

HTML 5

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Some Background

- HTML vs XHTML
- CSS – web page styling
- JavaScript – web page interactivity
 - AJAX, jQuery, other libraries
- Java – applets
 - Requires JVM = slow, applet signing
- Flash – fancy animations, games
 - Requires plug-in = slow, buggy, crashes

What's Wrong with HTML 4?

- It was great when it came out ~10 years ago
- Push now for web applications and “the cloud”
- Problems
 - Poorly coded websites
 - Browser compatibility
 - Flash required for things like movies, file uploads

How Can We Fix It?

- ~~Never let Microsoft write another piece of software~~
- Strict rules for coding web pages (XHTML)
- 900 page specification including error handling
- Provide web designers with a rich set of tools

Some Roadblocks

- Security Issues (e.g. access to user file system)
- Backwards compatibility
- Lots and lots of cases for error handling
- Specification won't be complete until 2022!!
 - Browsers starting to implement features now though

Now to the Fun Stuff...

- Audio & Video
- Forms & File API
- Canvas Element
- Drag and Drop
- Other nice features

Audio & Video

- No more need for Flash!
- `<audio>` and `<video>` tags
- But wait, it gets ugly...
 - Apple and Microsoft want \$\$\$ for H.264 patents
 - Ogg (Theora video, Vorbis audio)
 - Google VP8
- Still sort of a mess...

Forms & File API

- Lots of new form controls
 - Date, Time, Month pickers
 - Spinners and Sliders
 - URL, telephone, email inputs
- autofocus, autocomplete, required, multiple, etc...
- File API for reading files on file system

Canvas Element

- 2D Graphics
- Drawing shapes, lines, text, fills
- Games, graphs, etc...
- <http://canvaspaint.org/>

Drag and Drop

- Drag items...
 - From the web page
 - From external applications
- Drop items...
 - On the web page
 - To external applications
- Lots of quirks still to be worked out...

Other Nice Features

- Geolocation
 - Locate and track the user, given permission
- Offline Access
 - Keep list of files for local cache
- Web Storage alternative to Cookies
 - Web Storage or Web SQL Databases
- Web Sockets
 - Persistent connections to server

Thanks!

- Here are my sources...
 - Some Wikipedia pages
 - Introducing HTML 5 by Bruce Lawson, Remy Sharp