

# Building for Real Standards

**mozilla**

Today we'll talk about building to standards and what that means in a HTML5 world.



# Standards, what are they good for, huh?

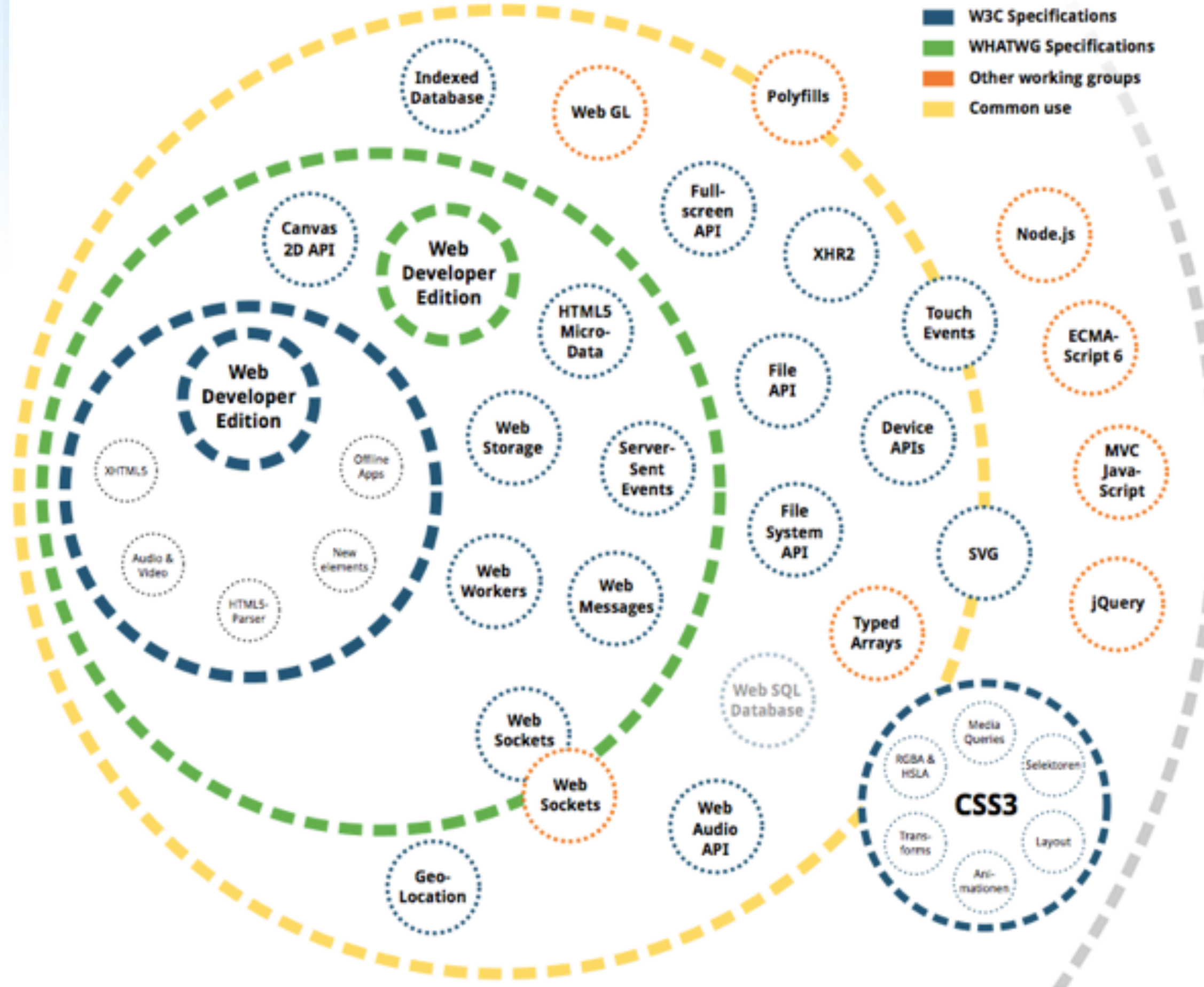
When the talk is about web development there can be a pushback from people claiming that standards are falling behind and there is no need for them. A standard is nothing that should hold you back, instead it should bring predictability to a certain trade or market. Imagine a world where screws weren't standardised the way they are - you'd need a different tool to assemble and disassemble any piece of furniture or machinery. As it stands, one type of screwdriver allows you to get very far and work with a massively diverse range of materials.

# It's complicated... **HTML**



**mozilla**

On the web this can get confusing as HTML5 is such a marketing term by now that it is hard to find a standard to apply.



mozilla

This problem is exacerbated by the amount of standards that are not HTML5 but always mentioned with it. This diagram shows just how confusing that can get. What people call HTML5 is not it in most of the cases and both the W3C and the WHATWG have “Web developer editions” of their proposals - meaning that a lot in the documentation is actually aimed at browser/parser makers rather than web developers.

**Everybody  
wants a piece  
of the action...**

**Desktop  
Laptop  
Mobile  
Tablet  
Fridge**

**...**

**mozilla**

When we talk about HTML5 we should also always remember that the web moved on. We don't just build for Desktop machines where we can expect a certain resolution, speed and connectivity. A large chunk of the HTML5 world means building solutions for mobile devices.



**Everybody  
has solutions  
to try out...**

**Microsoft  
Google  
Mozilla  
Opera  
Apple  
Adobe  
Facebook  
Twitter**

**...**

**mozilla**

A large part of the innovation around HTML5 happens not in the working group or the WHATWG but comes directly from browser vendors and software companies. All of these have vendor prefixes. This means that they can be great innovation that can lead to a standard, but for now they are experimental and can change whilst you apply them. Make sure to use them accordingly - with a fallback.





# Demo time:

# HTML5 basics

mozilla

Get the code examples on <https://github.com/codepo8/buildingforrealstandards>  
and check the README for how to show them

# Memo time:

-  **Use what is needed - don't  
TXTCODE**
-  **Safety goggles on!**
-  **Develop for the future**
-  **Build for the person who  
maintains your work.**

mozilla

You can find more instructions how we reached these conclusions in the README of the code examples.






# **Demo time:** **Client side thumbnails?**

**mozilla**

Get the code examples on  
<https://github.com/codepo8/buildingforrealstandards/canvasthumber> and check  
the README for how to show them

# Memo time:

-  **Browsers are powerful pieces of software**
-  **The client side rules!**
-  **Use what the client can do**

mozilla

You can find more instructions how we reached these conclusions in the README of the code examples.

# Safety in production?

mozilla

As you can see HTML5 is incredibly powerful but also in flux. What you are excited about today might not be available tomorrow. Therefore when you want to use HTML5 in production you need to add some safe-guards.

# When can I use...

[Suggestions](#)[Feed](#)[Twitter](#)

3.1k





255

[+1](#)[Flattr](#)

Compatibility tables for support of HTML5, CSS3, SVG and more in desktop and mobile browsers.

Latest update: [Two more features added: CSS filter effects and repeating gradients](#) (May 27, 2012)

Search:

[Index](#)[Tables](#)[Import stats](#)[FAQ](#)[Resources](#)[Embed](#)[Compatibility tables](#)[Browser comparison](#)[► Show options](#) = Supported = Not supported = Partially supported = Support unknown

## Show all tables

### # CSS Counters - Working Draft

Usage stats:

Global

Support: 88.46%

Method of controlling number values in generated content, using the counter-reset and counter-increment properties.

<a href="#">Show all versions</a>	IE	Firefox	Chrome	Safari	Opera	IOS Safari	Opera Mini	Opera Mobile	Android Browser
		3.6						10.0	2.1
	6.0	9.0				3.2		11.0	2.2
	7.0	10.0	17.0			4.0-4.1		11.1	2.3
	8.0	11.0	18.0	5.0		4.2-4.3		11.5	3.0
Current	9.0	12.0	19.0	5.1	11.6	5.0	5.0-6.0	12.0	4.0
Near future	10.0	13.0	20.0	5.2	12.0				
Farther future		14.0	21.0						

[Notes](#)[Known issues \(0\)](#)[Resources \(3\)](#)[Feedback](#)<http://caniuse.com/>

mozilla

Caniuse.com is a great resource to see how supported a certain HTML5 or CSS3 is in the browsers your users are likely to be on. Simple, constantly updated tables show you the current support in a very simple fashion.



“Modernizr is an essential part of my toolkit of files.”

— Andy Clarke, *Stuff & Nonsense*

## Download Modernizr 2.5.3

Use the commented, uncompressed Development version to develop with and learn from.

[View documentation](#)



**DEVELOPMENT**

Uncompressed, 42 Kb

Then, dive into the Production build tool and pick just the tests you need!



**PRODUCTION**

Configure Your Build

## Get started with Modernizr

While Modernizr gives you finer control over the experience through JavaScript-driven feature detection, it is important to continue to use best practices throughout your development process. Use progressive enhancement wherever you can, and don't sacrifice accessibility for convenience or performance.

- [Documentation: Getting started](#)
- [Taking Advantage of HTML5 and CSS3 with Modernizr](#), Faruk Ateş
- [How to use Modernizr](#), Inayaili de León
- [Modernizr: front-end development done right](#), Ryan Seddon
- [wiki] [The Undetectables: features that cannot be detected](#)
- [wiki] [Cross-browser Polyfills](#)

Also check out our [Resources section](#).

Tip: check out [Modernizr test suite](#) to quickly test your current browser's features.

**Modernizr** is an open-source JavaScript library that helps you build the next generation of HTML5 and CSS3-powered websites.

## Why use Modernizr?

Taking advantage of the new capabilities of HTML5 and CSS3 can mean sacrificing control over the experience in older browsers. Modernizr 2 is your starting point for making the best websites and applications that work exactly right no matter what browser or device your visitors use.

Thanks to the new Media Query tests and built-in [YepNope.js](#) micro-library as `Modernizr.load()`, you can now combine feature detection with media queries and conditional resource loading. That gives you the power and flexibility to optimize for every circumstance.

Check out the [full list of features](#) that Modernizr detects, or learn more about [conditional resource loading with Modernizr](#).

<http://modernizr.com/>

**HTML**

mozilla

Modernizr.com is a JavaScript library that makes feature detection easy. Instead of knowing all the ins and outs of testing if the current setup supports @font-face for example all you know is call the appropriate Modernizr function and you get a Boolean back. Modernizr is used and supported by a lot of large web sites.

# HTML5 PLEASE

Use the new and shiny responsibly.

Look up HTML5, CSS3, etc features, know if they are ready for use, and if so find out how you should use them – with polyfills, fallbacks or as they are. [tell me more](#) ►

Explore  
features

supported by [IE10+](#) • [IE9+](#) • [IE8+](#) • [IE7+](#) • [no IE](#)

not supported by [mobile devices](#) • [older mobile devices](#)

requiring [prefixes](#) • [polyfill](#) • [fallback](#)

that you should [use](#) • [use with caution](#) • [avoid](#)

that are [css](#) • [html](#) • [api](#) • [js](#)

[all features](#)

css



[animations](#)

**caution** with fallback

html



[<audio>](#)

**use** with polyfill

css



[background-image options](#)

**use** with fallback

css



[border-image](#)

**use** with fallback

css



[border-radius](#)

**use**

<http://html5please.com/>

mozilla

HTML5please.com is a web site powered by caniuse.com which shows you how safe it is to use a certain new technology and gives you fallback examples and polyfill solutions to bring missing functionality to legacy browsers.



# HTML5 ★ BOILERPLATE

A rock-solid default for HTML5 awesome.

► I'm new here: plz explain why it's good, first.

DOWNLOAD BOILERPLATE 3.0.2 UPDATED FEB 19TH

DOWNLOAD  
BOILERPLATE

KEEP THE HINTS AND LINKS

OR

DOWNLOAD  
BOILERPLATE "STRIPPED"

NO COMMENTS, JUST THE BIZNISS.

OR

CUSTOMIZE  
BOILERPLATE

100% HIPSTER.

[READ THE DOCS](#) ★

[CONTRIBUTE ON GITHUB](#) ★

[FOLLOW ON TWITTER](#)

## HTML5 BOILERPLATE IS 3.0!

MONDAY, FEB 6TH, 2012

The key feature of this update is making Boilerplate smaller. Most of the changes have been working towards that. We have significant work done to our build script, so much so that we thought it **deserved its own repository**. Meanwhile, here is what's new.

## CHANGELOG

3.0 gets some major updates **Here are all the commits since last release.**

Should you upgrade existing sites? Short answer: nah, you're good.

<http://html5boilerplate.com/>

### SIGNIFICANT CHANGES

HTML5boilerplate.com is a great starting point for your next HTML5 project. Simply download the zip of the boilerplate, unpack it and edit the index.html. Boilerplate includes a lot of fixes for legacy browsers to make your product work across the board.

mozilla

# Do you want to know more?

**mozilla**

If you want to know more about all of this, don't wait for the right book to be sold or training to come to your town. Up-to-date information is available for free on the web, and - even more importantly - we need your input!





MOZILLA DEVELOPER NETWORK

TOPICS ▾DOCS ▾DEMOS **LEARNING** COMMUNITY ▾

powered by Google

Search MDN

Sign in

mozilla ▾



# HTML5 & FRIENDS



**HTML5** is the set of technology standards that support the next phase in the development of the Web. From its beginning, Mozilla has championed Web standards to ensure freedom of choice for those who use the Web and independence for those who build it. Leaders from Mozilla helped start the evolution of HTML and related standards that is now known as HTML5, and Mozilla continues to lead in both defining and implementing these standards.

The term “HTML5” has been applied to many things, creating confusion about exactly what it is and what it can do. Rather than split hairs, we use “& friends” to encompass all the “new, exciting Web technologies” that will enable the next wave of Web-based innovation.

MDN DOCS

Community docs of HTML5 features and related technologies

- HTML
- HTML5
- CSS
- HTML5 Audio and Video
- Canvas
- WebSockets

DEMOS

See examples of the awesomeness you can achieve with HTML5 & friends

HTML5 Audio Read-Along Demo

[Read the background and instructions for this demo.]

Luke 2:1-20 (ESV)

[Audio player interface]





<https://developer.mozilla.org/en-US/learn/html5>

mozilla

At <https://developer.mozilla.org/en-US/learn/html5> the Mozilla Developer Network collects a lot of information on “HTML5 and friends” (related technologies like CSS, Web Storage and the like). This documentation is written both by Mozilla experts and Google guest authors and the best about it is that it is a Wiki - so if you have something to add or you find a mistake, just edit it and we'll review it for you.

Featured Article

## HTML5 adaptive images: end of round one

May 16th, 2012 by *Bruce Lawson*.

After The Great Vendor Prefix Hullabaloo of April 2012 comes The Great Responsive Images Brouhaha of May 2012. We look at the main competing formats for adding adaptive images to HTML – the `<picture>` element, and the `<img srcset="">` attribute.

[Read full post](#)

RECENT COMMENTS

Jemmy on [Avoiding common HTML5 mistakes](#)

---

Pete Signell on [The output element](#)

---

Pete Signell on [The output element](#)

---

Youri on [HTML5 and Search Engine Optimisation \(SEO\)](#)

---

mark on [Quoting and citing with <blockquote>, <q>, <cite>, and the cite attribute](#)

### HTML5 Element Index

Head	Sections	Grouping	Tables	Forms	Forms 2	Embedded	Text-level	Text-level 2
<a href="#">doctype</a>	<a href="#">body</a>	<a href="#">p</a>	<a href="#">table</a>	<a href="#">form</a>	<a href="#">keygen</a>	<a href="#">img</a>	<a href="#">a</a>	<a href="#">time</a>
<a href="#">html</a>	<a href="#">article</a>	<a href="#">hr</a>	<a href="#">caption</a>	<a href="#">fieldset</a>	<a href="#">output</a>	<a href="#">iframe</a>	<a href="#">em</a>	<a href="#">code</a>
<a href="#">head</a>	<a href="#">nav</a>	<a href="#">pre</a>	<a href="#">thead</a>	<a href="#">legend</a>	<a href="#">progress</a>	<a href="#">embed</a>	<a href="#">strong</a>	<a href="#">kbd</a>
<a href="#">title</a>	<a href="#">aside</a>	<a href="#">blockquote</a>	<a href="#">tbody</a>	<a href="#">label</a>	<a href="#">meter</a>	<a href="#">object</a>	<a href="#">i, b</a>	<a href="#">samp</a>
<a href="#">base</a>	<a href="#">section</a>	<a href="#">ol</a>	<a href="#">tfoot</a>	<a href="#">input</a>	<a href="#">Interactive</a>	<a href="#">param</a>	<a href="#">u</a>	<a href="#">var</a>
<a href="#">link</a>	<a href="#">header</a>	<a href="#">ul</a>	<a href="#">tr</a>	<a href="#">button</a>		<a href="#">video</a>	<a href="#">s</a>	<a href="#">mark</a>
<a href="#">meta</a>	<a href="#">footer</a>	<a href="#">li</a>	<a href="#">th</a>	<a href="#">select</a>	<a href="#">details</a>	<a href="#">audio</a>	<a href="#">small</a>	<a href="#">bdi</a>
<a href="#">style</a>	<a href="#">h1-h6</a>	<a href="#">dl, dt, dd</a>	<a href="#">td</a>	<a href="#">datalist</a>	<a href="#">summary</a>	<a href="#">source</a>	<a href="#">abbr</a>	<a href="#">bdo</a>
<a href="#">script</a>	<a href="#">hgroup</a>	<a href="#">figure</a>	<a href="#">col</a>	<a href="#">optgroup</a>	<a href="#">command</a>	<a href="#">canvas</a>	<a href="#">q</a>	<a href="#">ruby, rt, rp</a>
<a href="#">noscript</a>	<a href="#">address</a>	<a href="#">figcaption</a>	<a href="#">caption, p</a>	<a href="#">p, hgroup</a>	<a href="#">menu</a>	<a href="#">track</a>	<a href="#">cite</a>	<a href="#">span</a>
				<a href="#">div, main</a>	<a href="#">Edit</a>	<a href="#">map</a>	<a href="#">dfn</a>	<a href="#">br</a>
				<a href="#">del, ins</a>		<a href="#">area</a>	<a href="#">sub, sup</a>	<a href="#">wbr</a>

<http://html5doctor.com>




HTML5doctor.com is a blog dedicated to explaining one HTML5 feature at a time including all the issues with them and how to use them.



# HTML 5 Demos and Examples

HTML 5 experimentation and demos I've hacked together. Click on the browser support icon or the technology tag to filter the demos (the filter is an OR filter).



**Introducing HTML5** by Bruce Lawson & Remy Sharp is the first full length book dedicated to HTML5.

Get it now and kick some HTML5 ass!

**Filter demos:**

canvas

classList

contenteditable

dataset

dnd

events

file-api

file

geolocation

getUserMedia

hidden

history

manifest

offline

postMessage

sql-database























































storage

video

websocket

workers

xhr2

Demo	Support	Technology
<a href="#">Stream video and filter with canvas</a>	     	<div>getUserMedia</div> <div>canvas</div>
<a href="#">Stream video to the browser</a> <small>Also works on Opera Mobile 12</small>	     	<div>getUserMedia</div>
<a href="#">Drag and drop and XHR upload</a>	     	<div>file</div> <div>dnd</div> <div>xhr2</div>
<a href="#">Hidden property</a>	     	<div>hidden</div>
<a href="#">Simple class manipulation</a>	     	<div>classList</div>
<a href="#">Storage events</a>	     	<div>storage</div>
<a href="#">dataset (data-* attributes)</a>	     	<div>dataset</div>
<a href="#">History API using pushState</a>	     	<div>history</div>
<a href="#">Browser based file reading</a> <small>Not part of HTML5</small>	     	<div>file-api</div>

<http://html5demos.com/>

mozilla

HTML5demos.com is a showcase of HTML5 demos started by Remy Sharp, co-author of “Introducing HTML5” - a great book to get you started with the subject matter. These demos both show the basics and the bleeding edge of HTML with a legend on which browsers are supported in them.

# Last words (not famous).

**mozilla**

All in all it is important to understand that HTML5 is an evolution in the making. It is a living and changing standard and works very closely with other technologies. Therefore it is important to keep your eyes open and help us make it happen by filing browser bugs and comment on what we do.





# Move the Web Forward

**You can make the web as awesome as you want it to be.**

---

**You love web standards. You want to give back to the community.  
Curious about where to start? We're here to help.**

---

**<http://movethewebforward.org/>**

Whether you're a talented web developer, web-slinging since the days of tables and font tags, or you're a hobbyist hacker, there's always a way to the platform, whether that's learning more about how it works, teaching others, or writing specs. The web has grown due to the contributions of many people, and movethewebforward.org is a great site explaining how you can give back to the community that formed around web standards and how you can be part of a brighter future for web developers and users of web technology - on the web and in apps. Thank you!