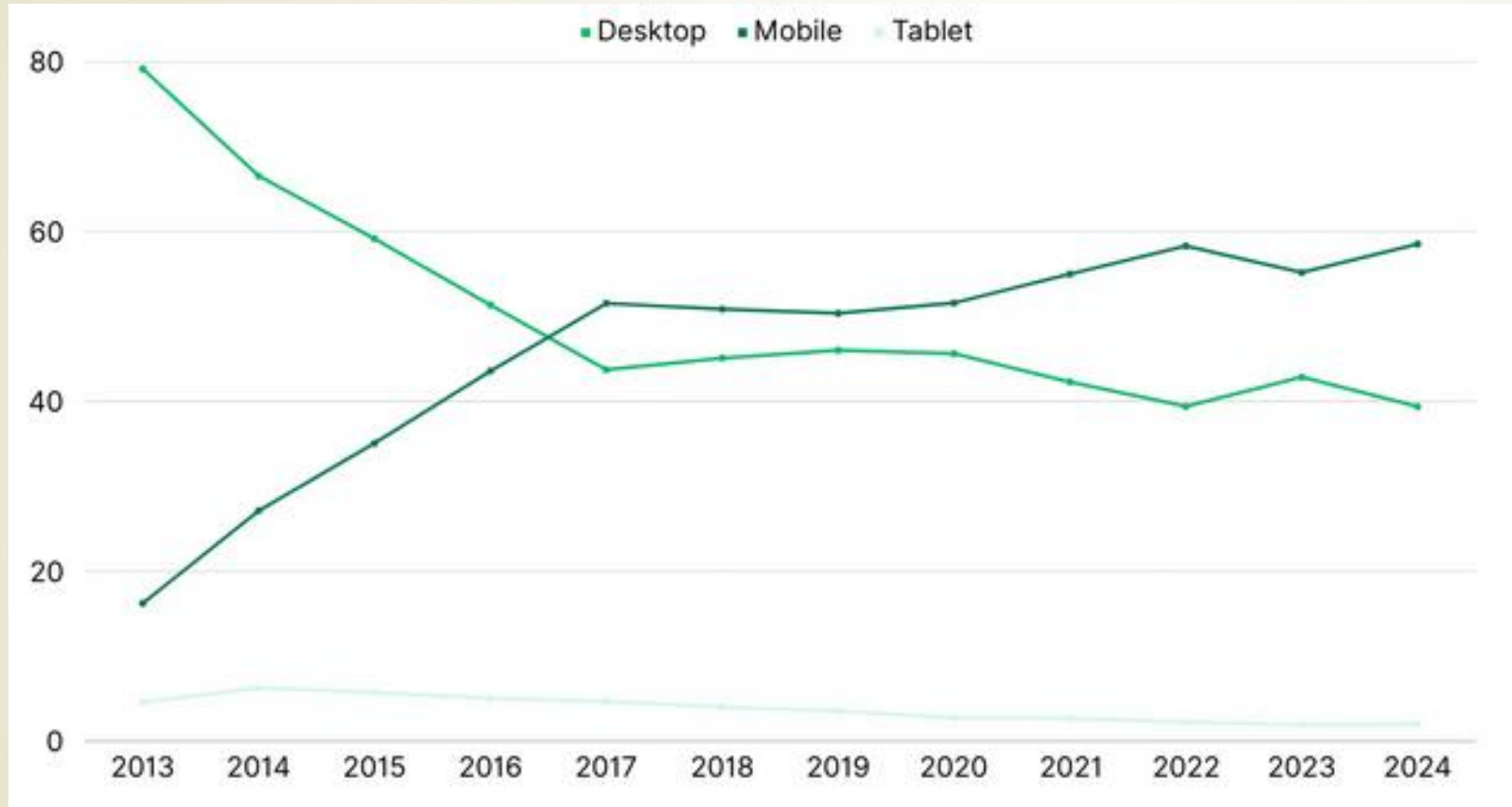# Responsive Design

Examples

Why Responsive Design?

Mobile Devices - % of Global Internet Traffic

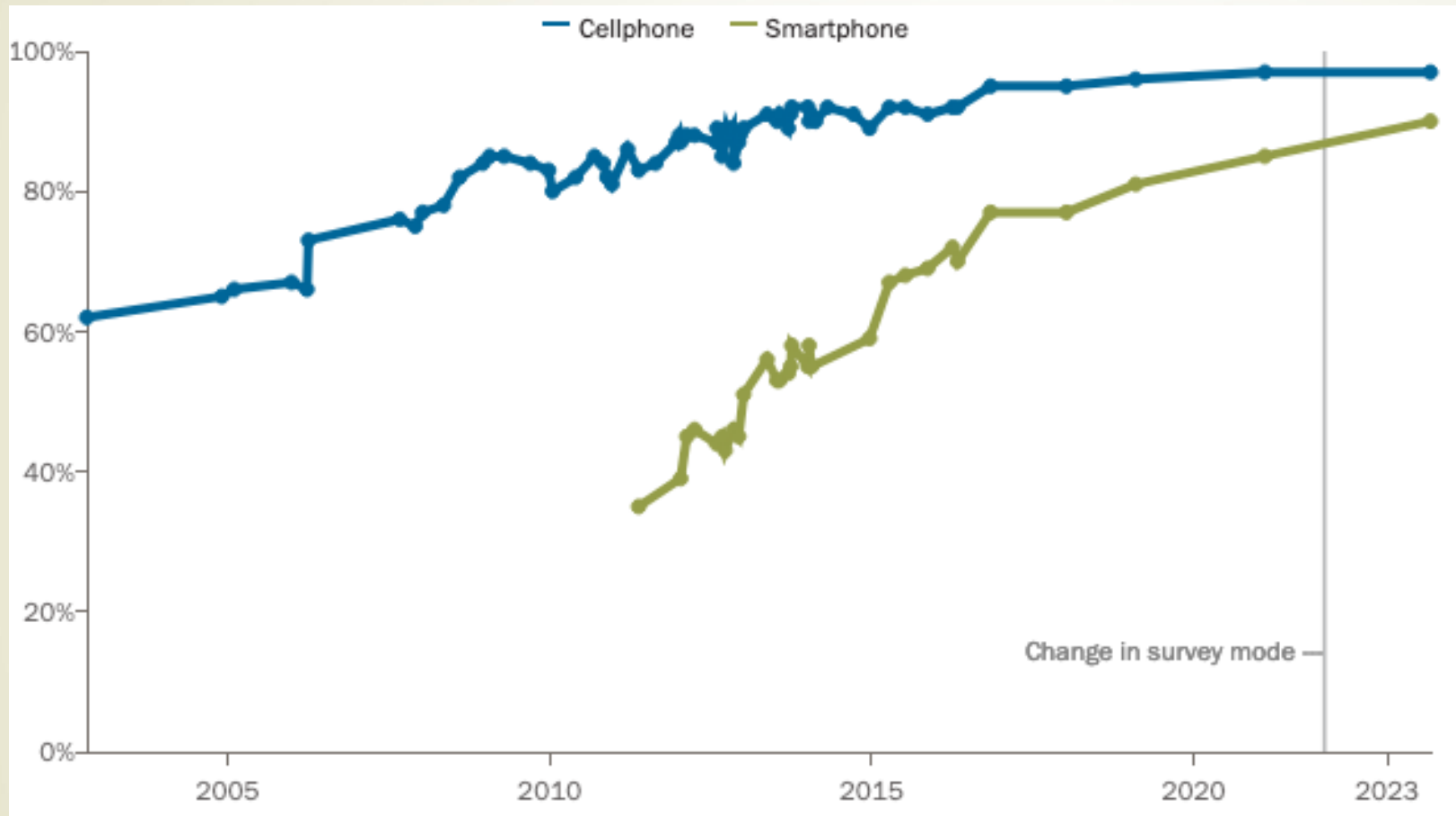https://www.statista.com/statistics/277125/share-of-website-traffic-coming-from-mobile-devices/

Mobile Devices - % of USA Internet Traffic

https://https://www.mobiloud.com/blog/what-percentage-of-internet-traffic-is-mobile

Mobile Phone Ownership - USA

https://www.pewresearch.org/internet/fact-sheet/mobile/

Google's Recommendation - Responsive Design

- Sees same URL and HTML for everyone

- Easier for google to index

- Easier for others to link to
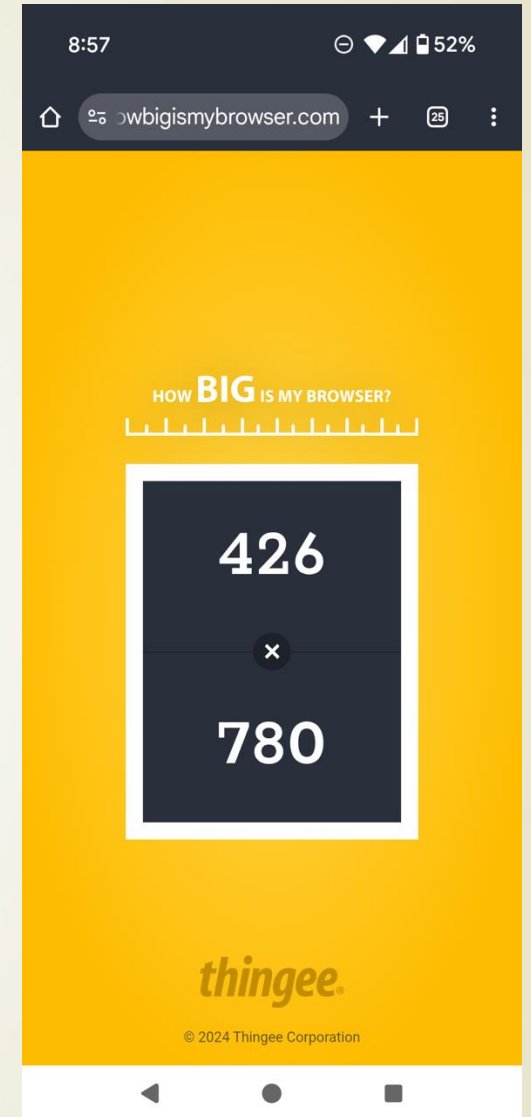
- Easier to manage SEO

Measure Monitor

https://howbigismybrowser.com/
https://www.omnicalculator.com/other/pixels-per-inch

Now Phone – Pixel 5a

https://howbigismybrowser.com/

Now Phone – Pixel 5a

www.gsmarena.com/google_pixel_9_pro-13218.php

Virtual Resolution!

- Accounts for pixel density difference

Responsive Design Code

Doctype

```
<!doctype html>
```

Set Viewport

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

Media Queries

- Use to load external stylesheet(s)

- **Example:** jtc372.net

- ```
  <link href="css/narrow.css"
  rel="stylesheet" media="only
  screen and (max-width:700px)">
  ```

- Evaluates stylesheet when screen width less than 700px

- Order matters!

Text

- Text will not seamlessly scale - may require multiple break points
- **Example:** www.hibeams.com
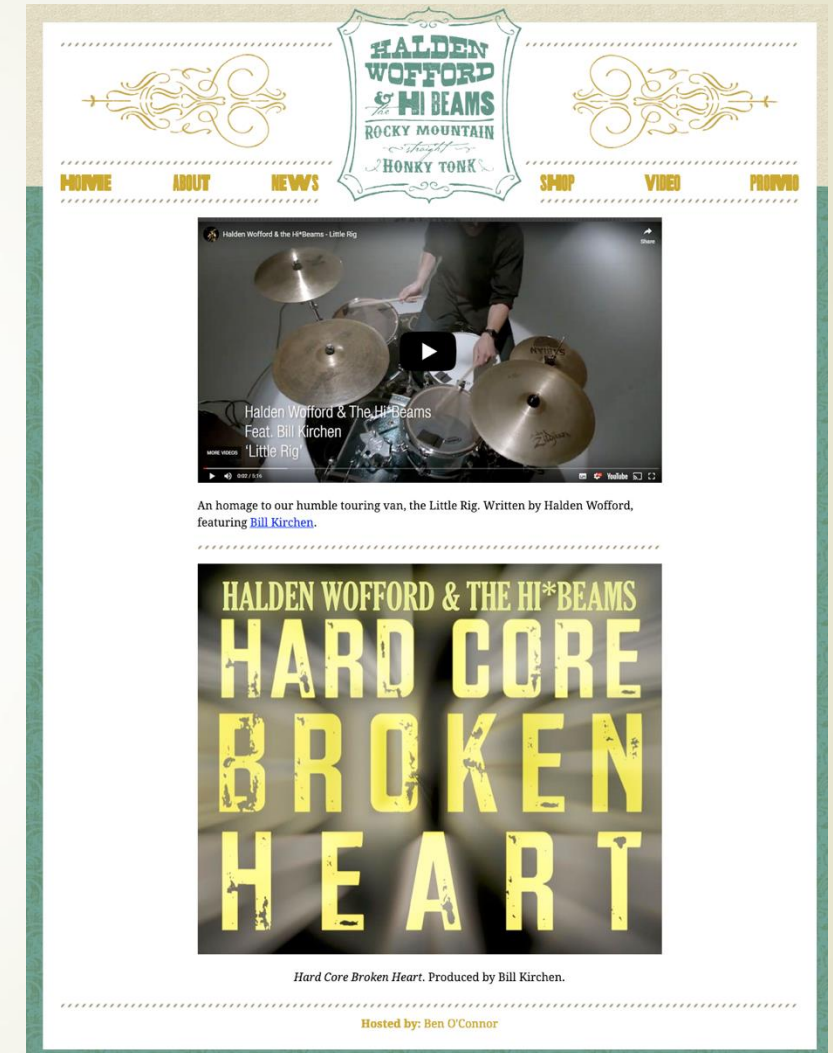
Images

- Images display at native resolution, not virtual resolution

- **Example:** https://www.jtc372.net/course/examples/image-width.html
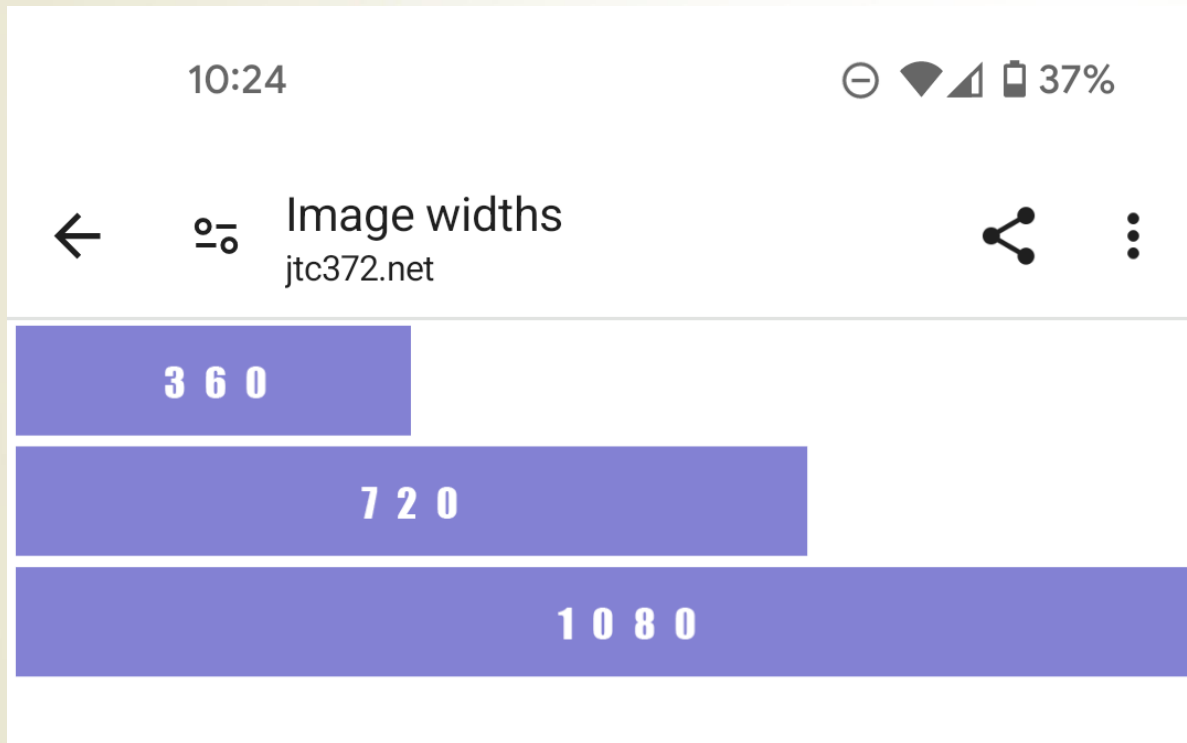
Navigation

- Hamburger Menu

- Collapsed box with 3 lines

- Standard

- Variations

Other...

- Load Time – Google wants 2s

- Do media query exercise together