

Comp I25 - Visual Information Processing

Spring Semester 2018 - week 9 - monday

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CSS Basics - intro

- CSS allows us to define stylistic characteristics for our HTML
 - *helps us define how our HTML is displayed and rendered*
 - *colours used, font sizes, borders, padding, margins, links...*
- CSS can be stored
 - *in external files*
 - *added to a `<style>` element in the `<head>`*
 - *or embedded as inline styles per element*
- CSS not intended as a replacement for encoding semantic and stylistic characteristics with elements

CSS Basics - stylesheet

- add a link to our CSS stylesheet in the <head> element

```
<link rel="stylesheet" href="style.css" />
```

- change will replicate throughout our site wherever the stylesheet is referenced

CSS Basics - <style> element

- embed the CSS directly within the <head> section of our HTML page
- embed using the <style> element
- then simply add standard CSS within this element
- limitations include lack of abstraction for site usage and maintenance
 - *styles limited to a single page...*

```
<style type="text/css">
body {
  color: #000;
}
</style>
```

CSS Basics - inline

- embed styles per element using **inline** styles
 - *limitations and detractors for this style of CSS*
 - *helped by the growth and popularity of React...*

e.g.

```
<!-- with styles -->
<p style="color:#cd0603">a trip to Luxor</p>
<!-- without styles -->
<p>a trip to Karnak</p>
```

CSS Basics - pros

Pros

- inherent option and ability to abstract styles from content
- isolating design styles and aesthetics from semantic markup and content
- cross-platform support offered for many aspects of CSS
 - *CSS allows us to style once, and apply in different browsers*
 - *a few caveats remain...*
- various CSS frameworks available
- support many different categories of device
 - *mobile, screen readers, print, TVs...*
- accessibility features

CSS Basics - cons

Cons

- still experience issues as designers with rendering quirks for certain styles
 - *border styles, wrapping, padding, margins...*
- everything is global
 - *CSS matches required selectors against the whole DOM*
 - *naming strategies can be awkward and difficult to maintain*
- CSS can become a mess very quickly
 - *we tend to add to CSS instead of deleting*
 - *can grow very large, very quickly...*

CSS Basics - intro to syntax

- simple, initial concepts for CSS syntax
- follows a defined syntax pattern, e.g.
- selector
 - e.g. *body* or *p*
- declaration
 - *property and value pairing*

```
body {  
  color: black;  
  font-family: "Times New Roman", Georgia, Serif;  
}
```

- `body` is the selector, `color` is the property, and `black` is the value.

CSS Basics - rulesets

- a CSS file is a group of rules for styling our HTML documents
- rules form **rulesets**, which can be applied to elements within the DOM
- rulesets consist of the following,
 - a selector - *p*
 - an opening brace - *{*
 - a set of rules - *color: blue*
 - a closing brace - *}*
- for example,

```
body {  
  width: 900px;  
  color: #444;  
  font-family: "Times New Roman", Georgia, Serif;  
}
```

- [HTML Colour Picker](#)

CSS Basics - comments

- add comments to help describe the selector and its properties,

```
/* 'color' can be set to a named value, HEX value (e.g. #444) &c. */  
p {  
  color: blue;  
  font-size: 14px;  
}
```

- comments can be added before the selector or within the braces

Image - CSS Syntax

Selector

```
|-----|  
|  p  |  
|-----|
```

Declaration

```
|-----|  
| { font-size: 14px; } |  
|-----|  
      ^           ^  
      |           |  
property       value
```

CSS Syntax

CSS Basics - display

- display HTML elements in one of two ways
 - inline - e.g. `<a>` or ``
 - displays content on the same line

```
<div class="content">
  <p>
    <a href="...">Philae</a> is a <span>Ptolemaic</span> era temple in Egypt.
  </p>
</div>
```

- more common to display elements as block-level instead of inline elements
- element's content rendered on a new line outside flow of content
- a few sample block elements include,
 - `<article>`, `<div>`, `<figure>`, `<main>`, `<nav>`, `<p>`, `<section>`...
- *block-level* is not technically defined for new elements in HTML5

Current inline elements include, for example:

- b | big | i | small
- abbr | acronym | cite | dfn | em | strong | var
- a | br | img | map | script | span | sub | sup
- button | input | label | select | textarea
- ...

Source - [MDN - Inline Elements](#)

n.b. not all inline elements supported in HTML5

Current block-level elements include:

- address | article | aside | blockquote | canvas | div
- fieldset | figure | figcaption | footer | form
- h1 | h2 | h3 | h4 | h5 | h6
- header | hgroup | hr | main | nav
- ol | output | p | pre | section | table | tfoot | ul | video
- ...

Source - [MDN - Block-level Elements](#)

n.b. *block-level* is not technically defined for new elements in HTML5

References

- [MDN](#)
- [CSS documentation](#)
- [W3Schools](#)
- [CSS](#)