

# New Stuff in Web Standards

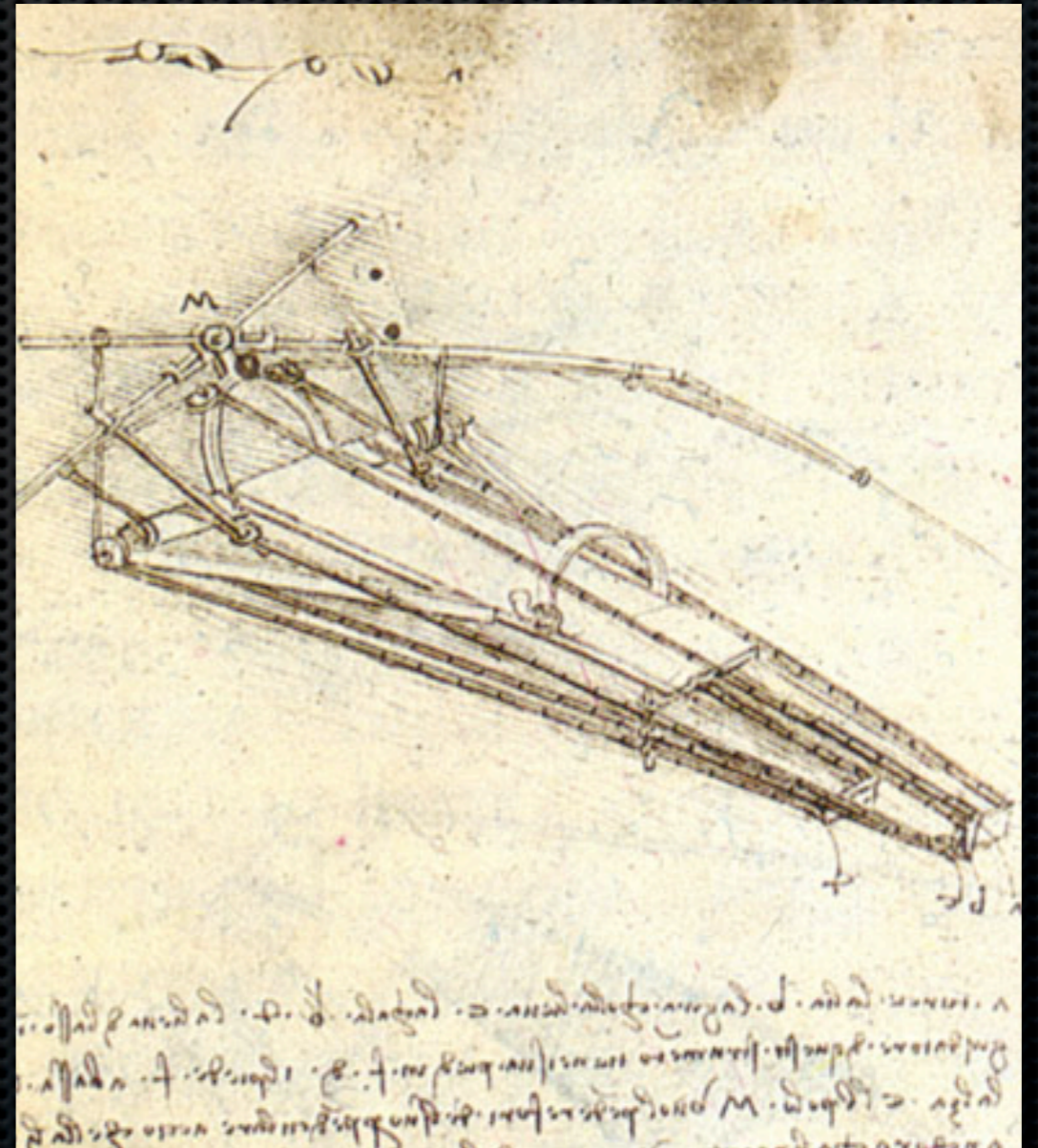
Lachlan Hunt

Web Standards Group, Sydney 2008-10-07

# Design Principles

# Design Principle Categories

- ✦ Compatibility
- ✦ Utility
- ✦ Interoperability
- ✦ Universal Access



# Support Existing Content

- Browsers must remain compatible with existing content



# Degrade Gracefully

- ✦ Making new features work in, or at least not break, older browsers



# Don't Reinvent the Wheel

- ✦ If it exists, don't reinvent it
- ✦ Fix what we already have



# Pave the Cowpaths

- ✦ Consider Use Cases
- ✦ Look at what authors already do and improve where necessary



# Evolution, Not Revolution

- ✦ Make incremental improvements
- ✦ Can't discard existing content and start fresh





# Solve Real Problems

- ✦ Ensure our work is relevant to web developers
- ✦ Identify problems first, then find solutions



# Priority of Constituencies

- ✦ Prioritise the needs of
  - ✦ Users
  - ✦ Authors
  - ✦ Implementers
  - ✦ Spec writers
  - ✦ Theoretical purity



# Secure By Design

- ✦ Protect end users from malicious intent



# Separation of Concerns

- ✦ Separate Presentation, Structure and Semantics where doing so provides real benefits



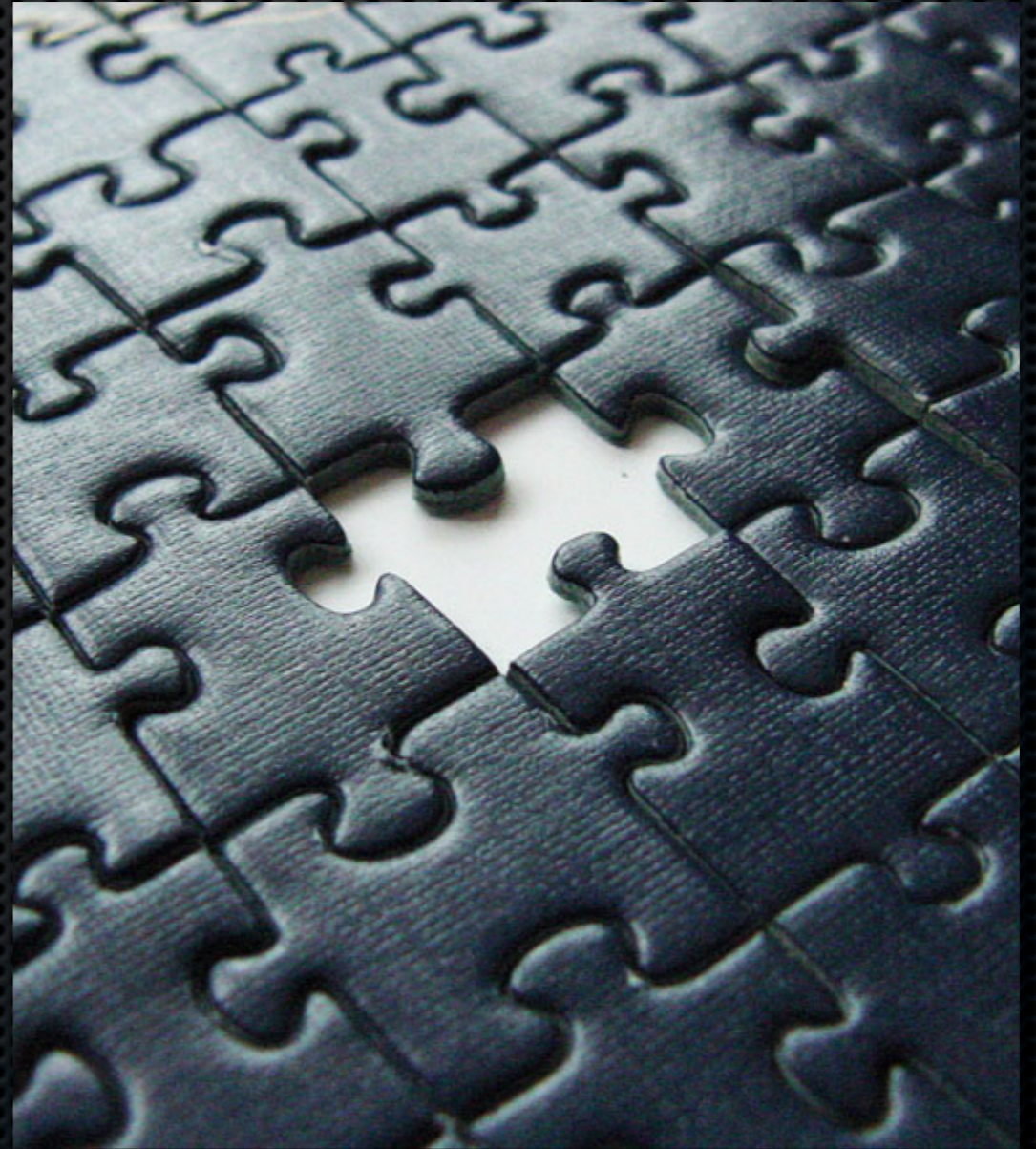
# DOM Consistency

- ✦ Minimise differences between HTML and XHTML
- ✦ Allow scripts to work consistently with both, where possible



# Avoid Needless Complexity

- ✦ Prefer simple solutions over complex ones
- ✦ Easier to implement



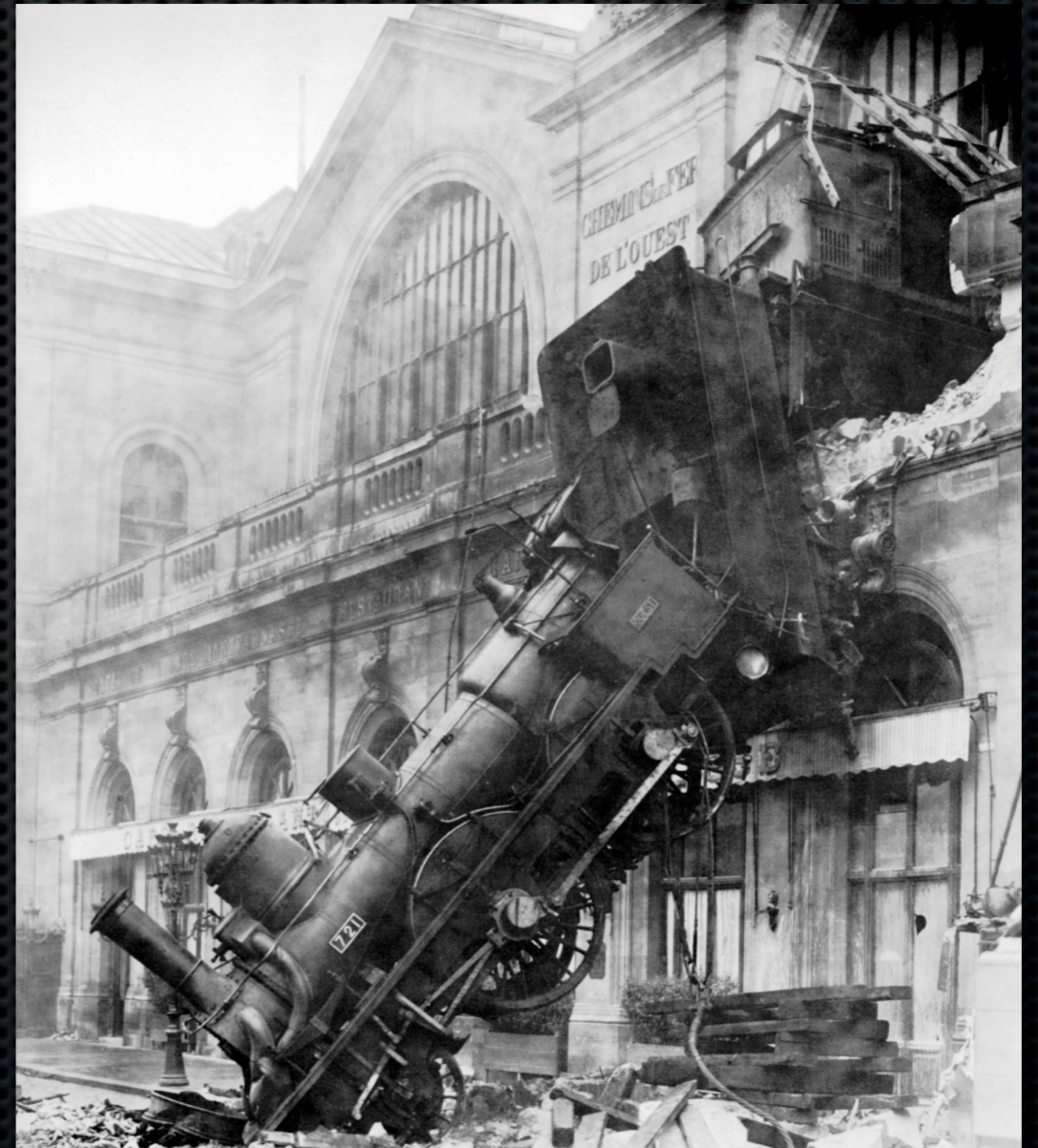
# Well-Defined Behaviour

- ✦ Define precisely what browsers must do with all possible input



# Handle Errors

- ✦ Authors make mistakes that browsers have to deal with
- ✦ The spec must define how





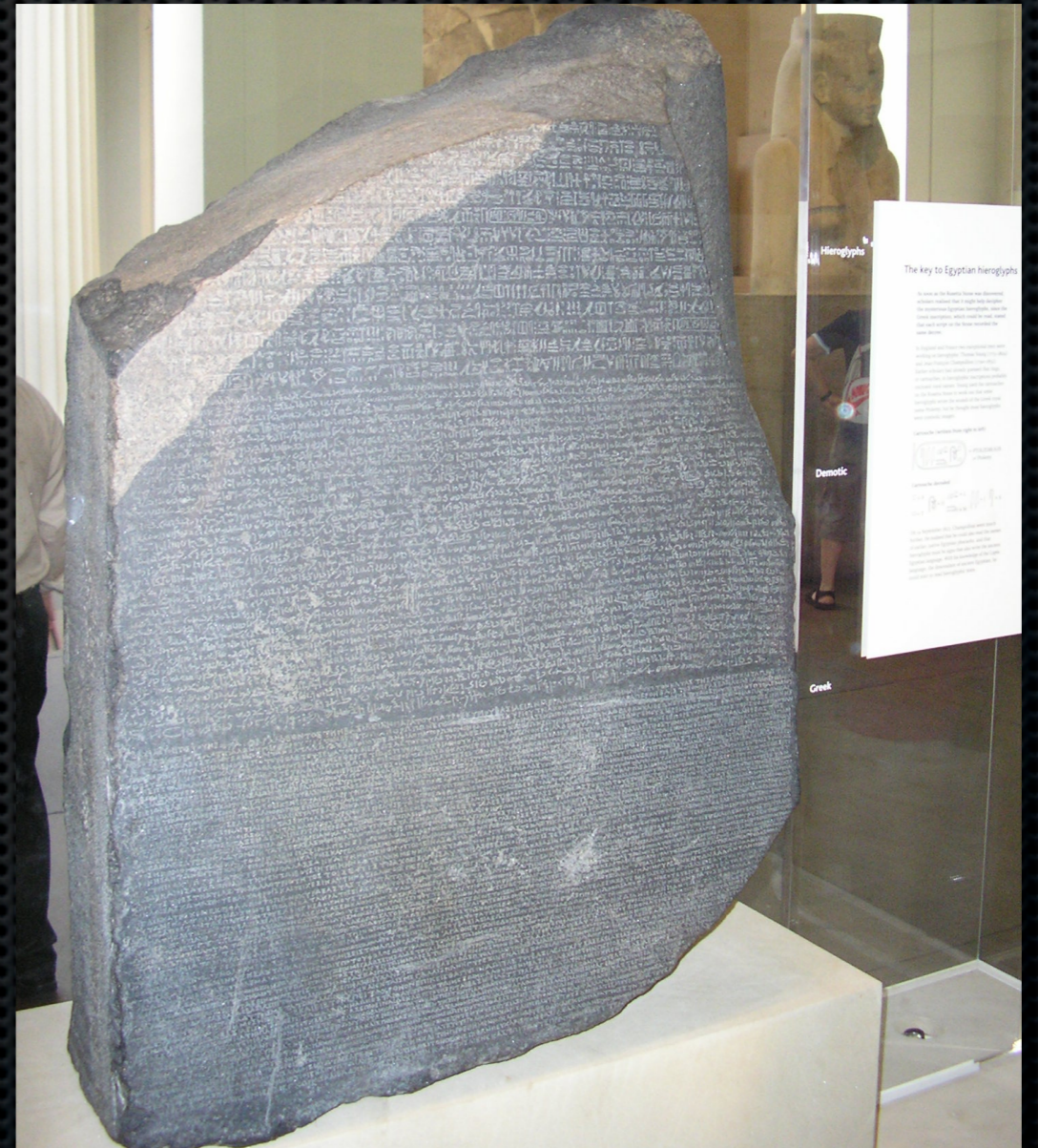
# Media Independence

- ✦ Support different:
  - ✦ Media
  - ✦ Devices
  - ✦ Platforms



# Support World Languages

- ✦ Support pages in any language
- ✦ Include features for Internationalisation



# Accessibility

- ✦ Provide for the needs of users with disabilities
- ✦ Built-in preferred over add-on accessibility, where possible



What's new in HTML?

# New Structure and Semantics

## Italics Kitten

Posted 29 May 2008



Hungry kittens

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Posted 29 May 2008



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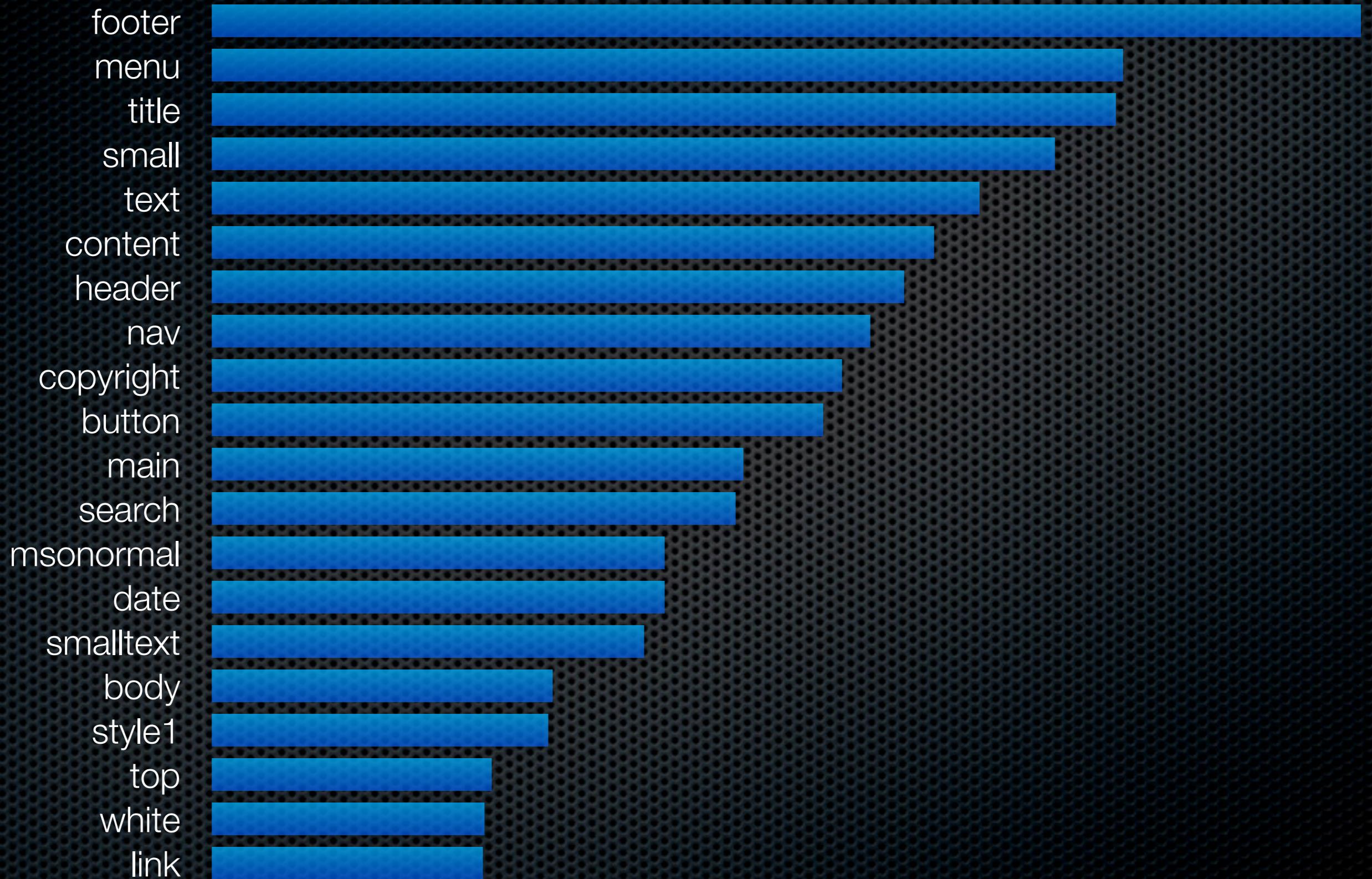
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## Top 20 Class Names





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Posted 29 May 2008



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# Whack A LOL

Posted 29 May 2008 <time>

<figure>



whack a lol

<legend>

I gotz me a hi score!

<meter>

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# Customer Service <h1>

<section>

Rapidiously e-enable compelling customer service whereas progressive catalysts for change. Globally formulate cross-unit best practices for client-focused intellectual capital. Objectively target optimal total linkage with plug-and-play expertise.

Quickly reinvent long-term high-impact strategic theme areas via out-of-the-box paradigms. Dynamically leverage existing compelling innovation for focused architectures. Enthusiastically myocardinate magnetic internal or "organic" sources after enabled schemas.

# Development Strategies <h1>

Authoritatively exploit extensible e-tailers and just in time benefits. Competently communicate unique markets through backward-compatible channels. Synergistically strategize interactive action items for exceptional architectures.

Conveniently leverage other's extensible strategic theme areas for superior vortals. Synergistically iterate intuitive channels and frictionless data. Efficiently transition functionalized interfaces and corporate mindshare.

# Investments in Infrastructure <h1>

Distinctively transform clicks-and-mortar paradigms whereas ubiquitous infrastructures. Distinctively grow quality meta-services whereas sustainable architectures. Interactively initiate bricks-and-clicks ideas after installed base ROI.

Dynamically engage optimal quality vectors before bricks-and-clicks vortals. Energistically disseminate innovative methods of empowerment with fully tested e-tailers. Synergistically extend plug-and-play platforms rather than professional web services.

# Element Implementations

- ✦ No native support, but can be styled with CSS in
  - ✦ Opera
  - ✦ Firefox 3.0
  - ✦ Safari
  - ✦ IE 6 and 7 using simple `createElement()` hack

New Multimedia

# Video

- ✦ Native video support in browsers
- ✦ DOM APIs for providing custom interfaces
- ✦ No more dependence upon Flash



# Video Implementations

- ✦ Opera (Experimental, Ogg Theora)
- ✦ Safari 3.1 (All QuickTime formats)
- ✦ Firefox 3.1 alpha 2 (Ogg Theora)



# Canvas

- ✦ Dynamically draw graphics and text
- ✦ Graphics-oriented DOM APIs





# Canvas Implementations

- ✦ Opera
- ✦ Firefox
- ✦ Safari
- ✦ IE 6+ using ExplorerCanvas script



What's new in CSS?

# Transforms

- ✦ scale
- ✦ rotate
- ✦ translate
- ✦ skew

# Transform Implementations

- ✦ WebKit Nightlies
- ✦ Gecko Nightlies

# Animations

- ✦ Proposal from Apple
- ✦ transition-property
- ✦ transition-duration
- ✦ transition-timing-function

# Animation Implementations

- ✦ WebKit Nightlies

What's new in DOM?

New APIs



# Selectors API

- ✦ Document and Element Interfaces
- ✦ `querySelector()`
- ✦ `querySelectorAll()`

# Selectors API Implementations

- ✦ Opera 9.6 beta
- ✦ WebKit nightlies
- ✦ Firefox 3.1 alpha 2
- ✦ IE 8

getElementByClassName()

# getElementsByClassName() Implementations

- ✦ Opera 9.5
- ✦ Firefox 3.0
- ✦ Safari 3.1

# Offline Web Applications

- ✦ Offline caching APIs
- ✦ Local storage
- ✦ SQL database

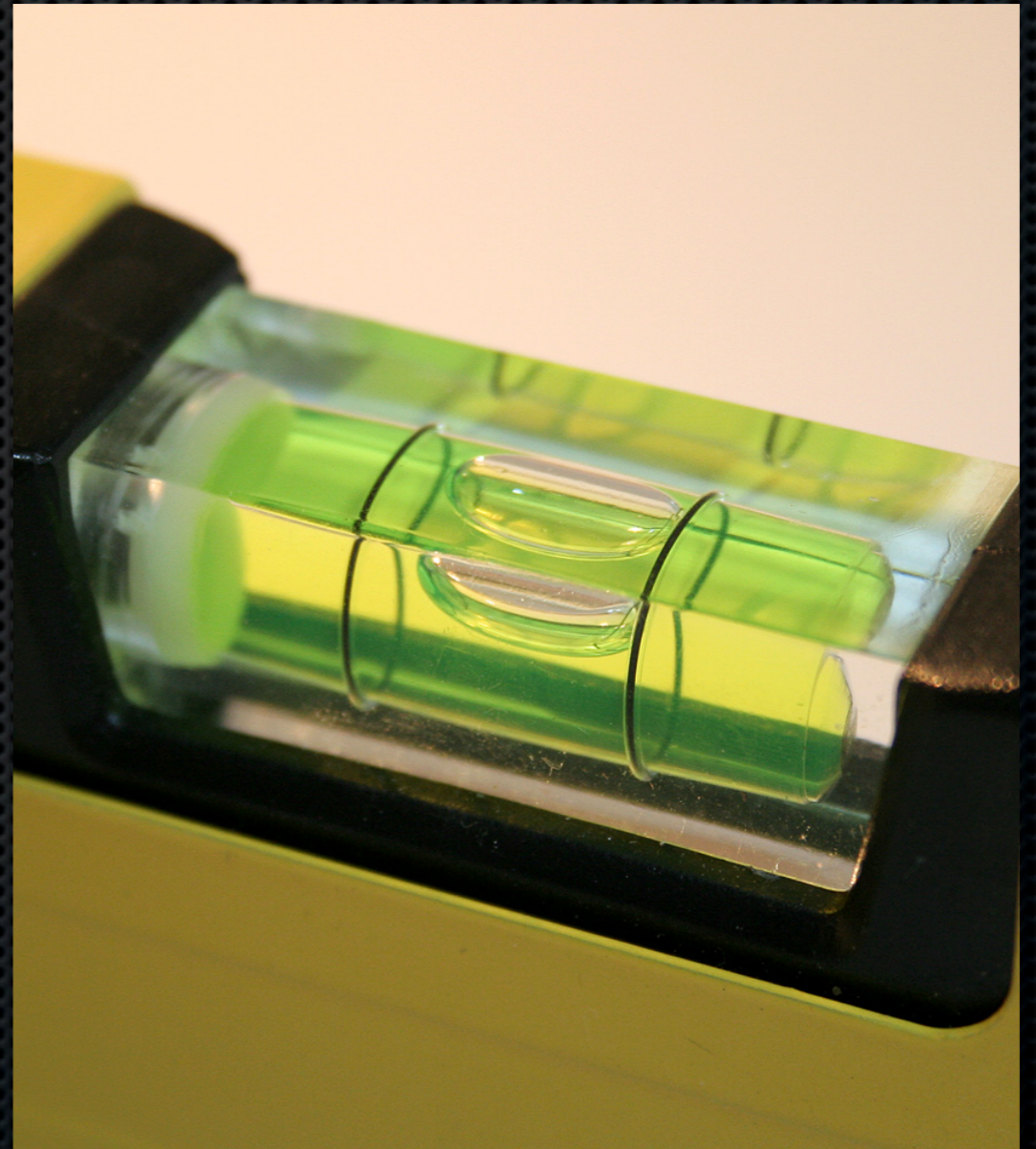




# Developer Tools

# Validator.nu

- ✦ HTML5 Conformance Checker
- ✦ Exceeds the capabilities of traditional DTD based validation







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