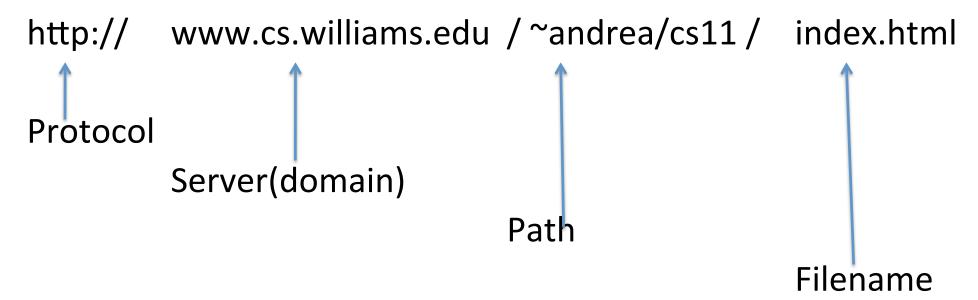
# Introduction to Web Programming

January 8, 2014

#### **URLs**



- If no filename is specified, a default is assumed.
- Can be index.html, default.htm, index.php, index.asp, depending on how the server is configured

# Hyperlinks

- Can specify an absolute path
- Can specify a relative path (relative to the current directory)
  - "../course.css"
- Can specify a named anchor in the current or another page.
  - <h1 id="topic1">Topic 1: HTML</h1> give an id
  - <a href="#topic1">HTML</a> link in this page
  - <a href="intro.html#topic1">HTML</a> link to
    another page

# Anchor elements, cont'd

Can be text or images

```
<a href="http://www.williams.edu">
  <img src="purpleCow.gif" alt="cow image"></a>
```

- Text anchor typical defaults:
  - Underlined blue before click
  - Purple after click

# Anchor elements, cont'd

 Can open a new window (or tab, depending on browser default)

```
<a href="http://www.cs.williams.edu"
target="_blank">CS at Williams</a>
```

Can reuse the window/tab if you give it a name

```
<a href="http://www.cs.williams.edu"
  target="CSWindow">CS at Williams</a>
```

 For advertising-style pop-up windows, need JavaScript

#### Mail and Phone Links

 Can make sending mail easy (though it leaves you open as a target for spam)

```
<a href="mailto:me@cs.williams.edu">email me</a>
```

Can do something similar for phone numbers

```
<a href="tel:+14135551234">Call 413-555-1234</a>
```

- Follow W3C HTML and CSS standards as much as possible.
  - Your primary tool for ensuring that your site is as consistent as possible on all standards-compliant browsers.
- Design with progressive enhancement as a guide.
  - Start with a baseline experience that makes your content/functionality available to even the most rudimentary browser.
  - Progressively add enhancements that are nice but not critical.

- Serve a single HTML document to all devices but apply different style sheets based on the screen size to provide the best layout for each device.
  - See links on Resources page.
- Keep accessibility in mind.
  - Consider vision, mobility, auditory, and cognitive impairment.

- Site performance is important.
  - Amazon.com showed that reducing page load times
     by just 100ms resulted in a 1% increase in revenue.
  - A few ways to optimize performance:
    - Make images the smallest size possible
    - Minimize html and css documents by removing extra spaces and line returns. (But still keep them readable.)
    - Keep JavaScript to a minimum
    - Don't load anything unnecessary
    - Check out code.google.com/speed

- Forcing new windows/tabs to open up is not a good idea for accessibility.
  - Too many windows/tabs can be confusing to anyone.
  - Can be confusing on small readers.
  - Use sparingly.

#### **Color Matters**

- Select a color scheme that makes sense for the product/service at the heart of your website.
  - If it's a skiing website, reds, oranges, and yellows aren't the best choice.
- Be sure you know your target audience.
- Overuse of bright colors causes eye fatigue.
- Choose a background color.
  - Distinguish your website from others.
  - "Punches" the body of the page forward.

# Color Matters, cont'd

- Don't make your website a rainbow.
  - Work with a palette of 2-3 colors.
- Make your text black.
  - People are used to reading black text.

#### Color Choice

#### Complementation

- Colors on "opposite" ends of the color spectrum lead people to consider a design visually appealing
- Good for general color scheme selection and highlighting, but not as much for text

#### Contrast

- Reduces eyestrain and focuses user attention
- Good for selecting text color and associated background (black on white/light gray; white on black)
- When in doubt, use a very light color for the background and a dark color for text

#### Color Choice

- Vibrancy
  - Vibrancy affects the emotional response to your design
  - Brighter colors: energetic
  - Darker, muted shades: relaxing
- Colors have both positive and negative associations
  - For example, Red
    - Positive: power, strength, action, energy
    - Negative: warning, danger, caution, anger
  - Blue
    - Positive: Cool, tranquil, secure
    - Negative: Cold, passive
  - White
    - Positive: Pure, fresh, clean
    - Negative: Cold