

Distributed Software Development

CSS

Chris Brooks

Department of Computer Science
University of San Francisco

Department of Computer Science — University of San Francisco — p.27

- CSS stands for Cascading Style Sheets
- Provides a way to specify how related document elements should be displayed.
 - Makes design and maintenance easier
- Also gives us an opportunity to introduce some topics we'll revisit in other forms:
 - Documents as trees
 - Specifying paths to nodes in trees
 - Separating out the meaning of a tag from its use.

Department of Computer Science — University of San Francisco — p.27

3-1: Display and the Web

- HTML and the Web were initially developed at CERN in 1990.
- Goal - allow information to be shared across a wide variety of platforms and displays.
- HTML deliberately left out specific layout instructions
 - Particular rendering of a document was dependent on client's capabilities.
- Information could be displayed on a wide variety of devices, but there was little presentational control.

Department of Computer Science — University of San Francisco — p.27

3-2: Invasion of the Web Designers

- Early versions of Yahoo! look very different from today.
 - Single font, no table layout, background colors, menus, dynamic behavior, etc.
- Later versions of HTML added presentational elements.
 - Ability to specify fonts within paragraph elements, control color more easily, use tables for layout, etc.
- Problem: these new elements don't convey structural information about a document.

Department of Computer Science — University of San Francisco — p.27

3-3: Invasion of the Web Designers

- Previously:

- CSS is essentially a set of if-then rules that tell:
 - What parts of a document to match
 - How to format elements that match a rule.
- The *cascade* details how to deal with conflicts between rules.

- A simple rule to force all H1 elements to be large, red, sans-serif font would be:

- The fun of CSS comes in specifying how different elements should be rendered.
- You can control all the things you'd expect, plus some others.
 - Fonts: size, color, family, style
 - Text alignment: indentation, alignment, spacing, capitalization, underlining/shadowing.
 - Element alignment: margins and layout
 - Background colors, borders, images
 - List bullets, cursors
- The Meyer book and W3Schools do a nice job of enumerating all the options available.

- The *cascade* refers to the rules that are used to determine which rule should apply to an element.
- For example:

-