

HTML5

Thomas Barrasso
Harvard Extension CS76
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What is it?

"HTML5 is currently under development as the next major revision of the HTML standard."

"An emerging web content delivery platform in 2010. May replace technologies like Flash especially on mobile devices."

"The upcoming, powerful standard of Hypertext Markup Language, which has added advanced interactive features, such as allowing video to be embedded on a web page."

Heads Up

No longer do we have to type out something as long as this:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

Instead this is what we've got:

```
<!DOCTYPE html>
```

A character set declaration goes from this:

```
<meta http-equiv="content-type" content="text/html;
charset=utf-8"/>
```

to this: `<meta charset="utf-8">`

Local Storage

- New JavaScript APIs for storing data locally on the user's PC.
- Data stored in String key-value pairs.
- Supported in Firefox 3.5+, IE8+, Mobile Safari, etc.
- API includes setting, retrieval, and removal of data.
- A limit of 5MB is generally imposed on local storage.

Demo Time

`window.localStorage`

Audio & Video

- HTML5 Includes new audio and video tags.
- Support is based on codec, so be sure to include MP4, OGG Theora, and perhaps even a Flash fallback.
- If tags are not self-closing content inside is the fallback (self-closing tags do not contain text/ other tags).

```
<audio src="movie.ogg" autobuffer>  
  <p>Your browser does not support audio.</p>  
</audio>
```

```
<video width="1280" height="720"  
  src="movie.mp4" autobuffer>
```

Geolocation

- Ability to request access to the user's location.
- A popup/ alert box will be presented by the browser asking the user to confirm or deny.
- Retrieve latitude and longitude, or an error in the case that the user denies access or some technical difficulty occurs.

Demo Time

[navigator.geolocation](#)

CSS3

What is it?

- The latest standard of CSS (Cascading StyleSheets).
- Includes a number of new features, most notably animations, image/ color manipulation, fonts, borders, and shadows.
- MANY properties are supported using vendor-specific prefixes, i.e., -ms-, -moz-, -webkit-, -o-, etc.
- Modern browsers support *most* CSS3 features (Firefox, Chrome, Safari, IE9). See [QuirksMode](#) for a table. Great demos can be found on [CSS3.info](#).

Borders

- Multicolored borders, radii, image borders, and shadows.
- Makes tasks like having rounded corners MUCH simpler than in CSS 2.1, where there were 4 images, one for each corner.

```
#myID3 {  
    border-radius: 5px;  
    -moz-border-radius: 5px;  
    -webkit-border-radius: 5px;  
    /* ... */  
}
```

Color Schemes

- HSL, HSLA, RGBA, and opacity manipulation added!
- This makes it possible for the background color to be transparent with full-opacity text.
- Can be used in conjunction with animations to fade in/ out.

```
#myID4 {  
    background-color: rgba(200, 166, 17,  
0.5); /* 50% opaque */  
}
```

Text Manipulation

- Includes shadows, word wrapping, and ellipsis.
- Some features supported as far back as IE6!

```
#myID5 {  
    text-overflow: ellipsis;  
    text-shadow: 2px 2px 2px #FF0000;  
    /* red shadow, ellipsized ... */  
}
```

Transformations

- The `transform` property accepts a number of values for manipulating the scale, rotation, and position of elements.
- Scale uses a percentage, rotate either a radian (rad) or degree (deg) value, and translate two measurements (x, y).

```
#myID5 {  
    transform: rotate(45deg) scale(1.5)  
             translate(50px, 0);  
    /* 150% size rotated 45° and  
       shifted 50px right... */  
}
```

Animations

- Everything you need to know, plus examples, can be found on [Rich Bradshaw's](#) blog tutorials!
- Use `transition` property with a given duration, delay, easing method (should one be used), and property to animate.

```
#myID6 {  
    transition: color 1s ease-in-out;  
}
```

Demo Time

CSS3: Time to put it all into practice!

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