RESPONSIVE WEB DESIGN

OBJECTIVES

- Responsive Web Design
- Mobile First
- Media Queries

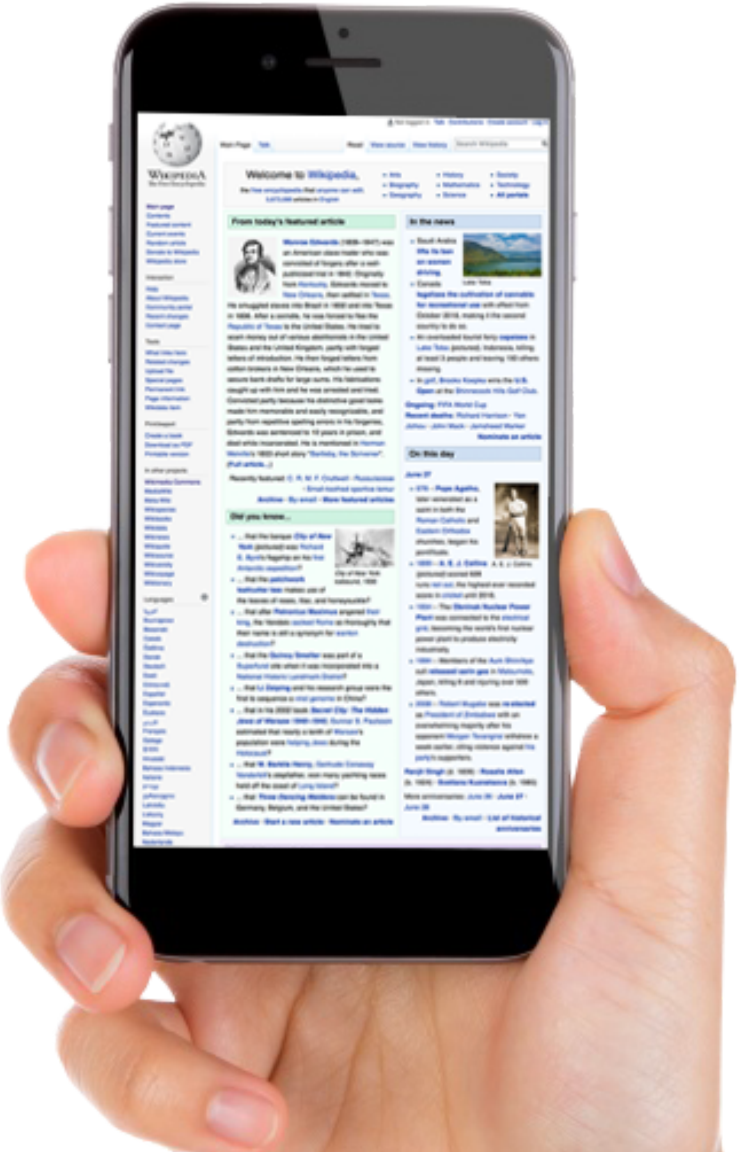
RESPONSIVE DESIGN

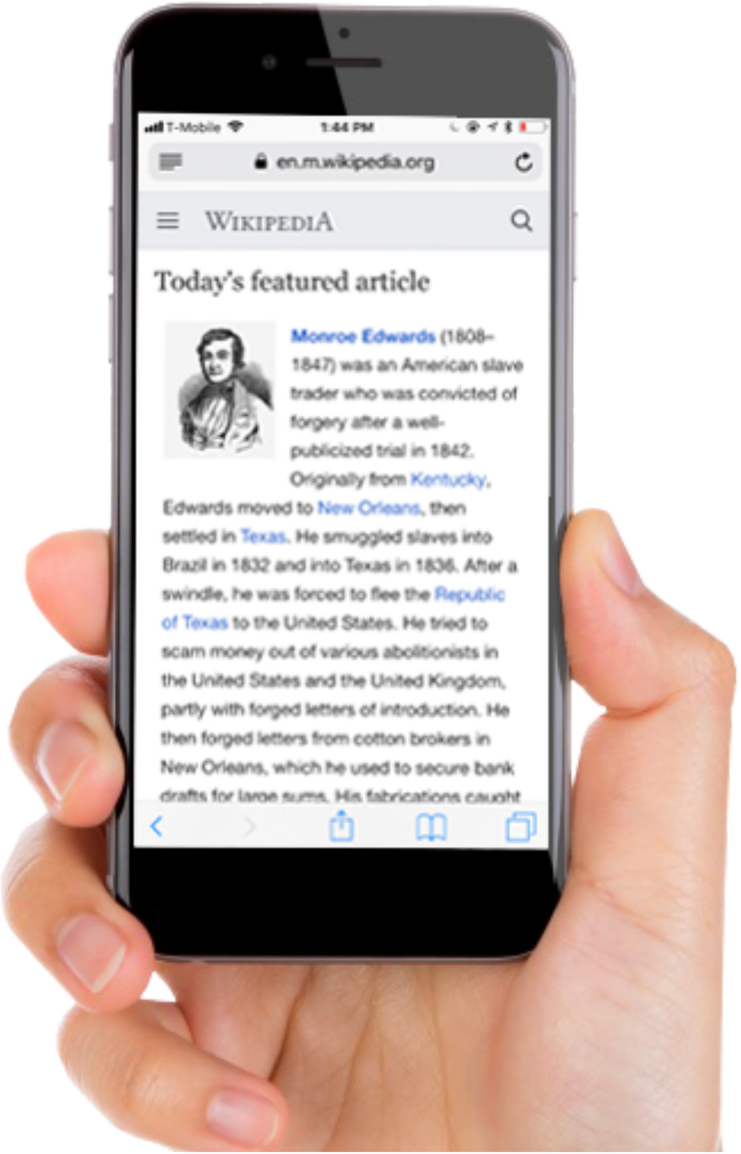
Responsive designs respond to changes in browser width or orientation by adjusting placement, size and behavior of content.

RESPONSIVE MATTERS

- Google will ding you if your pages are not built responsively.
- More importantly, your customers will ding you!!

SCALED VERSUS RESPONSIVE





Today's featured article

Monroe Edwards (1808–1847) was an American slave trader who was convicted of forgery after a well-publicized trial in 1842. Originally from Kentucky, Edwards moved to New Orleans, then settled in Texas. He smuggled slaves into Brazil in 1832 and into Texas in 1836. After a swindle, he was forced to flee the Republic of Texas to the United States. He tried to scam money out of various abolitionists in the United States and the United Kingdom, partly with forged letters of introduction. He then forged letters from cotton brokers in New Orleans, which he used to secure bank drafts for large sums. His fabrications caught

MAKING OUR PAGES RESPONSIVE

RESPONSIVE COMPONENTS

1. Fluid layout and images
2. Viewport meta tag
3. Media queries

THE VIEWPORT TAG

THE VIEWPORT TAG

- Without instructions, mobile devices render pages at typical desktop screen widths, and then scale the pages to fit the mobile viewport.
- If you don't set the viewport meta tag, your **media queries** don't work
- Thank you Apple!

VIEWPORT META TAG

```
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1 >
...
</head>
```

- **width=device-width**: sets the width of the viewport to the width of the device
- **initial-scale=1**: sets the initial zoom level when visiting the page

MEDIA QUERIES

MEDIA QUERIES

- Media Queries allow us to write CSS rules that are applied for specific screen sizes or orientation.
- When the conditions of the query are satisfied the styles within are applied.
- Media Queries can also be used for adapting to other conditions, such as `print` and `speech`.

MEDIA QUERY EXAMPLE

CODE ALONG

```
div {
  height: 50vh;
  background: blue;
}

/* Media queries need to follow the base styles
to be applied correctly */

@media (min-width: 768px) {
  div {
    width: 75%; /* Cascades and overrides the default */
    background: red; /* Cascades and overrides the specified value */
  }
}
```

MEDIA FEATURE

```css
@media (orientation: landscape) {
  /* orientation is a media feature */
}

@media (max-width: 768px) {
  /* max-width is a media feature */
}
```

- **Media features** allow us to selectively apply styles based on a feature of the device or browser in use.
- They include: width and height, the orientation of the device, the aspect-ratio or resolution of the device.

MEDIA TYPES

```css
/* Exclusively used when the page is printed */

@media only print {
  ...
}
```

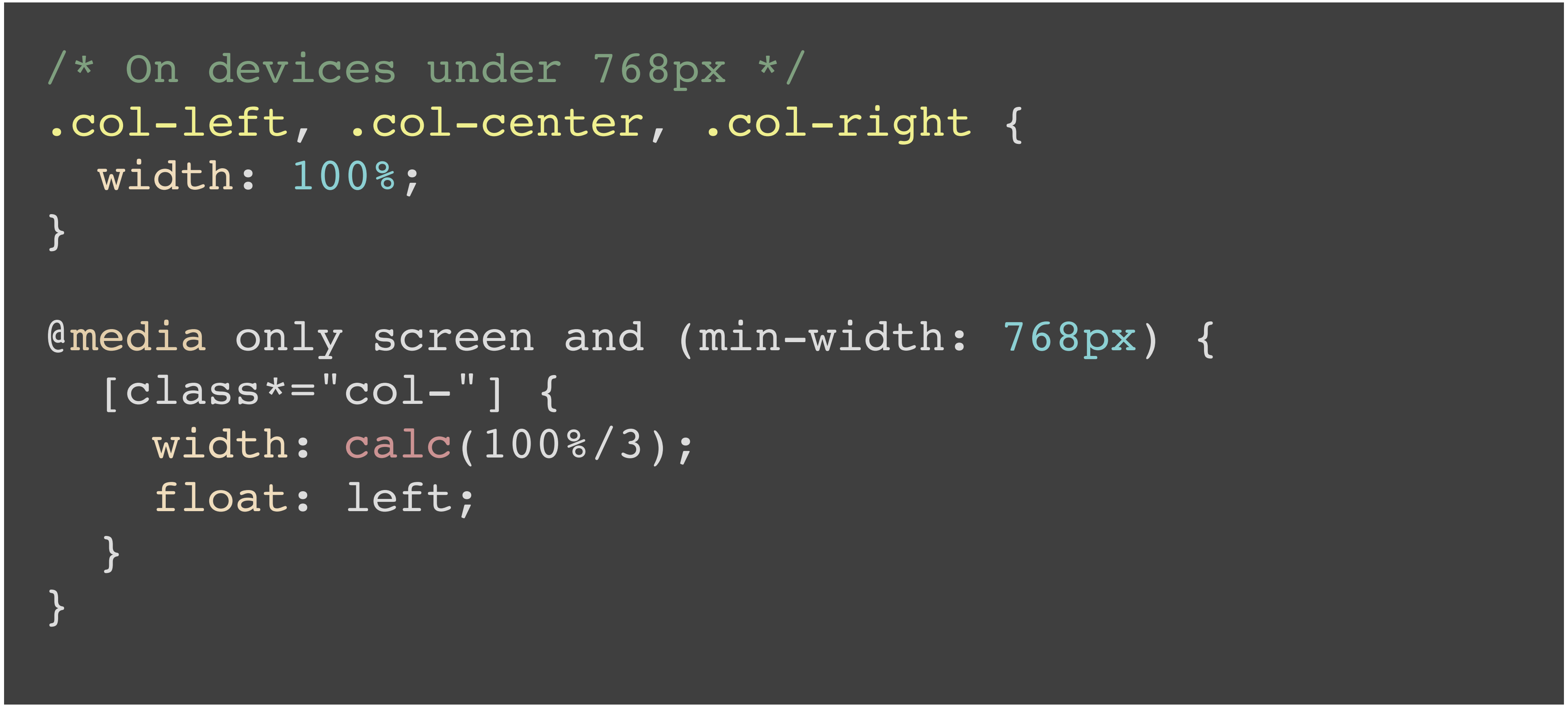
- We can also target the delivery mode with media types.
- There are: `screen`, `speech`, `print`, and `only`.

LOGICAL OPERATORS

```css
/* All of our extra small, small and medium devices in landscape mode */
@media (orientation: landscape) and (min-width: 767.98px) {
  body {
    flex-direction: row;
  }
}

/* Some of our small, all medium and some large devices */
@media (max-width: 950px) and (min-width: 600px) {...}
```

- Media features and types can be combined using operators:
- There are: `and`, `or`, `not`.

COMBINING MEDIA TYPES & MEDIA FEATURES



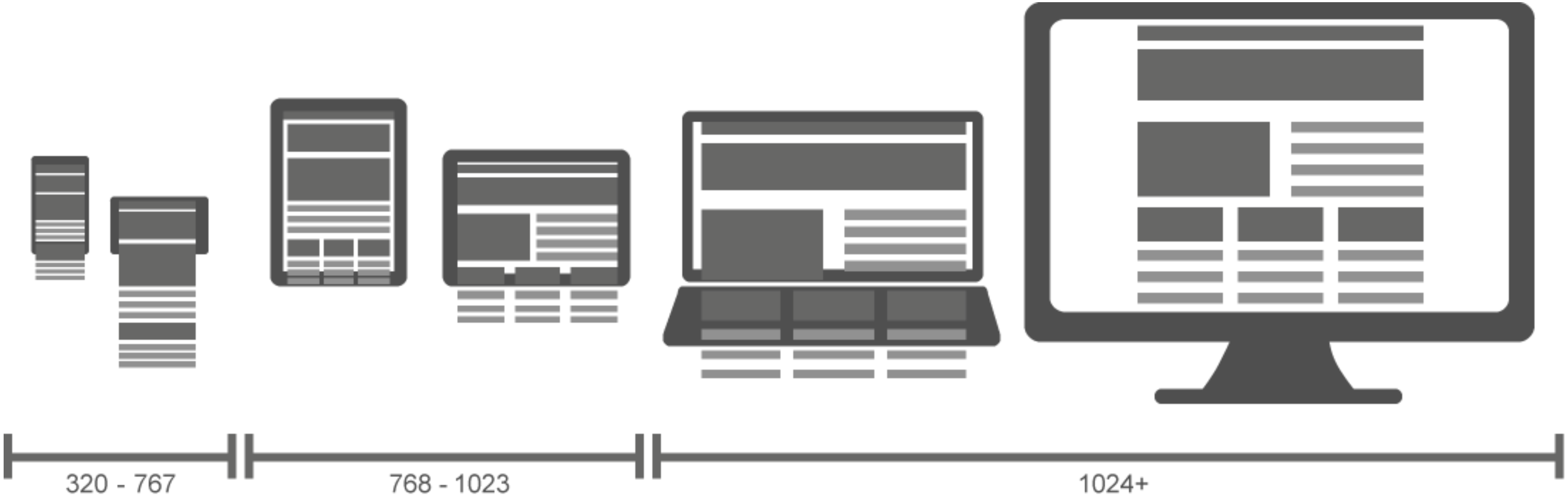
```css
/* On devices under 768px */
.col-left, .col-center, .col-right {
  width: 100%;
}

@media only screen and (min-width: 768px) {
  [class*="col-"] {
    width: calc(100%/3);
    float: left;
  }
}
```

CODE ALONG

RESPONSIVE LAYOUTS

MOBILE FIRST

MOBILE FIRST



Generally, we build for the smallest devices, then add media queries for common **breakpoints**.

WHY MOBILE FIRST?

It's simple:
They are **our primary devices for viewing web content** today.

MOBILE FIRST: BOOTSTRAP STYLE

```css
/* Extra small devices (portrait phones, less than 576px)
are the default (Mobile First) */

/* Small devices (landscape phones, 576px and up) */
@media (min-width: 576px) { ... }

/* Medium devices (tablets, 768px and up) */
@media (min-width: 768px) { ... }

/* Large devices (desktops, 992px and up) */
@media (min-width: 992px) { ... }

/* Extra large devices (large desktops, 1200px and up) */
@media (min-width: 1200px) { ... }
```

CODE ALONG

BUILDING A RESPONSIVE MENU

GO BUILD AWESOME THINGS!