

HTML

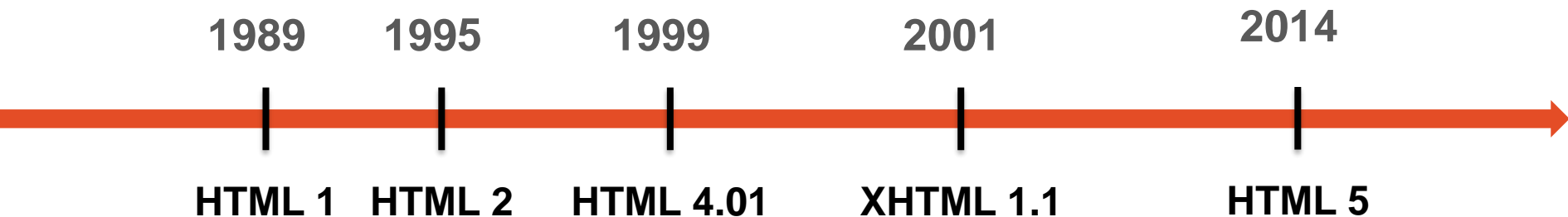
I've seen the
FUTURE
It's in my
BROWSER



{ coding_
academy

What is it?

HTML5 is a **markup language** used for structuring and presenting content on the World Wide Web.

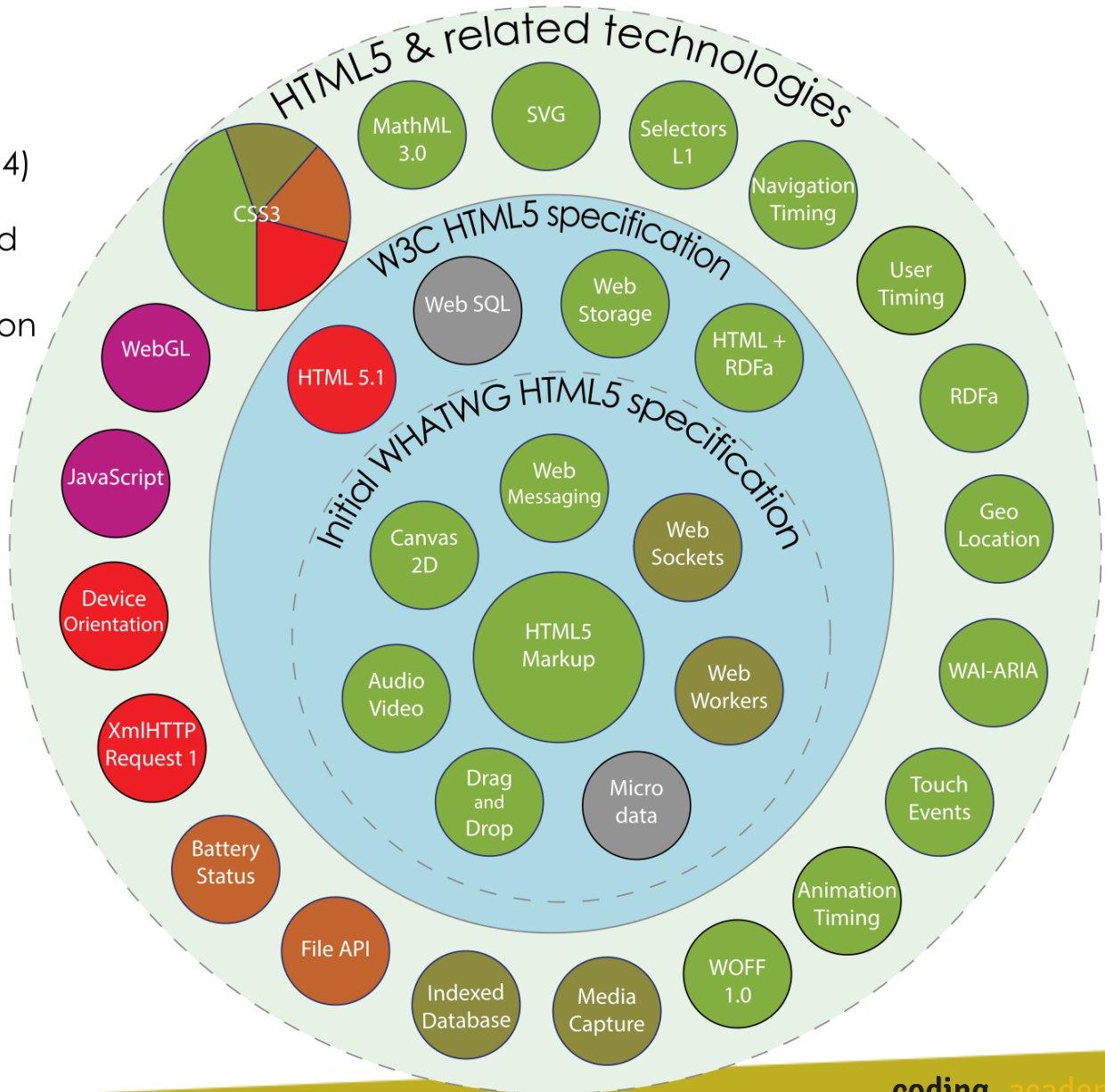


The Process of approving features by all browser vendors

HTML5

Taxonomy & Status (October 2014)

-  Recommendation/Proposed
-  Candidate Recommendation
-  Last Call
-  Working Draft
-  Non-W3C Specifications
-  Deprecated or inactive



Can I Use?

Sometimes we should validate that the feature we are using is widely supported, useful tool is [can-i-use](#)

Data URIs - OTHER

Method of embedding images and other files in webpages as a string of text, generally using base64 encoding.

Usage	% of all users	?
Global	98.83% + 0.89% =	99.72%

[illegible]

Web Storage

localStorage & sessionStorage

- Store string typed key-value pairs on client side
- ~5MB per domain (4KB per cookie)
- sessionStorage: short-term, tab (window)
- localStorage: long-term, browser
- Doesn't work in private-mode
- Don't use for sensitive data store!



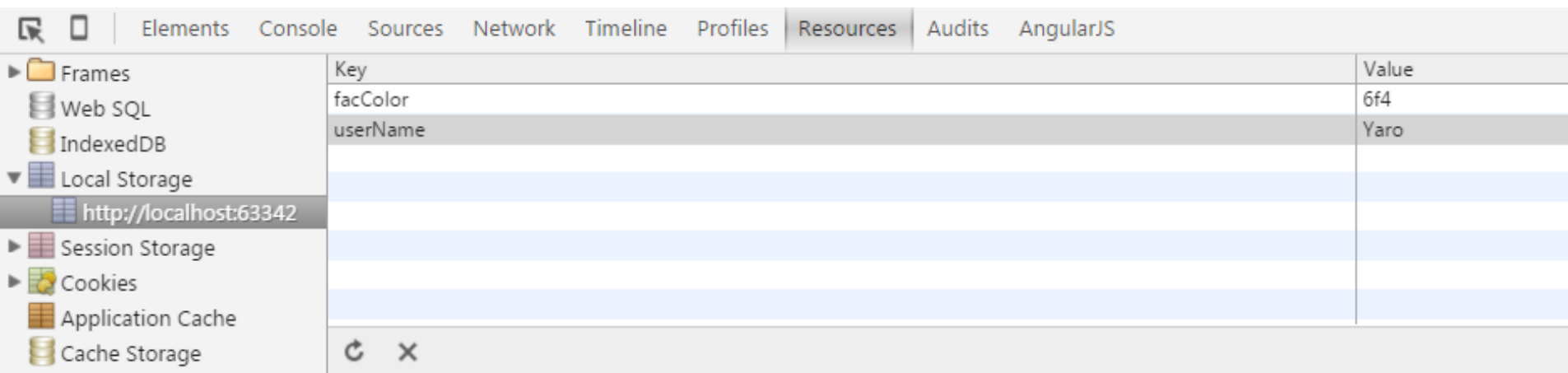
```
localStorage.setItem("favColor", favColor);  
localStorage.favColor = favColor;
```

```
var favColor = localStorage.getItem("favColor");  
var favColor = localStorage.favColor;
```

Web Storage

Tips

- use `JSON.parse()` / `.stringify()` for anything (e.g. booleans)
- Use browsers debugging tools



Semantic Elements

- `<section>` - a section in a document
- `<article>` - independent, self-contained content
- `<nav>` - a section with navigation links
- `<main>` - the main content
- `<aside>` - content aside from the content it is placed in
- `<header>` - container for introductory content
- `<footer>` - defines a footer for a document or section
- `<time>` - a human-readable date/time

Video & Audio

- Built in video/audio support
 - Codecs and fallbacks

```
<video width="600" height="400" controls autoplay loop onclick="toggleVideo();">
  <source src="video/big_vid.mp4" media="(min-device-width: 1024px)" />
  <source src="video/small_vid.mp4" media="(max-device-width: 600px)" />
  <source src="video/normal_vid.mp4" />

  <source src="video/vid.ogv" />
  <source src="video/vid.webm" />
  <object type="application/x-shockwave-flash" width="600" height="400">
    <param name="movie" value="http://vimeo.com/moogaloop.swf?clip_id=1084537" />
  </object>
</video>
```


Video & Audio

JS API, such as:

Method	Description
<u>load()</u>	Re-loads the audio/video element
<u>play()</u>	Starts playing the audio/video
<u>pause()</u>	Pauses the currently playing audio/video
<u>volume</u>	Sets or returns the volume of the audio/video

Content Editable

- Turns an element into an editable area
- Can be applied to almost any element
- Can be applied even to <style> element
- Save / undo changes can be done by JavaScript

```
<p contenteditable>  
  Some Content to Edit  
</p>
```

- Yes, [its powerful](#)

Form Elements and Attributes

Input types

- **tel** – phone numbers
- **search** – search bars
- **email** – email addresses
- **range** – range of numbers
- **color** – color picker
- **date** – picker (datetime TZ, date-local, week, time, month)
- **time** – time picker
- **file** – upload **multiple** files
- **url** - links



Form Elements and Attributes

Attributes

- **placeholder** – sets place holder string for input elements
- **data-*** – custom element attributes
- **autofocus** – focus control during page load
- **autocomplete (on / off)** – stores input for future use
- **multiple** – allows multiple values in file / email inputs
- **list** – offers predefined values but accepts free text
- **form** – allows placing an input **outside** the form

Form Elements and Attributes

Validations

- **required** – valueMissing
 - **type** – typeMismatch
 - **pattern** – patternMismatch
 - **maxLength** – tooLong
 - **min** – rangeUnderflow
 - **max** – rangeOverflow
 - **step** – stepMismatch
 - **setCustomValidity(message)** – customError
-
- Appearance can also be modified - (:invalid, :required)
 - Turning form validation off
 - **novalidate** form attribute, Empty value **formonvalidate** submit button attribute

Geo Location

```
navigator.geolocation.getCurrentPosition(showLocation, handleLocationError);
```



Geo Location

- **IP based:** old-fashion, inaccurate & unreliable but always available
- **GPS:** Very accurate but is only available on open spaces
- **Wi-Fi based:** Very accurate and available even in buildings but requires several Wi-Fi spots
- **Cellphone:** Location is set by its distance from cellular antennas



Summary

- HTML5 gives us some new super powers
- Enjoy it!

- Next Steps:
 - Go Build an awesome web application



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