Fejes Anikó
@hubudibu
@frontendmeetup
@KIBU
codepen.io/hubudibu
The "Rule of Least Power" suggests choosing the least powerful solution suitable for a given purpose.

http://blog.codinghorror.com/the-principle-of-least-power/
Apps over websites
The component model for the Web
Encapsulation
Clean API
DRY
Portability
a new way of creating jQuery plugins?
"X-Tag and Polymer are both high-level sugar libraries that build upon the W3 Web Components specs - each introduces a different approach to making development of web components an even more amazing experience. To help make this more relatable, consider the following:

jQuery : DOM :: X-Tag/Polymer : Web Components."
"we need to keep our eye on moving on with implementing the core functionality in browsers. Libraries are tools to get things done now. We should allow them to become redundant."

http://christianheilmann.com/2014/04/18/web-components-and-you-dangers-to-avoid/
Shadow DOM
Templates
Custom Elements
HTML Imports
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Shadow DOM

Method of establishing and maintaining **functional boundaries between DOM trees** and how these trees interact with each other within a document, thus enabling better functional encapsulation within the DOM.
<input id="e2" type="number" min="2" max="20">

#shadow-root (user-agent)

<div id="text-field-container" pseudo="-webkit-textfield-decoration-container">
  <div id="editing-view-port">
    <div id="inner-editor"></div>
  </div>
  <div pseudo="-webkit-inner-spin-button" id="spin"></div>
</div>
DOM encapsulation
Style boundaries
Separate form from function
var host = document.querySelector("#host");
var shadowRoot = host.createShadowRoot();
shadowRoot.innerHTML = "shadow!";
Style boundaries
Insertion points

Separate form from function
This tool allows you to visualize how Shadow DOM renders in the browser. Both code blocks on the left are editable. Try changing the <content> insertion points, removing, or adding new ones to see how the composited tree is affected. You can also move over the nodes on the right to highlight the relevant markup on the left.

What's this?
Event handling
events are **retargeted** to look like they've come from the host element rather than internal elements to the Shadow DOM.
Shadow DOM
Templates
Custom Elements
HTML Imports
Method of declaring a portion of reusable markup that is *parsed* but not *rendered* until cloned.
Custom Elements

Method of defining and using new types of DOM elements in a document.
```javascript
var CustomElement = document.registerElement('custom-element');
document.body.appendChild(new CustomElement());

<custom-element></custom-element>
```
Lifecycle events
AttributeChanged event
Extending elements
progressive enhancement
```javascript
var CustonButton = document.registerElement('custom-button',
  prototype: Object.create(HTMLButtonElement.prototype),
  extends: 'button'
);

<button is="custom-button"></button>
```
Shadow DOM
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HTML Imports

Method of including and reusing HTML documents in other HTML documents.
DRY principle
Portability
Deduping
<div class="sticker">
  <p class="label">Hi, my name is</p>
</div>
Can I use it?
Chrome extensions
platform.js
Polymer
X-Tag
Bosonic
AngularJS
React
Polymer core elements
Paper elements
Mozilla Brick
Customelements.io
Component Kitchen
<google-map latitude="37.77493"
   longitude="-122.41942" fitToMarkers>
   <google-map-marker
      latitude="37.779" longitude="-122.3892"
      draggable="true" title="Go Giants!">
   </google-map-marker>
   <google-map-marker
      latitude="37.777" longitude="-122.38911">
   </google-map-marker>
</google-map>
<google-analytics
domain="example.com"
code="UA-XXXXX-Y">
</google-analytics>

<core-ajax
auto
url="http://gdata.youtube.com/feeds/api/videos/"
params='{"alt":"json", "q":"chrome"}"
handleAs="json"
on-core-response="{{handleResponse}}">
</core-ajax>
Questions?
Iframes :/

new document context
sizing issues
meaningless markup
hard to script into it
BUT it's safer