# HTML5 – The Saga Continues By Michael "Spell" Spellacy

### What is HTML5?

HTML5 is a new version of HTML and XHTML. The HTML5 draft specification defines a single language that can be written in HTML and XML. It attempts to solve issues found in previous versions of HTML and addresses the needs of *Web Applications*, an area not adequately covered in previous versions of HTML.



Illustration by Kevin Cornell for A List Apart





### So what can we expect from HTML5?

#### **New Semantics**

New HTML tags will be available to help us better structure, organize and define our documents (Yay!).

Several new tags to be included are <article>, <aside>, <audio>, <canvas>, <command>, <datalist>, <details>, <figure>, <footer>, <header>, , <section> and <video>...to name a few.

#### **Local Storage**

Provides a way for web sites to store information on your computer and retrieve it later (Think of these as very large cookies.).

#### **Geolocation (Not technically a part of the spec)**

Pinpoints users location from Wi-Fi towers and GPS to enhance applications. For privacy reasons, the user will have to opt-in to this (iPhone users should already be familiar with this concept).





### So what can we expect from HTML5?

### **Offline Web Applications**

Use Gmail or other applications offline! Any changes you've made will be uploaded to the remote web server upon reconnecting to the web.

#### **Web Workers**

A standard way for browsers to run JavaScript in the background. With web workers, You can spawn multiple "threads" that all run at the same time (Yay!).

### **Error Handling**

This part of the specification will define browser behavior when evil, poorly written documents are encountered **(Yay!)**.





## So what can we expect from HTML5?

#### Web Forms 2.0

Web forms will be easier to create as we will no longer need to depend on JavaScript to create certain pieces of form functionality as they will now be native to the browser (Yay!).

**Example** (Will only work in Opera or Google Chrome)





### So what can we expect from HTML5?

#### Video and Audio

HTML5 seeks to cover all the bases when it comes to rich media presentation within web pages. The <video> and <audio> tags will allow us to embed multimedia with the greatest of ease (and without the need for Flash).

**Example** (Will only work in Opera or Google Chrome)





### So what can we expect from HTML5?

#### **Behold Canvas!**

HTML5 defines the <canvas> element as "a resolution-dependent bitmap canvas that can be used for rendering graphs, game graphics, or other visual images on the fly." A canvas is a rectangle in your page where you can use JavaScript to programmatically draw anything you want. HTML5 defines a set of functions ("the canvas API") for drawing shapes, defining paths, creating gradients, and applying transformations.



### So what can we expect from HTML5?

Grudge Match: HTML5 vs. Flash...Fight!

#### HTML5

http://mrdoob.com/lab/javascript/waveform/

http://mrdoob.com/lab/javascript/effects/branching/01 spite mrdoob/

http://mrdoob.com/lab/javascript/effects/fire/01/

http://mrdoob.com/lab/javascript/effects/zoomblur/03/

http://mrdoob.com/projects/chromeexperiments/google\_sphere/

http://mrdoob.com/projects/chromeexperiments/google gravity/

http://mrdoob.com/projects/chromeexperiments/depth of field/

http://9elements.com/io/projects/html5/canvas/

http://www.giuseppesicari.it/progetti/javascript-3d-model-viewer/

http://webdev.stephband.info/parallax\_demos.html

http://www.addyosmani.com/resources/canvasphoto/

#### Flash

http://mrdoob.com/lab/actionscript/pv3d/real materials/ring.html

http://mrdoob.com/lab/actionscript/pv3d/dof/05/

http://mrdoob.com/lab/actionscript/pv3d/dof/07/







