IT350 Web and Internet Programming
Fall 2008

XHTML vs. HTML
XHTML Validation

<table>
<thead>
<tr>
<th>Web Markup Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML 2.0</td>
</tr>
<tr>
<td>...</td>
</tr>
<tr>
<td>HTML 4.01</td>
</tr>
<tr>
<td>XHTML 1.0</td>
</tr>
<tr>
<td>XHTML 1.1</td>
</tr>
<tr>
<td>XHTML 2.0</td>
</tr>
</tbody>
</table>
XHTML: Differences from HTML (part 1)

- Documents must be “well-formed”
  1. All start tags must be closed
  2. All tags must properly nest
XHTML: Differences from HTML (part 2)

- Tag and attribute names must be lowercase

- Attribute values must be double-quoted

- Use `id` instead of `name`
  
  `<a name=bottom> Stuff </a>`

  `<a id="bottom"> Stuff </a>`

  `<h1 id="ships"> … </h1>`

XHTML: Differences from HTML (part 3)

- Many “style” tags/attributes removed

http://webdesign.about.com/od/htmlxhmtut/bltags_deprecat.htm

- What to do?
XHTML: Differences from HTML (part 4)

• Frames allowed in XHTML 1.0…
  But removed in XHTML 1.1

• A few more technical differences…
  – See http://www.w3.org/TR/2000/REC-xhtml1-20000126/#difs

Exercise #1 – Correct any invalid XHTML syntax

```xml
<?xml version = "1.0" encoding=utf-8 ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
 "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<!-- An example file
<!-- Our first Web page -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <body>
    <h1> Welcome to <b> IT350!  </b> </h1> </b>
    <h2> Today’s Agenda </h2>
    <li> XHTML
    <li> JavaScript
  </body>
</html>
```
Exercise #2 – Correct any invalid XHTML syntax

<?xml version = "1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
 "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns = "http://www.w3.org/1999/xhtml">
  <title>Internet and WWW How to Program - Welcome</title>
  <body>
    <img scr = "xmlhtp.jpg" height = "238" width = "183" >
    
    <h1 align="center">Under construction</h1>
  </body>
</html>

Exercise #3 – Correct any invalid XHTML syntax

<?xml version = "1.0"?>

<html xmlns = "http://www.w3.org/1999/xhtml">
  <head>
    <title>Internet and WWW How to Program - Links</title>
  </head>
  <body>
    <b> <h1>Here are my favorite links</h1> </b>
    <p><A href = "http://www.yahoo.com">Yahoo!</A></p>
    <p><A mailto = "webmaster@ussmichigan.org">Webmaster</A></p>
  </body>
</html>
Exercise #4 – Correct any invalid XHTML syntax

```xml
<?xml version = "1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>  
<title>Best features of the Internet</title>  
</head>

<body>

<ul>
<li>Meet new people from around the world.</li>
<li>Access to new media as it becomes public:</li>
<ul>
<li>New games</li>
<li>New applications & software</li>
</ul>
<li>Search engines</li>
</ul>

</body>
</html>
```

History of the World in Just 4 Slides, Part 1

- **ARPANET**
  - Implemented in late 1960’s by ARPA (Advanced Research Projects Agency of DOD)
  - Networked computer systems of a dozen universities and institutions with 56KB communications lines
  - Grandparent of today’s Internet
  - Intended to allow computers to be shared
  - Real benefit?
History of the World in Just 4 Slides, Part 2

• ARPA’s goals
  – Allow multiple users to send and receive info at same time
  – Use packet switching technique
    • Digital data sent in small packages called packets
    • Packets contained data, address info, error-control info and sequencing info
    • Greatly reduced transmission costs of dedicated communications lines
  – Operate without centralized control
    • If portion of network fails, remaining portions still able to route packets

• Huge variety of networking hardware and software appeared
  – Development of TCP/IP protocols enabled interoperation

History of the World in Just 4 Slides, Part 3

• Internet initially just for universities and research labs
  – Military became big user
  – Next, government decided to access Internet for commercial purposes

• Internet traffic grew
  – Businesses spent heavily to improve Internet
    • Better service their clients
  – Fierce competition among communications carriers and hardware and software suppliers
  – Result
    • Bandwidth (info carrying capacity) of Internet increased tremendously
    • Costs plummeted
History of the World in Just 4 Slides, Part 4

- **WWW**
  - Allows computer users to locate and view multimedia-based documents
  - Introduced in 1990 by Tim Berners-Lee

- **W3C** – [www.w3.org](http://www.w3.org)
  - Founded in 1994 by Tim Berners-Lee
  - Devoted to developing non-proprietary and interoperable technologies for the World Wide Web and making the Web universally accessible
  - Standardization
    - **W3C Recommendations**: technologies standardized by W3C
      - include Extensible HyperText Markup Language (XHTML), Cascading Style Sheets (CSS) and the Extensible Markup Language (XML)
    - Document must pass through Working Draft, Candidate Recommendation and Proposed Recommendation phases before considered for W3C Recommendation

History of the World in Just 4 Slides, Part 5

- **Web 2.0**
  - **Users** create the content
    - Facebook
    - Wikipedia
    - del.icio.us
    - Amazon – how?
  - **Tagging**

  - **Richer user interfaces**
    - Google Maps vs. original Mapquest
    - AJAX

  - And more… see IT452!