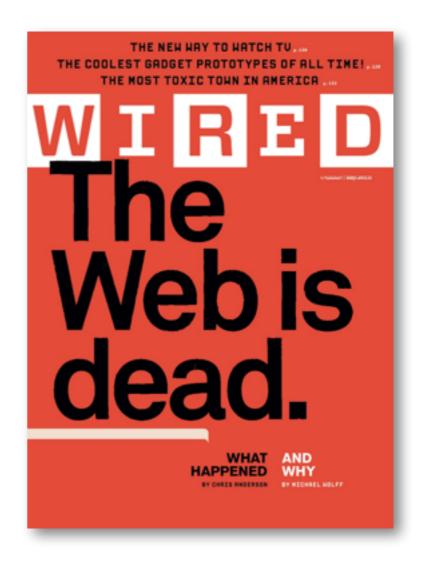
# Does the browser have a future?

Tim Bray

tbray@textuality.com · tbray.org · @timbray · +TimBray







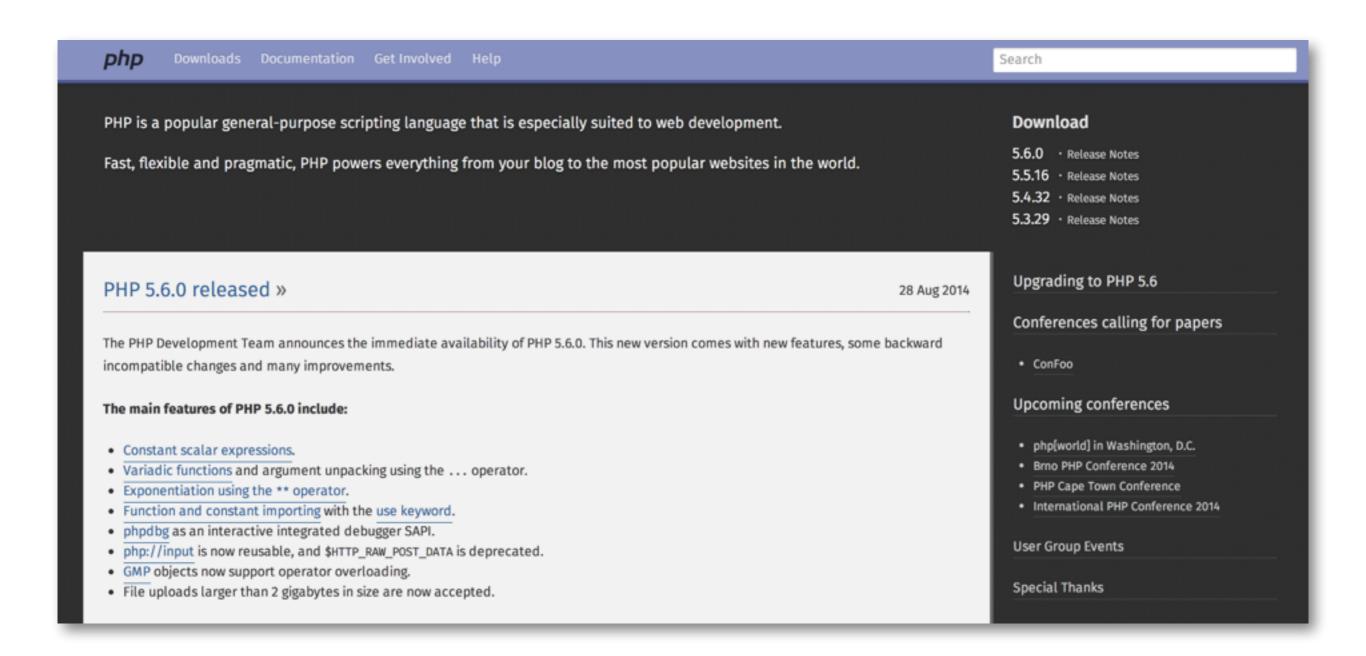
Left: 1997 Right: 2010





java.com





#### php.net



Overview | Download | Deploy | Bugs/Patches | Screencasts | Documentation | Community | Blog



### Web development that doesn't hurt

Ruby on Rails® is an open-source web framework that's optimized for programmer happiness and sustainable productivity. It lets you write beautiful code by favoring convention over configuration.

#### Rails 4.2.0 beta1: Active Job, Deliver Later, Adequate Record, Web Console

#### Get Excited



Screencasts & presentations

#### Get Started



4.1.5 released Aug 18, 2014

#### Get Better



API, Guides, Books

#### Get Involved

IRC Mailing lists Bug tracker Wiki

Join the community

rubyonrails.org



#### The Web framework for perfectionists with deadlines.

Django makes it easier to build better Web apps more quickly and with less code.

#### Meet Django

Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design.

Developed by a fast-moving online-news operation, Django was designed to handle two challenges: the intensive deadlines of a newsroom and the stringent requirements of the experienced Web developers who wrote it. It lets you build high-performing, elegant Web applications quickly.

Django focuses on automating as much as possible and adhering to the DRY principle.

Dive in by reading the overview →

When you're ready to code, read the installation guide and tutorial.

#### The Django framework

#### Object-relational mapper

Define your data models entirely in Python. You get a rich, dynamic database-access API for free — but you can still write SQL if needed.

#### Automatic admin interface

Save yourself the tedious work of creating interfaces for people to add and update content. Django does that automatically, and it's production-ready.

#### Download

Latest release: 1.7

Open source, BSD license

#### Documentation

Installation guide

Tutorial

Full index...

#### Sites that use Django

#### Disque

Beautiful, real-time, engaging comments threads for your website.

#### Instagram

A fast, beautiful and fun photo-sharing app for iOS and Android.

#### Mozilla

Makers of Firefox, and defenders of the openness, innovation, and opportunity on the web.

#### OpenStack

Open source software for building private and public clouds.

#### Weblog

#### Call for nominations for the 2014 Malcolm Tredinnick Memorial Prize

by Russell Keith-Magee on Sep. 10, 2014

The Django Software Foundation is calling for nominations for the 2014 Malcolm Tredinnick Memorial Prize.

#### Read more

#### DjangoCon US 2014 shirt available

by Russell Keith-Magee on Sep. 9, 2014

A shirt for DjangoCon US 2014 is now available! Read more

#### Django's Inaugural Technical Board Elected

by Tim Graham on Sep. 6, 2014

The Django team has elected the inaugural technical board.

#### Read more

#### Django 1.7 released

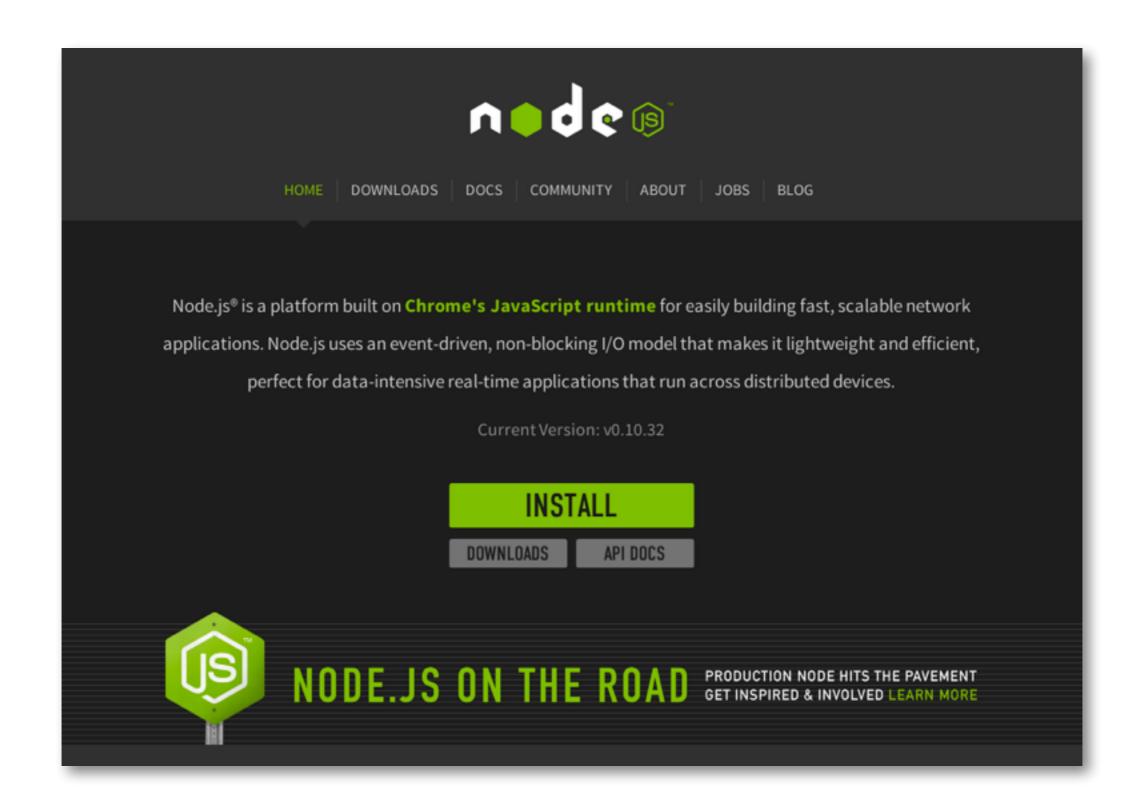
by James Bennett on Sep. 2, 2014

Django 1.7 has been released!

Read more

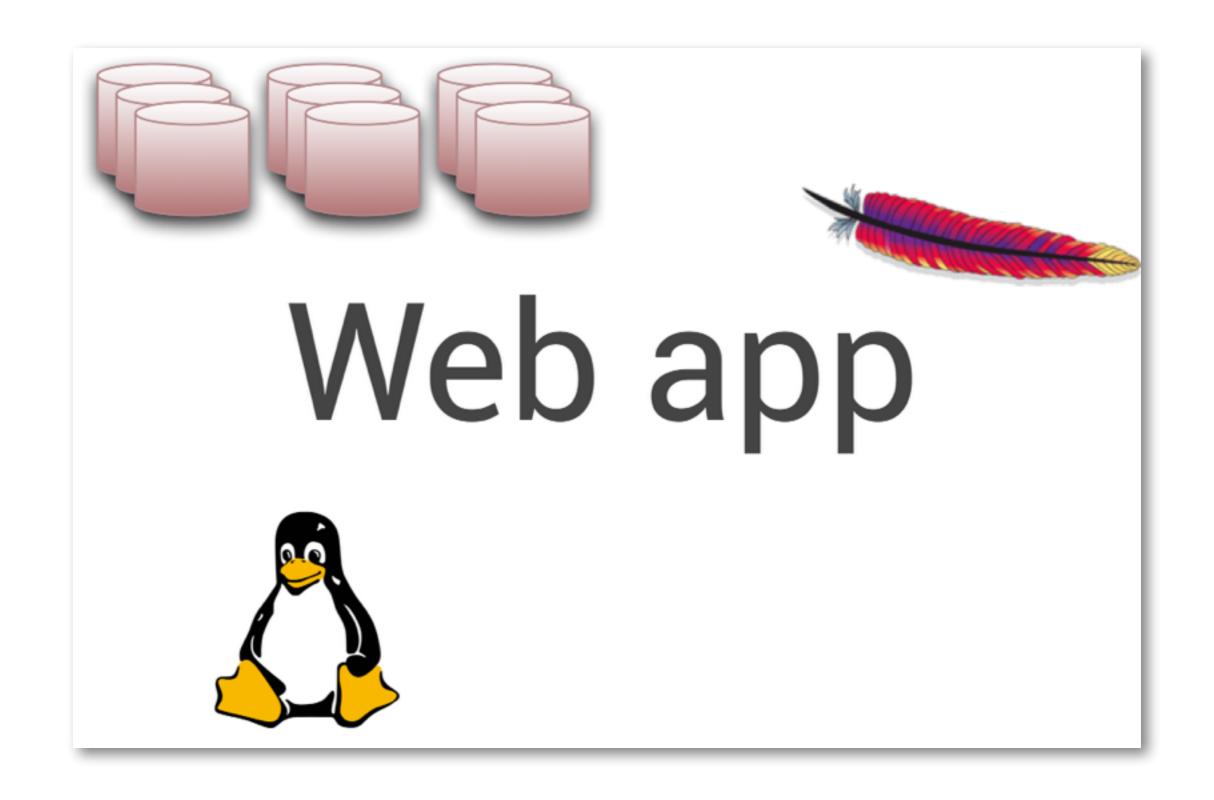
djangoproject.com





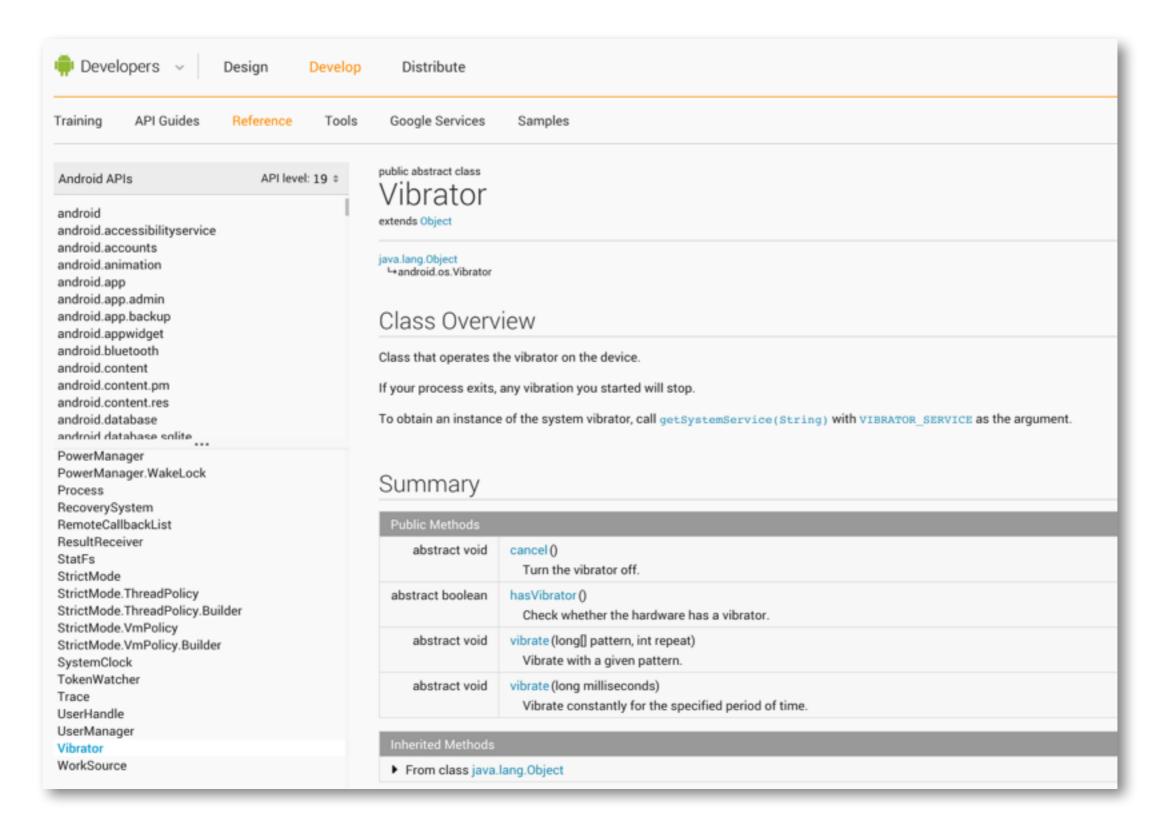
nodejs.org







### Textuality



developer.android.com/reference/android/os/Vibrator.html





### Textuality

### Functional thinking with Erlang

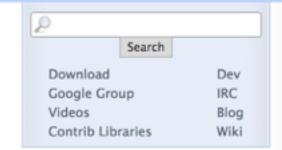
```
counter_loop(Count) ->
                               incr(Counter) ->
receive
                                Counter ! { incr }.
 { incr } ->
   counter_loop(Count + 1);
                               find_count(Counter) ->
 { report, To } ->
                                Counter ! { report, self() },
                                receive
   To ! { count, Count },
   counter_loop(Count)
                                 { count, Count } ->
end.
                                  Count
                                end.
```

### Scalable parallel counters!

tbray.org/ongoing/When/200x/2007/09/21/Erlang







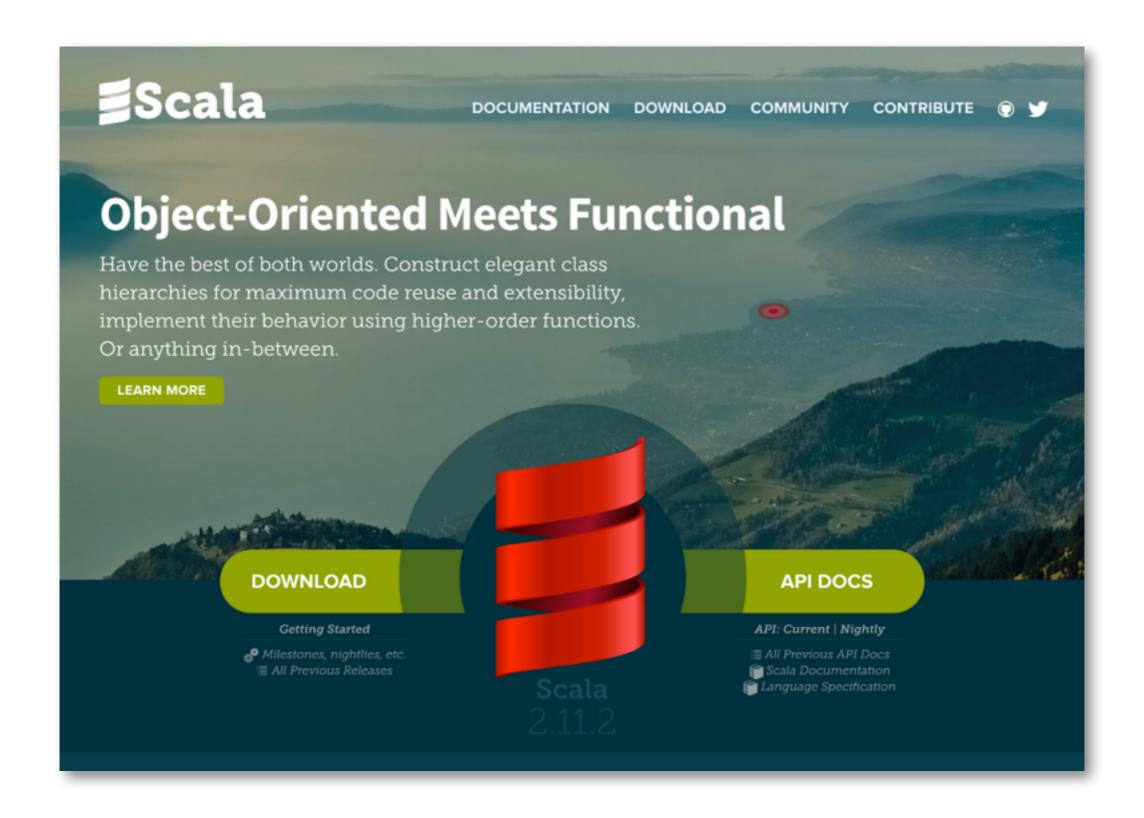
Rationale
Features
Download
Getting Started
Documentation
Libraries
Community

Clojure is a dynamic programming language that targets the Java Virtual Machine (and the CLR, and JavaScript). It is designed to be a general-purpose language, combining the approachability and interactive development of a scripting language with an efficient and robust infrastructure for multithreaded programming. Clojure is a compiled language – it compiles directly to JVM bytecode, yet remains completely dynamic. Every feature supported by Clojure is supported at runtime. Clojure provides easy access to the Java frameworks, with optional type hints and type inference, to ensure that calls to Java can avoid reflection.

Clojure is a dialect of Lisp, and shares with Lisp the code-as-data philosophy and a powerful macro system. Clojure is predominantly a functional programming language, and features a rich set of immutable, persistent data structures. When mutable state is needed, Clojure offers a software transactional memory system and reactive Agent system that ensure clean, correct, multithreaded designs.

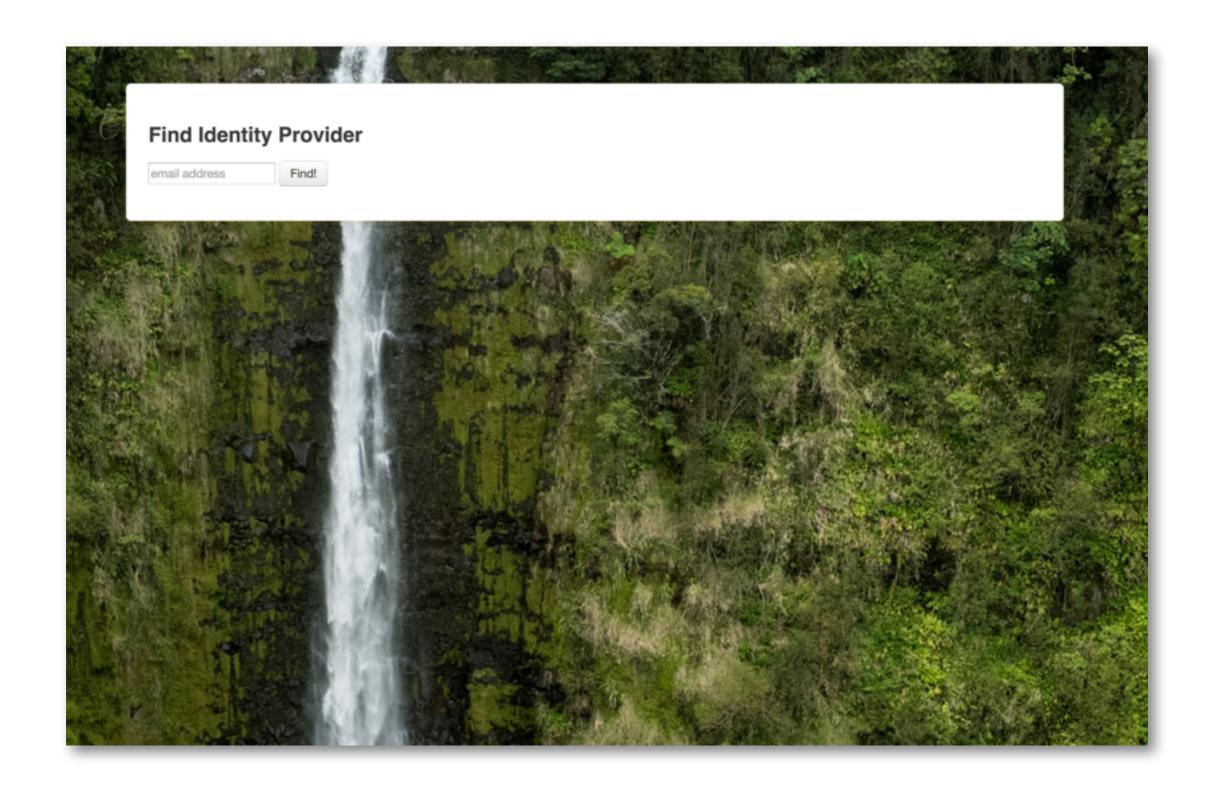
I hope you find Clojure's combination of facilities elegant, powerful, practical and fun to use.

The primary forum for discussing Clojure is the Google Group - please join us!



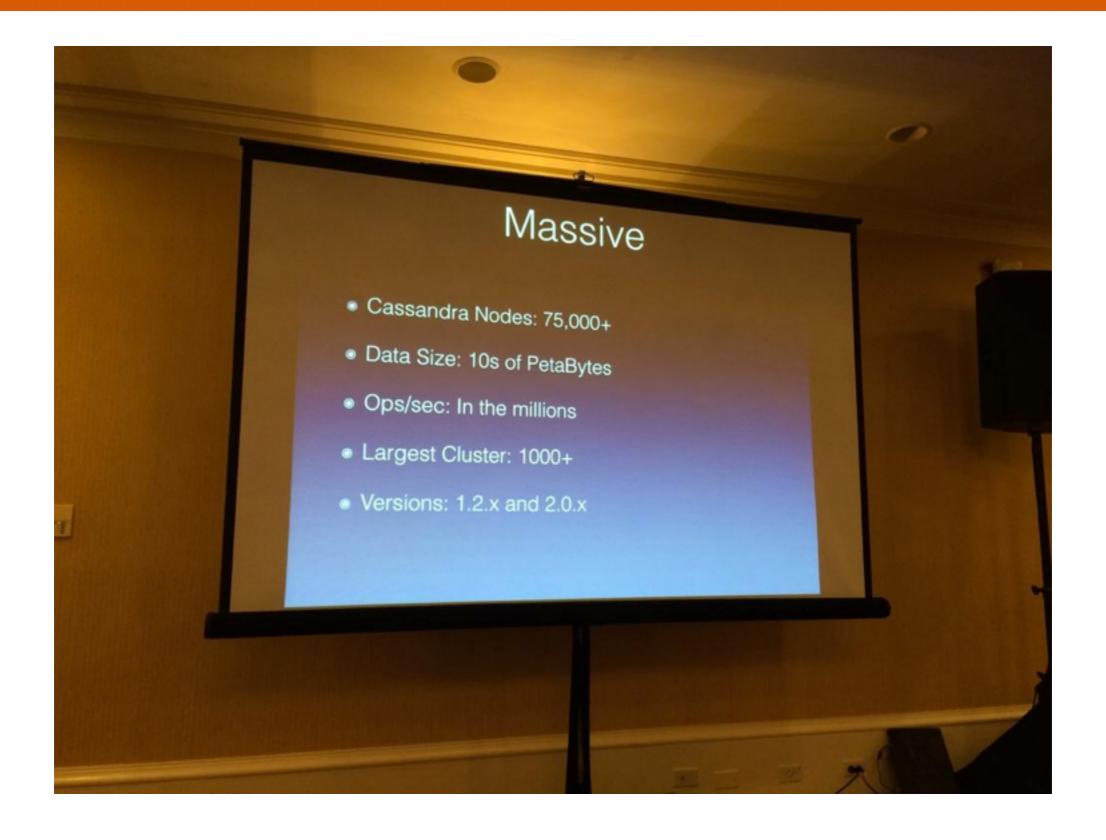
scala-lang.org





findIDP.appspot.com

```
c := make(chan SearchResult)
    go timeout(c)
    for _, searcher := range Searchers {
         go searcher.Search(email, c, handles)
    bestStrength := -1
    outstanding := len(Searchers)
    bestResult = SearchResult{TimeoutType, []IDP{}}
    for outstanding > 0 {
        result := <-c
        outstanding--
        if result.rtype == TimeoutType {
            break // timed out, don't wait for trailers
        if len(result.idps) == 0 {
            continue // a result that found nothing, ignore it
        resultClass := ResultStrengths[result.rtype]
        if resultClass.verified {
            bestResult = result
                  // verified results trump all others
            break
        if resultClass.strength > bestStrength {
            bestStrength = resultClass.strength
            bestResult = result
        } else if resultClass.strength == bestStrength {
            bestResult.idps = merge(bestResult.idps, result.idps)
    }
func timeout(c chan SearchResult) {
     time.Sleep(2000 * time.Millisecond)
     c <- SearchResult{rtype: TimeoutType}</pre>
```

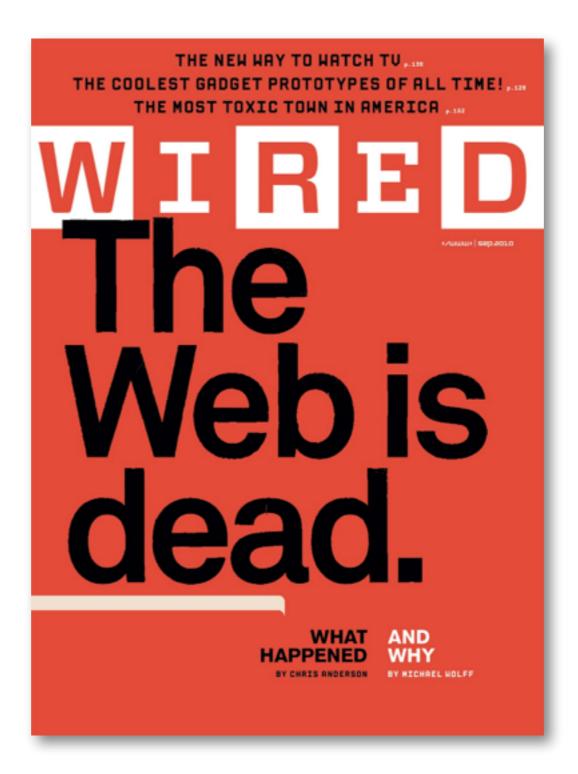


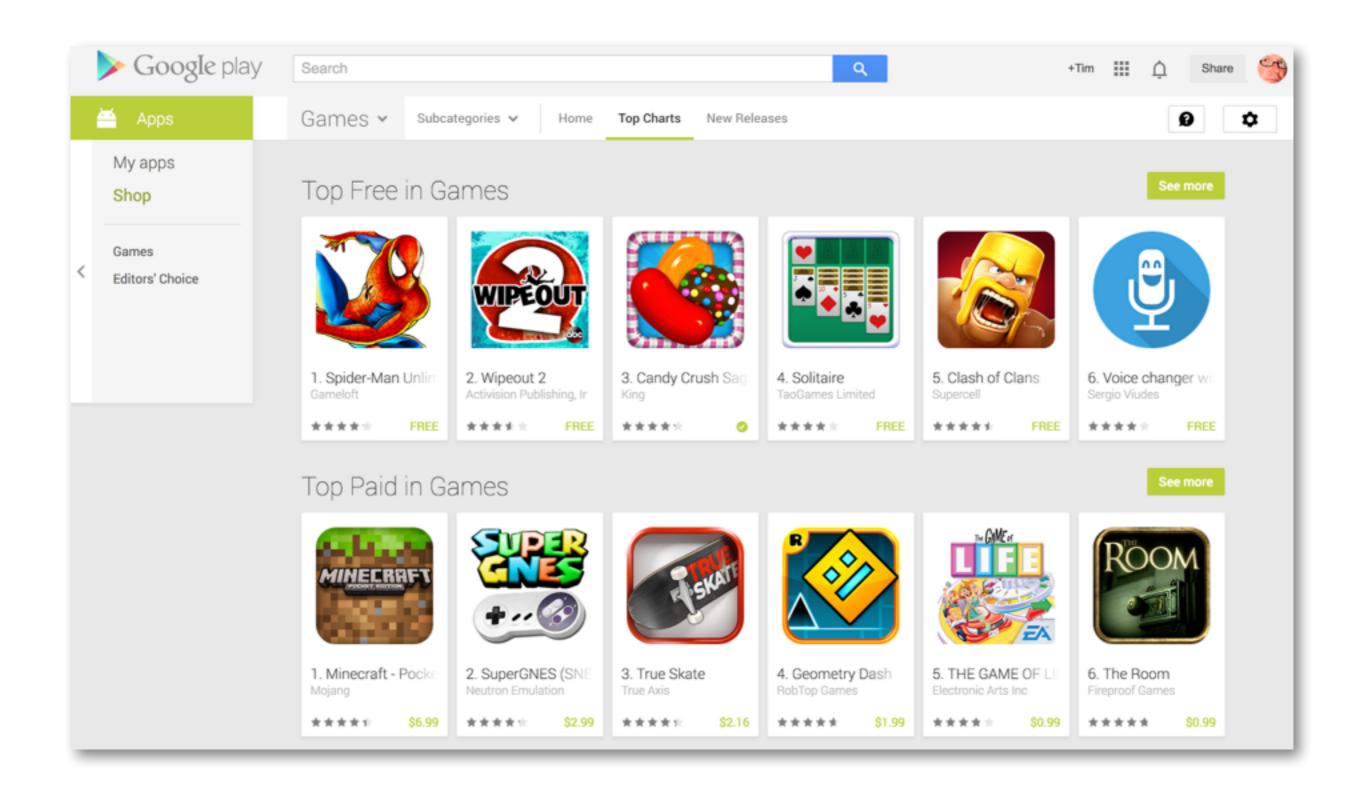
twitter.com/levwalkin/status/510197979542614016/photo/1



### Cassandra Summit 2014

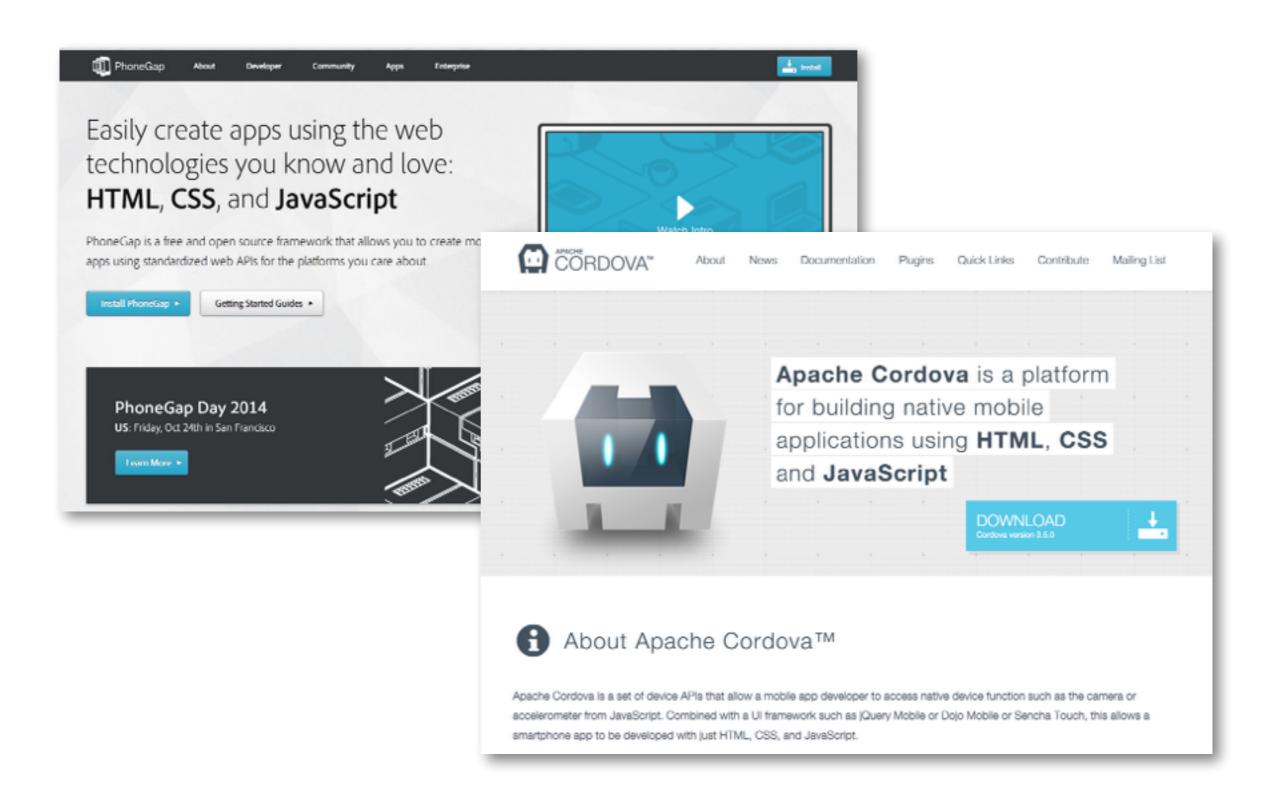
Featuring sessions on Cassandra at: Netflix, Disney, Sony PSN, Early Warning, Instagram, Credit Suisse, FamilySearch, Orange, Demonware, ING, Apple, Fedex, Ebay, and Telefonica.





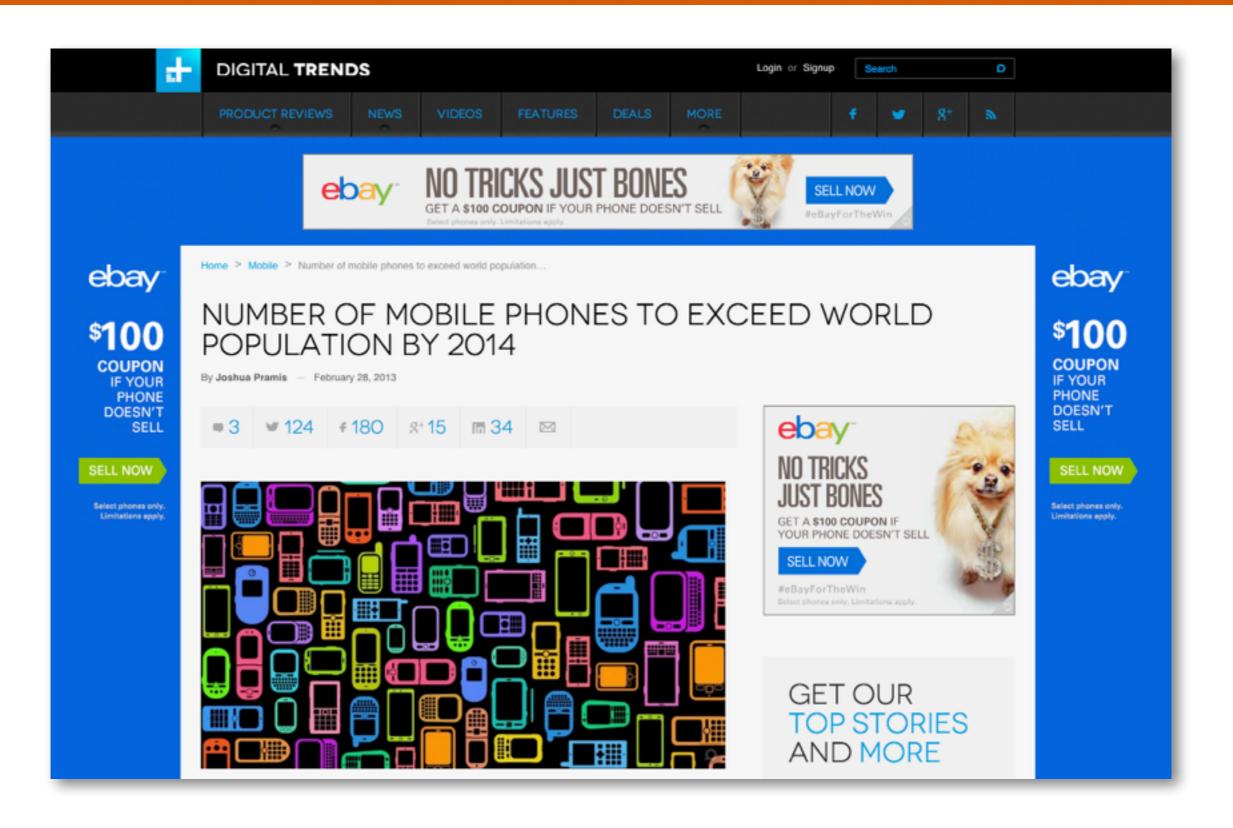
play.google.com/store/apps/top/category/GAME





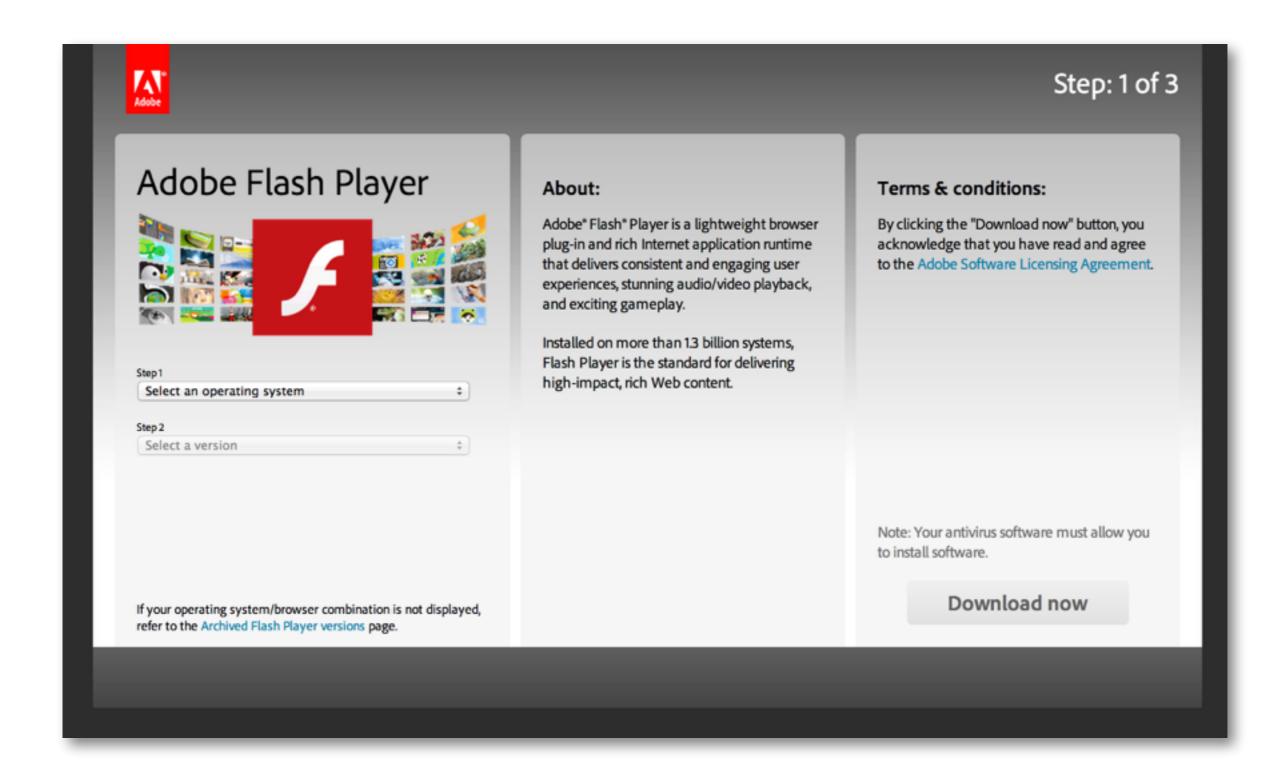
phonegap.com, cordova.apache.org





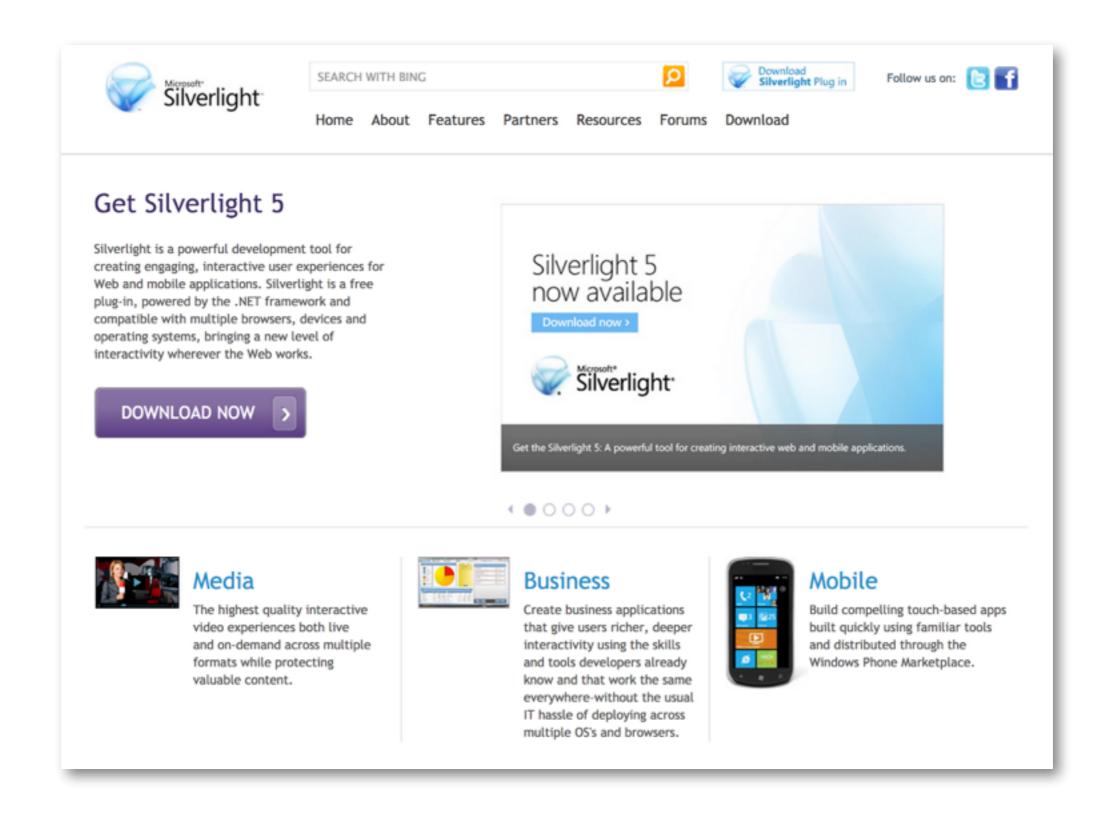
www.digitaltrends.com/mobile/mobile-phone-world-population-2014/





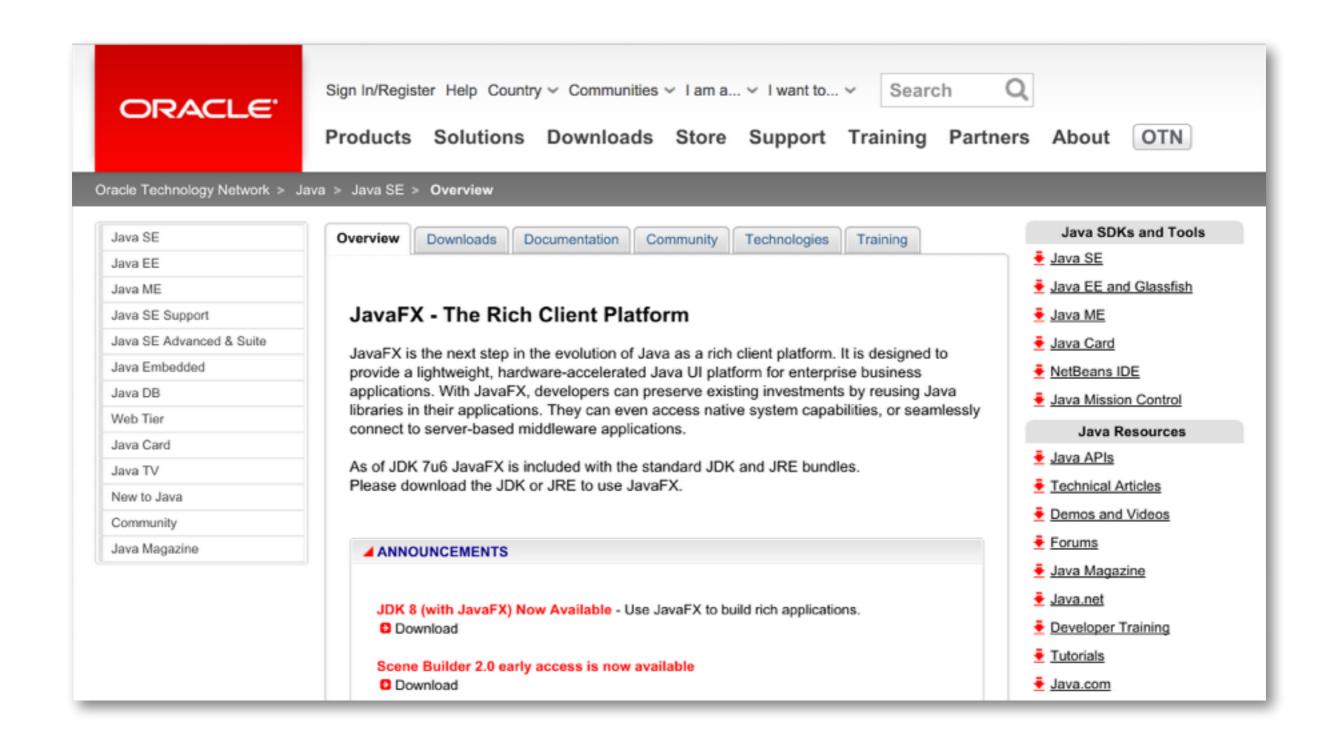
get.adobe.com/flashplayer/





www.microsoft.com/silverlight/

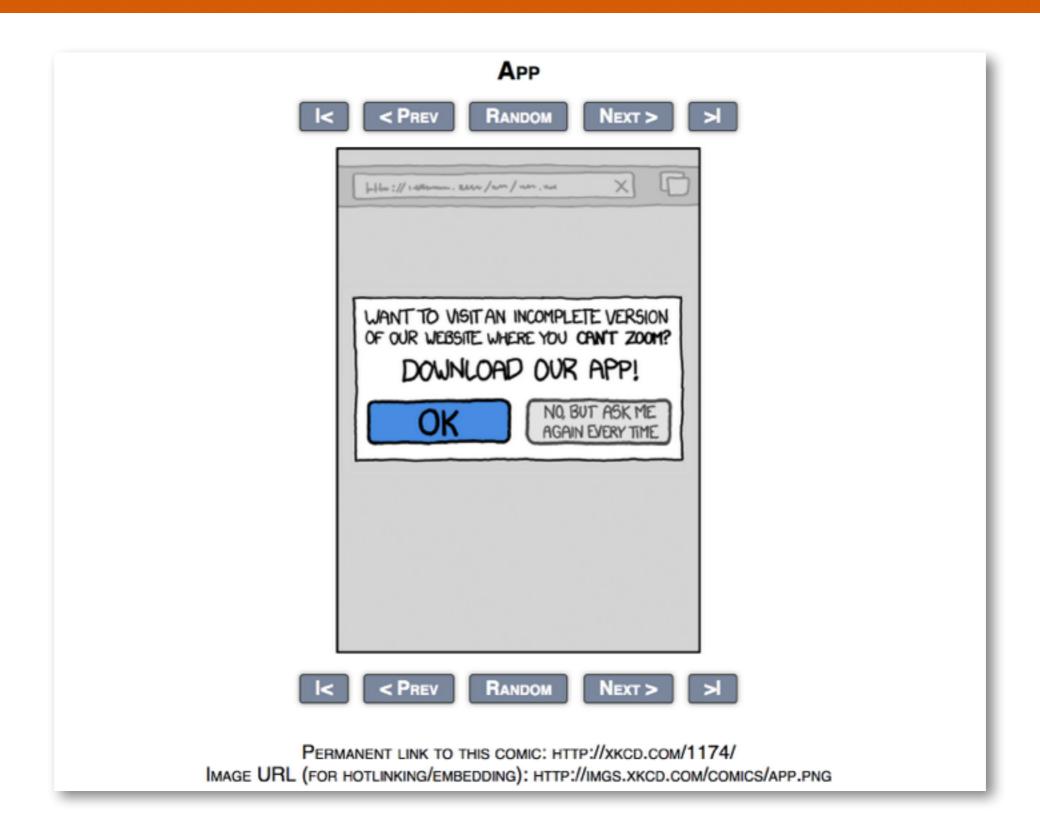




www.oracle.com/technetwork/java/javase/overview/javafx-overview-2158620.html



## Jim...



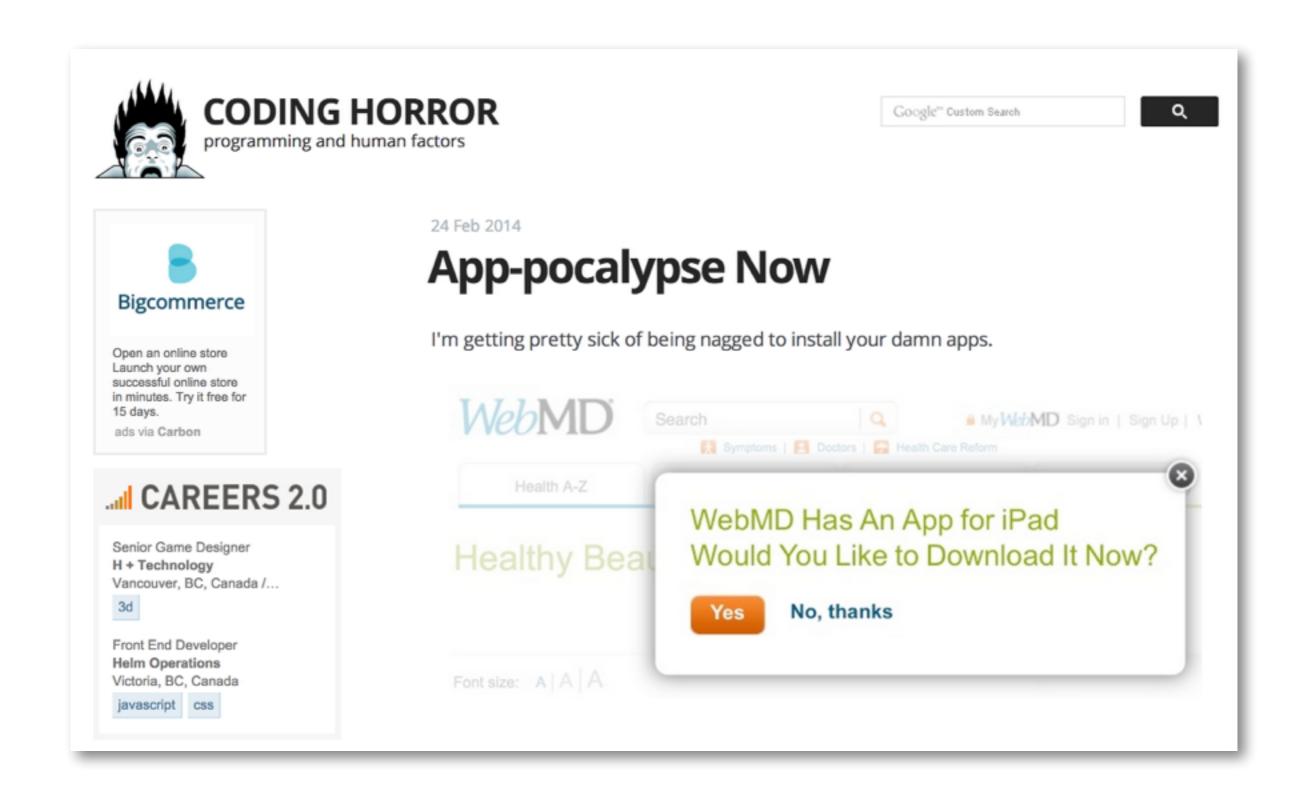
xkcd.com/1174/





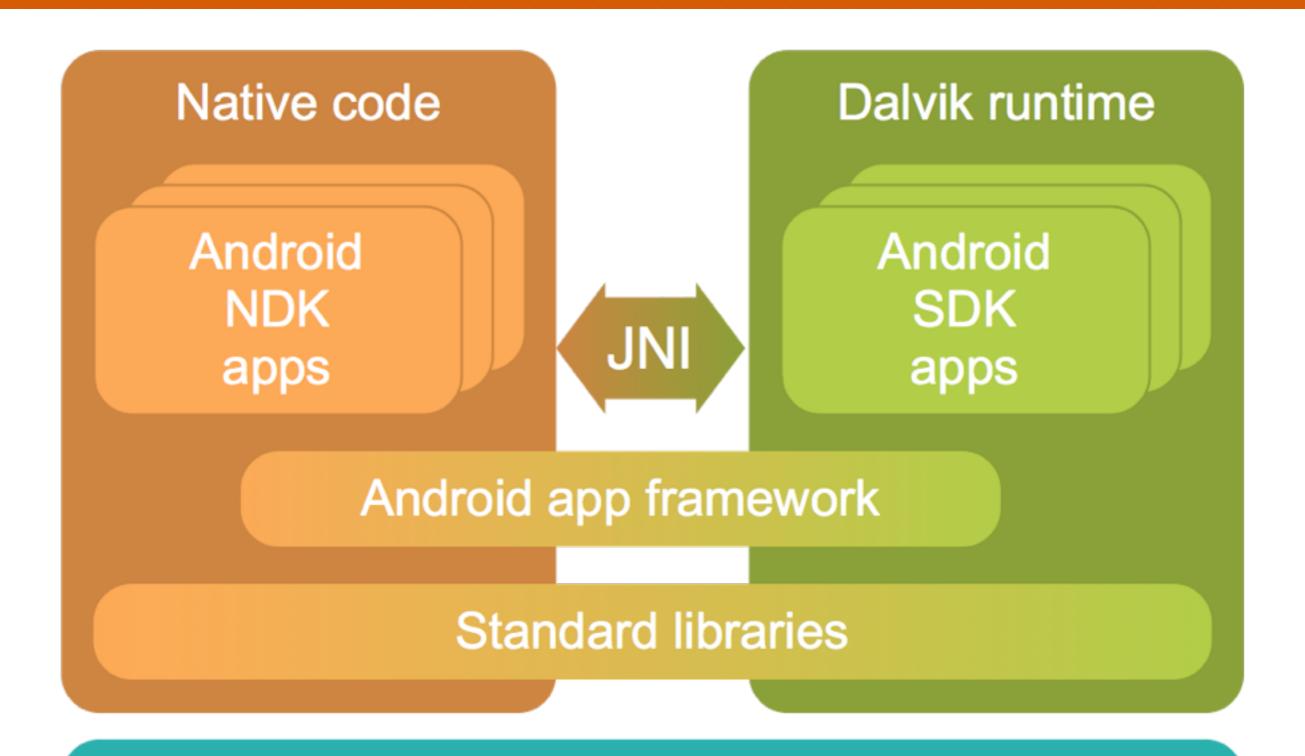
idontwantyourfuckingapp.tumblr.com/





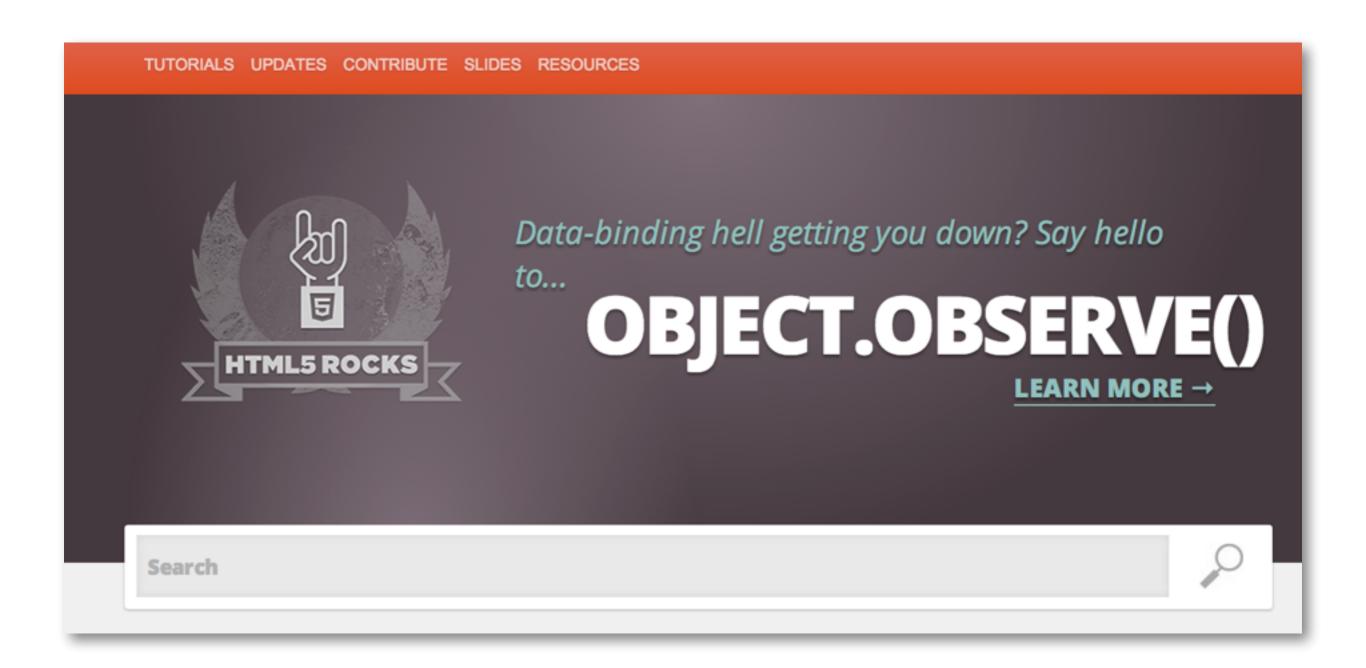
blog.codinghorror.com/app-pocalypse-now/





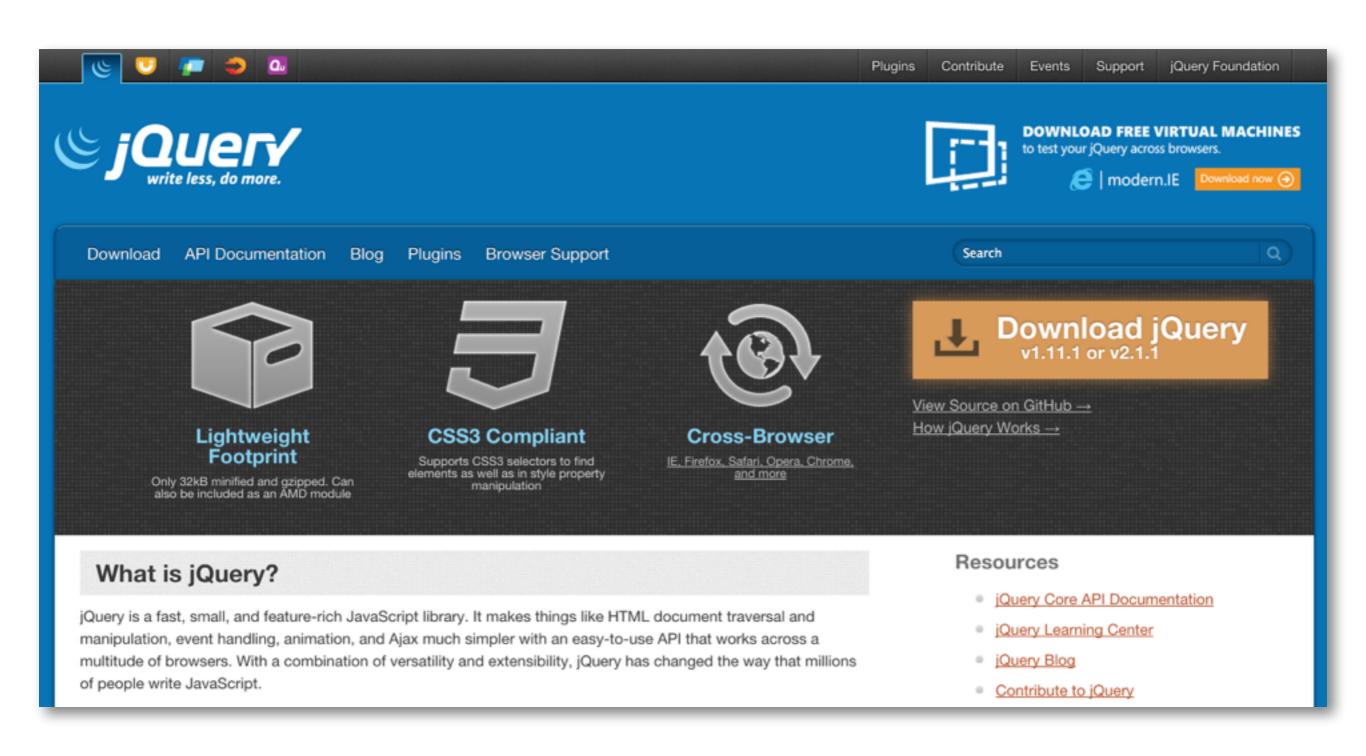
Linux kernel + Android extensions





html5rocks.com





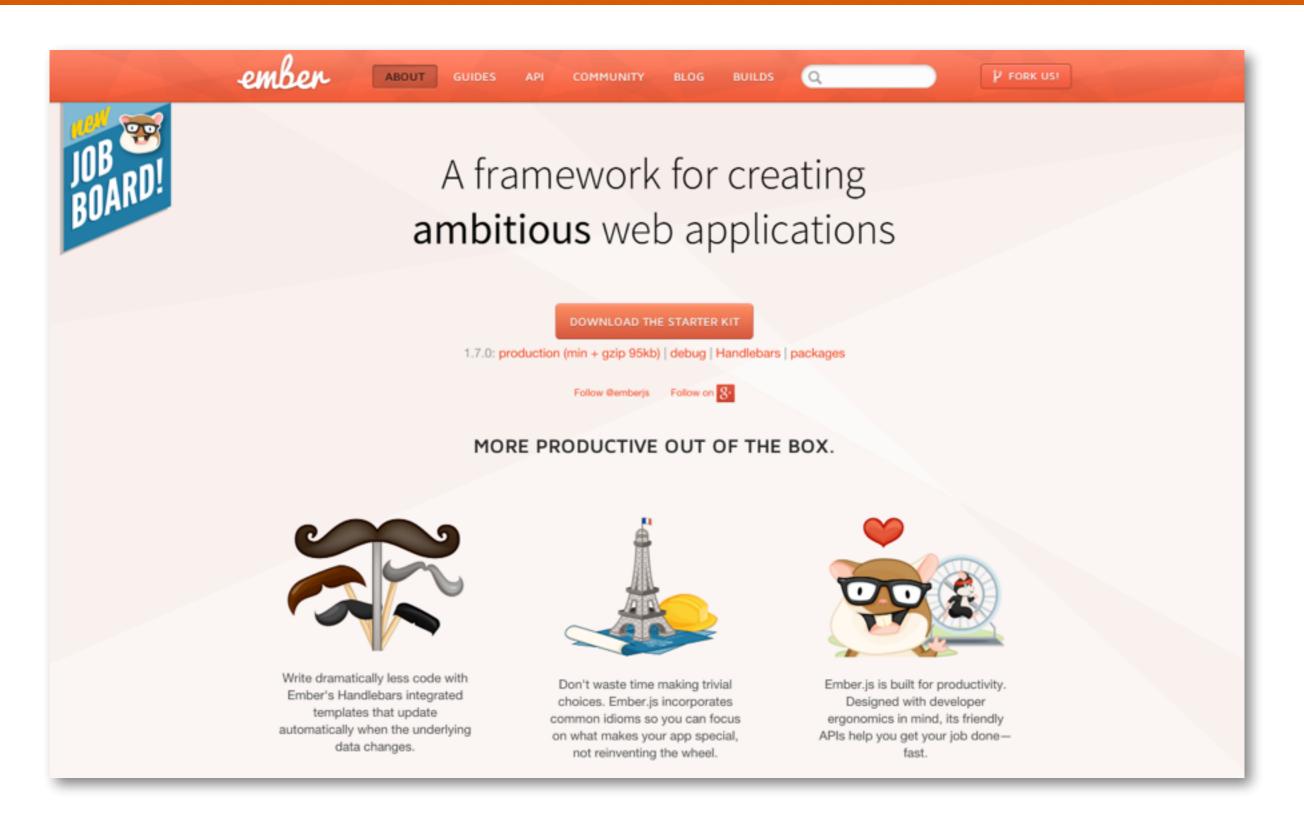
jquery.com





angularjs.org





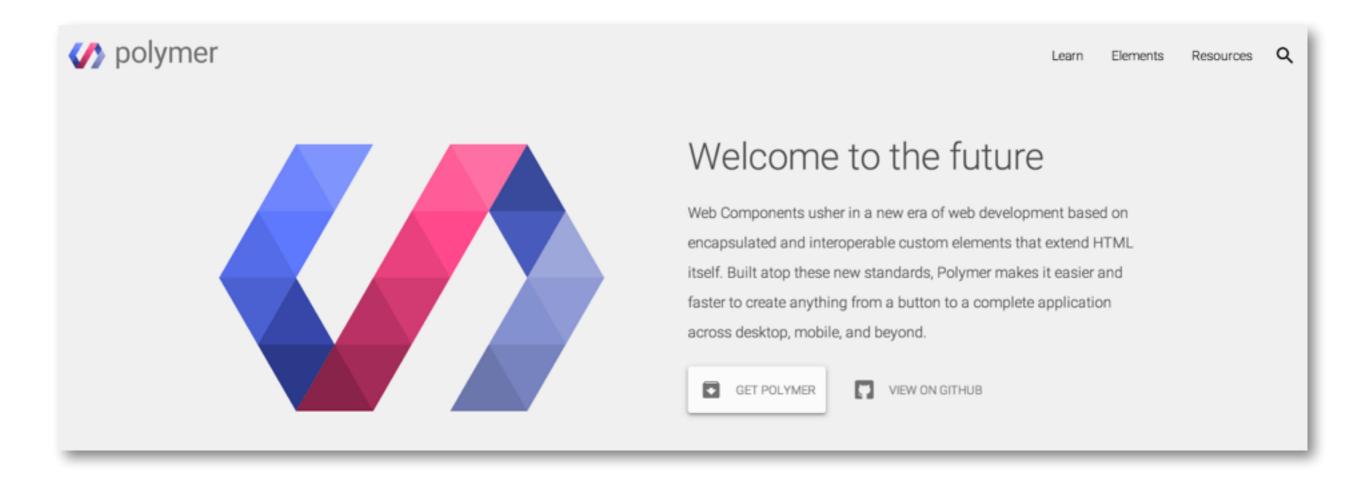
emberjs.com





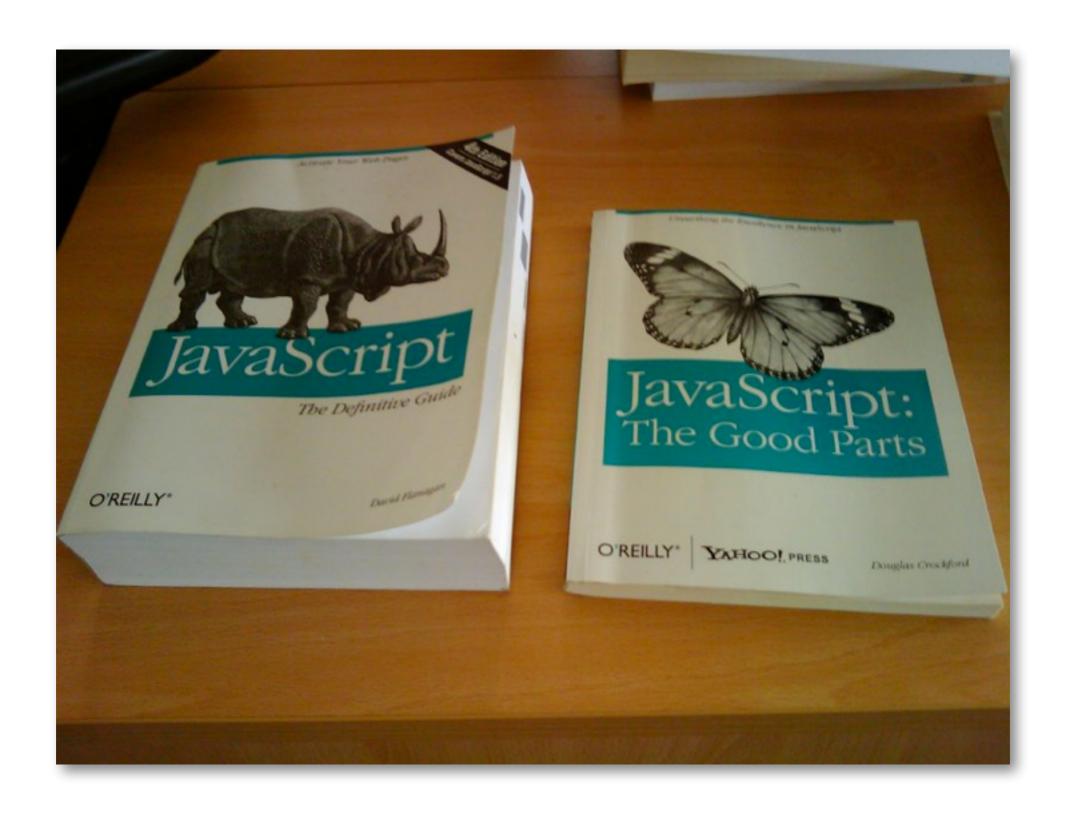
#### backbonejs.org



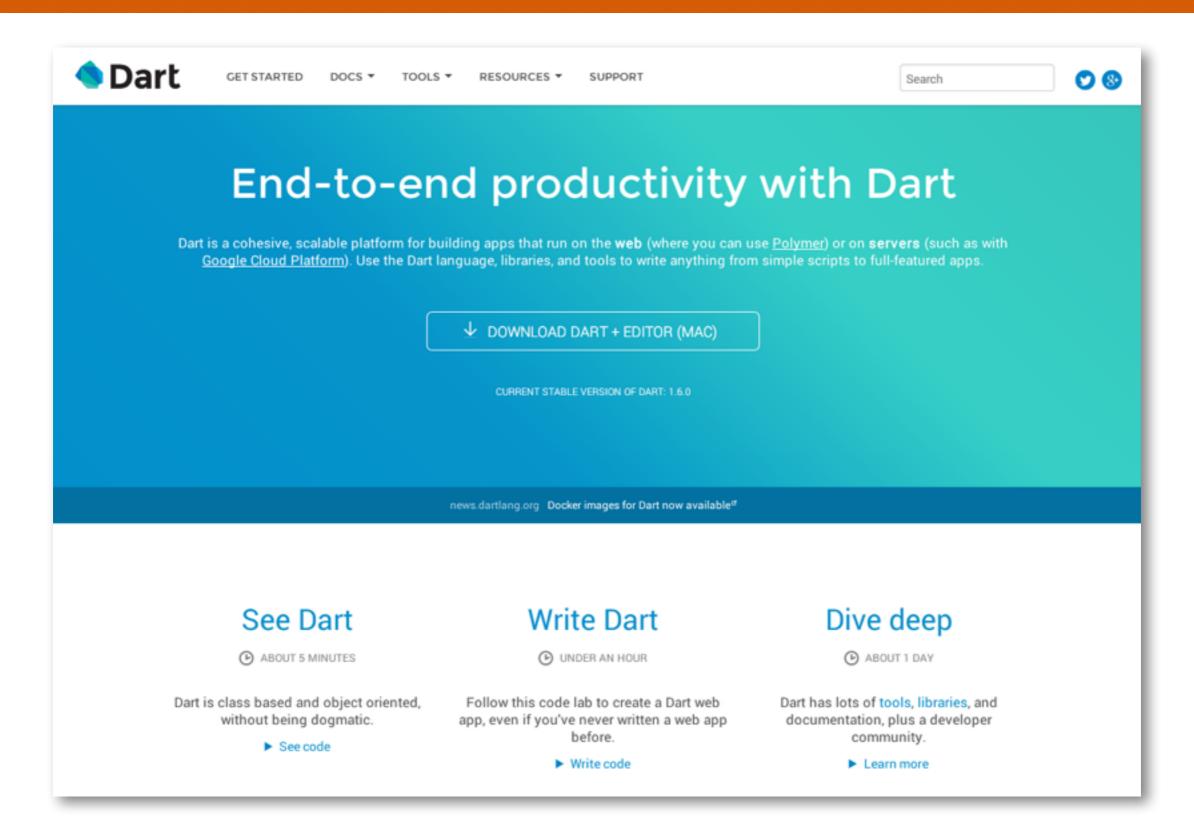


polymer-project.org





nermal.org/misc/javascript.jpg



www.dartlang.org



### asm.js

```
an extraordinarily optimizable, low-level subset of JavaScript
specification (work in progress)
frequently asked questions
big web app? compile it! - slide deck by @kripken
```

asmjs.org





TABLE OF CONTENTS

TRY COFFEESCRIPT

ANNOTATED SOURCE

CoffeeScript is a little language that compiles into JavaScript. Underneath that awkward Javaesque patina, JavaScript has always had a gorgeous heart. CoffeeScript is an attempt to expose the good parts of JavaScript in a simple way.

The golden rule of CoffeeScript is: "It's just JavaScript". The code compiles one-to-one into the equivalent JS, and there is no interpretation at runtime. You can use any existing JavaScript library seamlessly from CoffeeScript (and vice-versa). The compiled output is readable and pretty-printed, will work in every JavaScript runtime, and tends to run as fast or faster than the equivalent handwritten JavaScript.

coffeescript.org



**Table of Contents** 

Try It

**Annotated Source** 

**Iced Features** 

**Iced**CoffeeScript is a superset of CoffeeScript. The iced interpreter is a drop-in replacement for the standard coffee interpreter; it will interpret almost all existing CoffeeScript programs.

IcedCoffeeScript (ICS) adds two new keywords: await and defer. These additions simply and powerfully streamline asynchronous control flow, both on the server and on the browser. Say goodbye to callback pyramids; say adios to massive code rewrites when synchronization requirements change slightly. Say hello to clean, readable, maintainable control flow for network and asynchronous operations!

The golden rule of CoffeeScript was: "It's just JavaScript". ICS is doing something deeper. It's selectively running code through a continuation-passing style conversion. Original-style CoffeeScript will compile as before, but code using the new ICS features will be less recognizable. Still, the compiled output is readable and pretty-printed, passes through JavaScript Lint without warnings.

maxtaco.github.io/coffee-script



Computer science.

Vertically and horizontally centering a <div> with CSS is the hardest problem in

- Gregor Rothfuss

plus.google.com/+GregorJRothfuss/posts/5Z1kezgiCvm



Language Features

Function Reference

Usage

About

GitHub -

## Getting started

An overview of Less, how to download and use, examples and more.

less v1.7.5 has been released - See what's new

Getting Started

Using Less

Command-line With Rhino

Client-side usage

Get Less.js

License FAQs

#### Getting Started

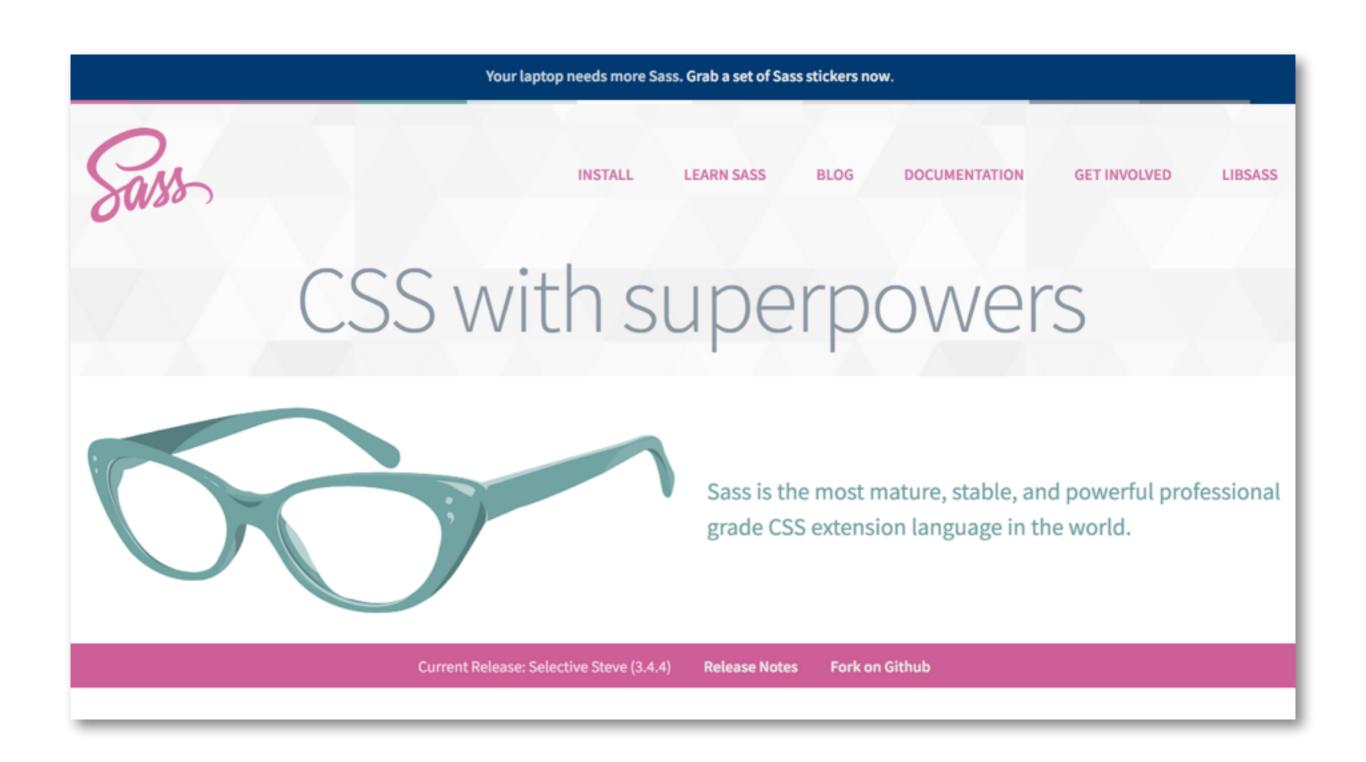
Less is a CSS pre-processor, meaning that it extends the CSS language, adding features that allow variables, mixins, functions and many other techniques that allow you to make CSS that is more maintainable, themable and extendable.

Less runs inside Node, in the browser and inside Rhino. There are also many 3rd party tools that allow you to compile your files and watch for changes.

For example:

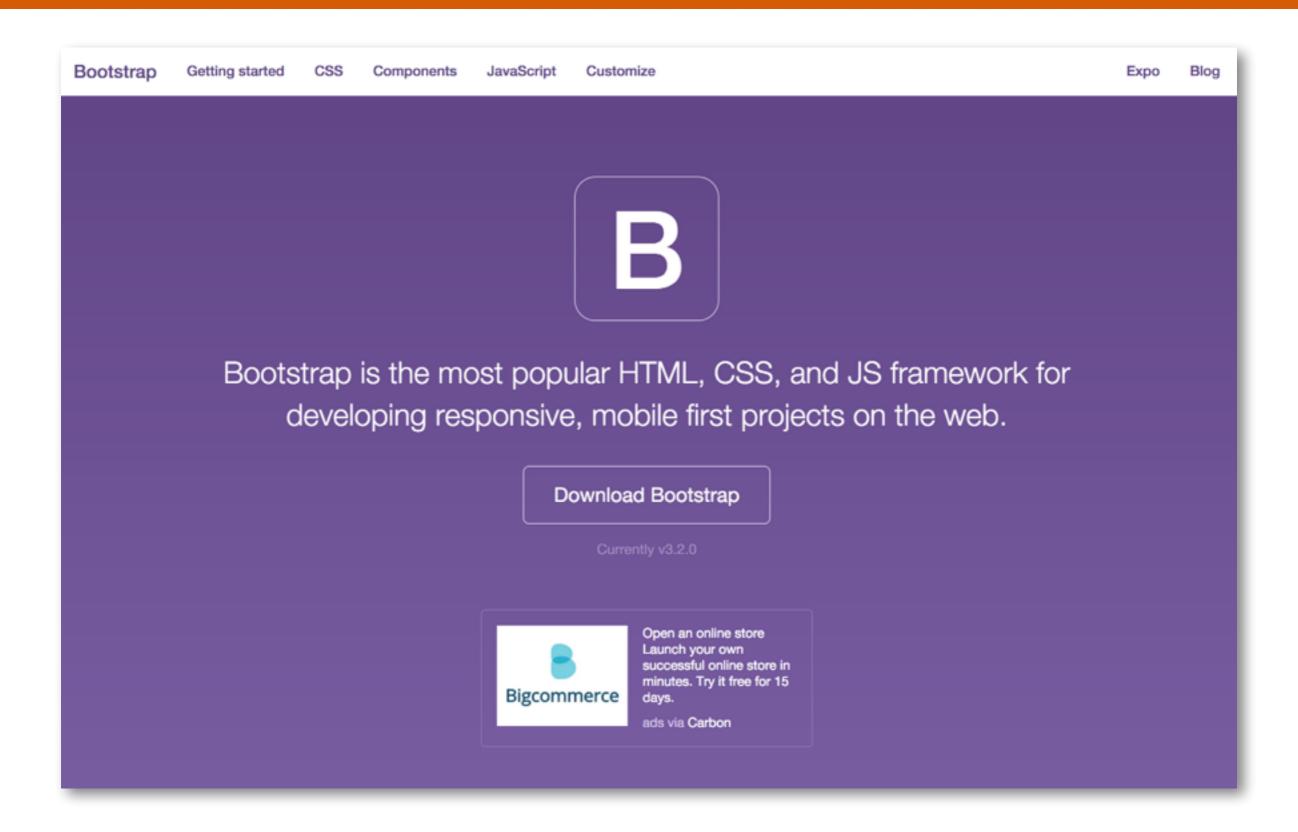
lesscss.org





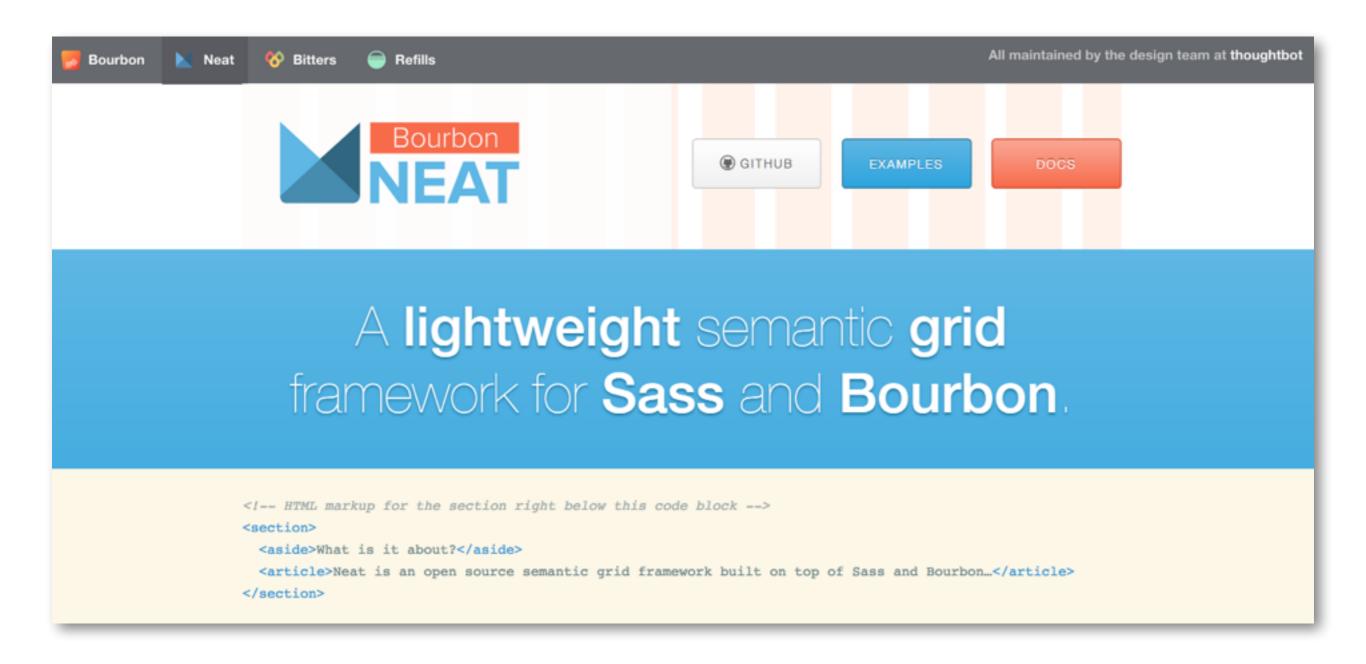
sass-lang.com





getbootstrap.com





neat.bourbon.io

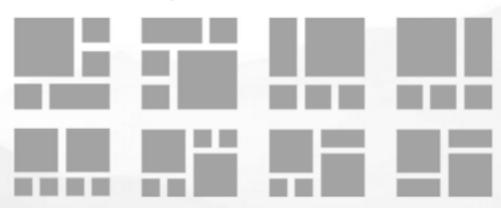






A responsive grid system built with the power of <u>Sass</u>

#### Limitless layouts...



...one simple system



Design responsive, adaptive or fixed-width



No more Math! Let Sass do the work.



Unburden your mind! Free your creativity!

Writing CSS for web page layouts is hard.

Writing your layout in Sass with Zen Grids is easy.

zengrids.com



# **YXBX.JS**



# Textuality

I recently worked on a 6 month long project... We were tasked with building out an internal data analytics tool that would let non-technical folks slice and dice data in one of our primary data stores.

I think we assumed going in that the server-side piece would be where we spent most of our time, but it was actually trivial given the incredible tool set you have to work with on the server. ...

We really ran into problems when it came to building a web app to display this data. All of the developers besides myself needed to first learn javascript and jquery, which aren't altogether difficult to learn, but have some really strange quirks. And then CSS/Sass, which can be really conceptually difficult for newcomers ("No, you can't just do height: 100%;. Why? Well...", "Yes, it is strange that your div is behind your other div even though it has a higher z-index", "You need to clearfix that outer div to fix the way all those things are floating over each other. What's a clearfix? It's another well accepted hack." etc). And then Backbone, and Marionette to make Backbone better. And requireJS, because javascript doesn't have a linker. And of course, you need to package and minimize this stuff together, because you wind up having to load 1MB of javascript into the page before you can click a button... Thank god this was an internal tool, because the idea of making this thing work for IE is terror-inducing.

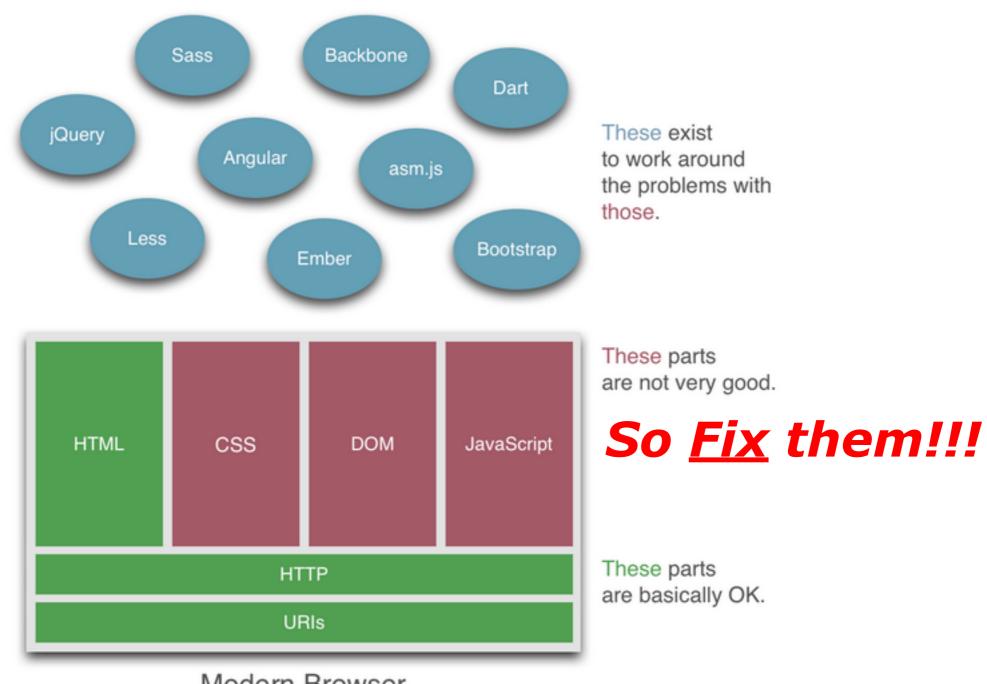
The number of WTF's per person per day was probably 5-10x higher on the frontend piece...

reddit.com/r/programming/comments/1useus/software\_in\_2014\_ongoing\_by\_tim\_bray/celdofq





Opabinia regalis



Modern Browser

twitter.com/timbray/status/433362625276018689



