



Bespin and the Open Web

Ben Galbraith and Dion Almaer



mozilla LABS
concept series

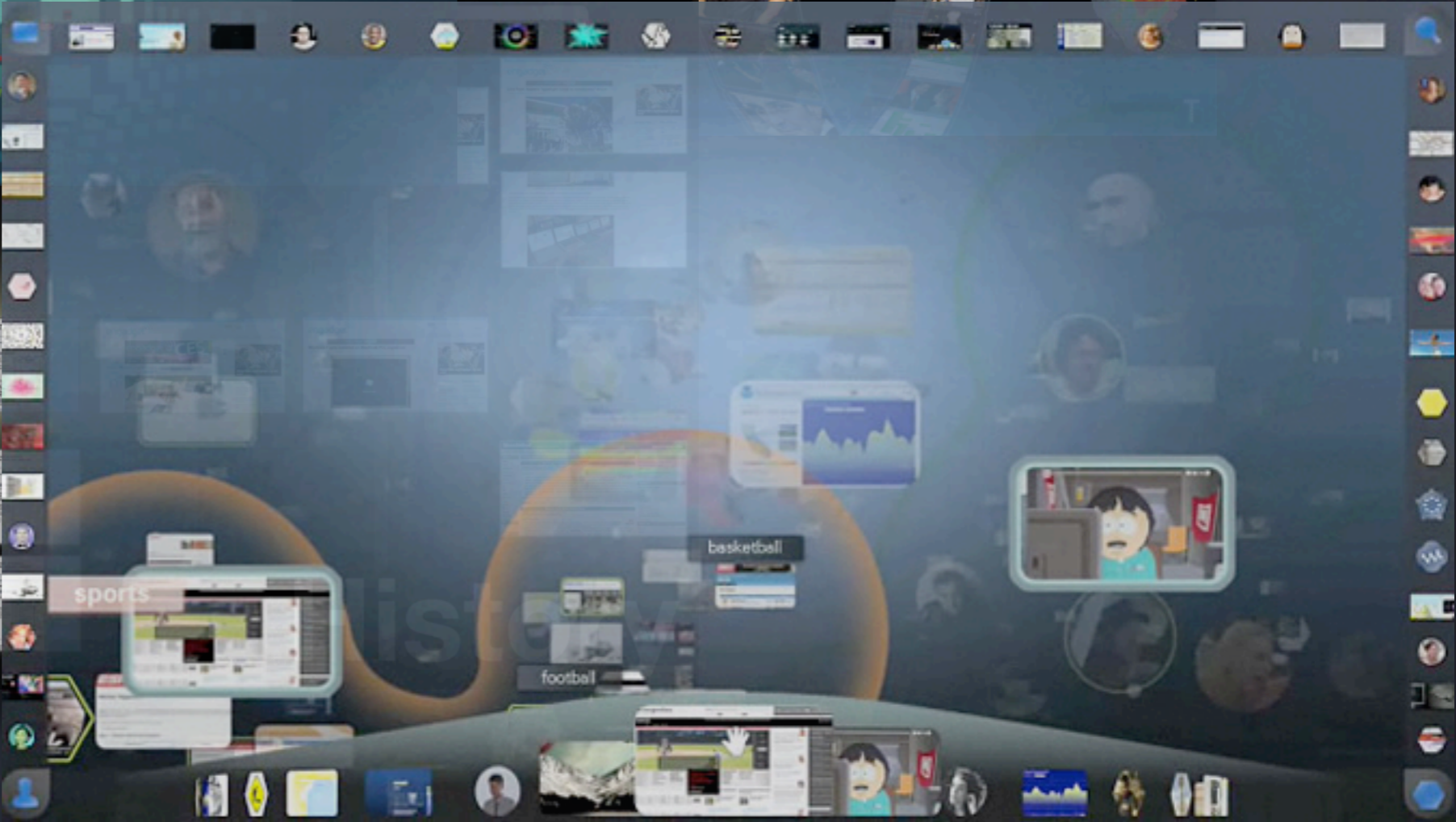


3:09pm

3:09:45

3:10pm

3:10 pm
meeting with advisor





Netscape® Communicator 4.79



NETSCAPE

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Mozilla Firefox Start Page

http://www.google.com/firefox?client=fire

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Firefox Start



Google™

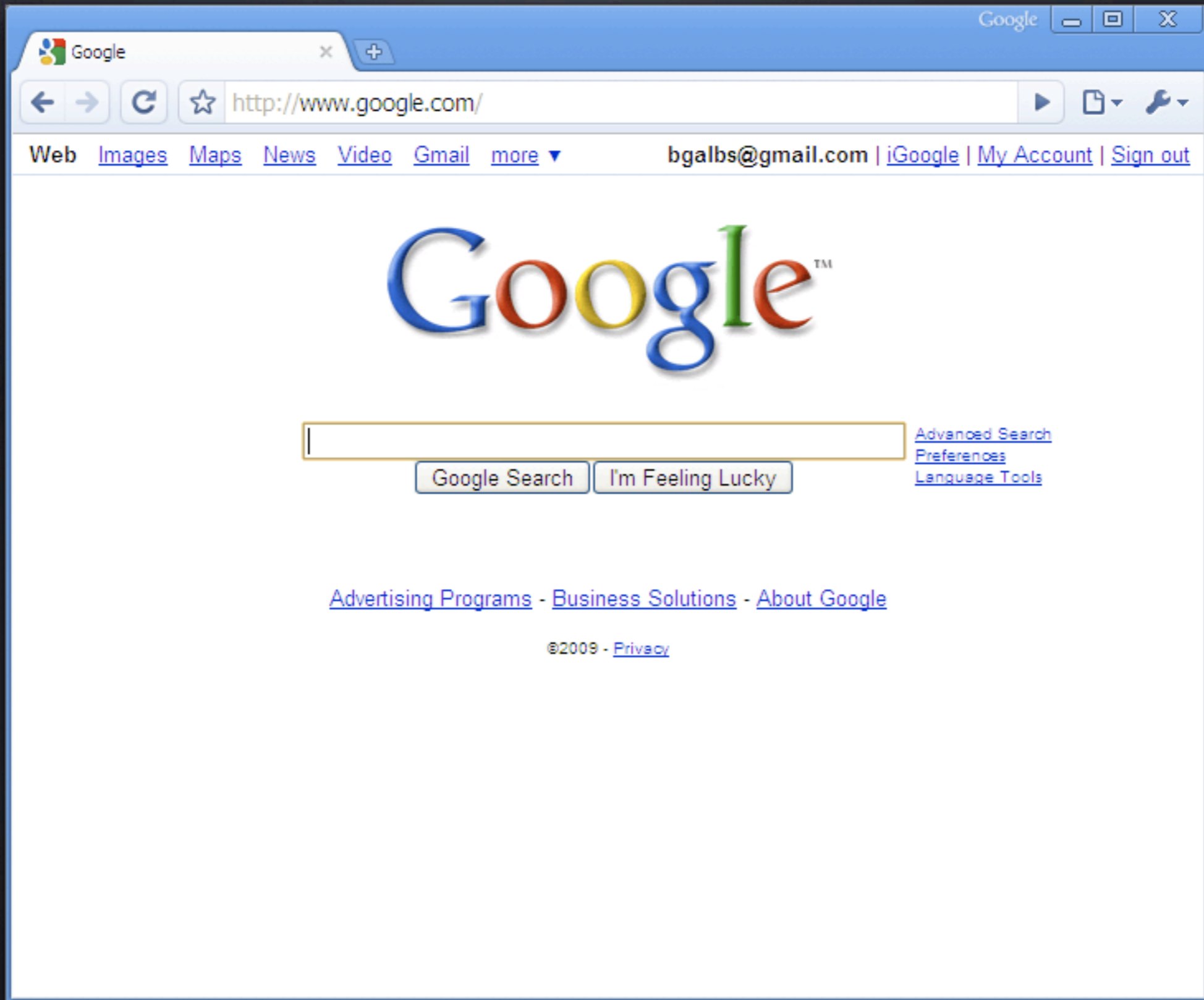
[Advanced Search](#)
[Preferences](#)

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 Experience the Web the way you want it: our add-ons wizard will [customize Firefox to your exact interests.](#)

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Done



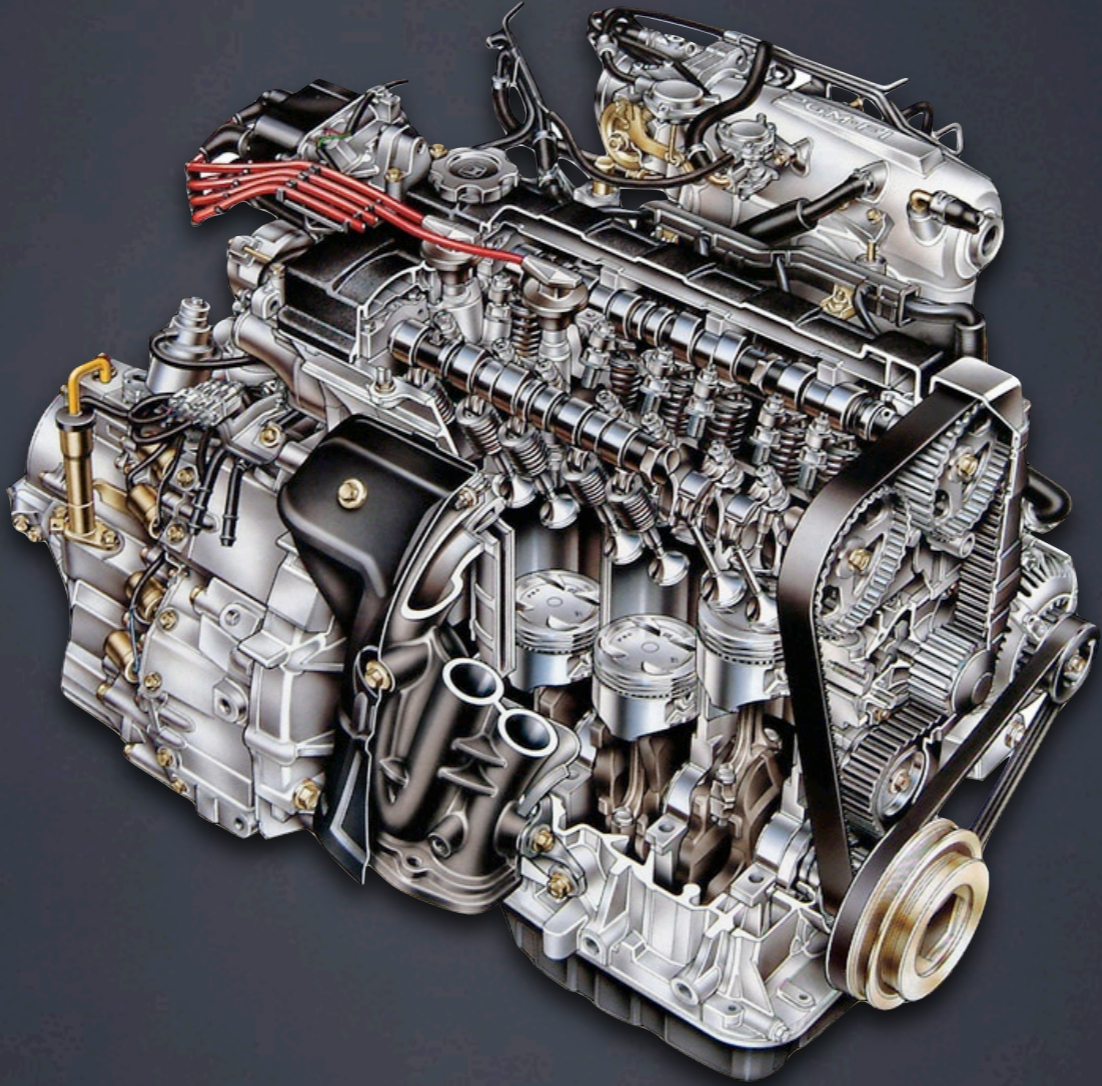
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Be cool to have a series of engines to show that they are getting better



```
var xhr = new XMLHttpRequest();
xhr.onreadystatechange = function() {
    if (xhr.readyState == 4) {
        processChange();
    }
}
xhr.open("GET", "/foo/bar");
xhr.send(null);
```


dōjō

 **jQuery**
write less. do more.

prototype





The Editor of Our Dreams



Accessible from anywhere

Any device in any location



Simple to use, like Textmate

An editor, not an IDE



Wicked fast

Performance, performance, performance



Rock-solid real-time collaboration, like SubEthaEdit

It just works



Integrated command-line, like vi

Fun like Quicksilver, social like Ubiquity



“Self-hosted” environment, like Emacs

For extreme extensibility, but with JavaScript!

Demo of Bepin

Revolutionary Technologies:



Canvas



Fast JavaScript

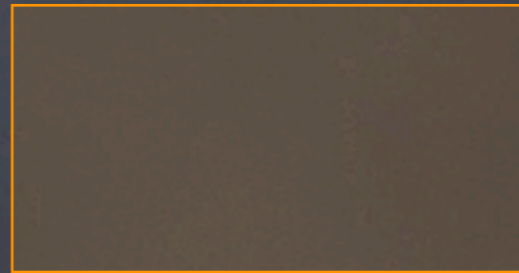


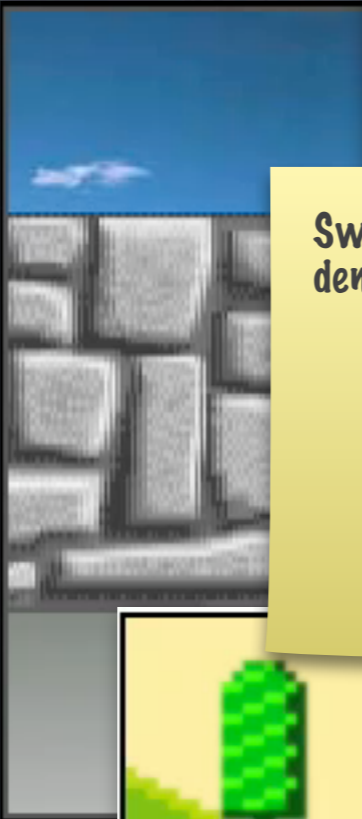
Web Workers



Desktop Integration

Text





Swap out for better demos





No start-up delay



Available on mobile devices today



Rendering fidelity with browser
(especially important for typography)



No bridges necessary



Not a plug-in



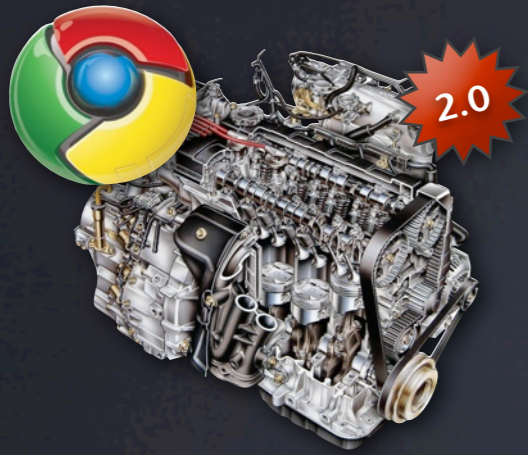


Microsoft®
Silverlight™



**Demo of Bespin's canvas
features**

- editor
- pie menu
- dashboard



Chrome's V8



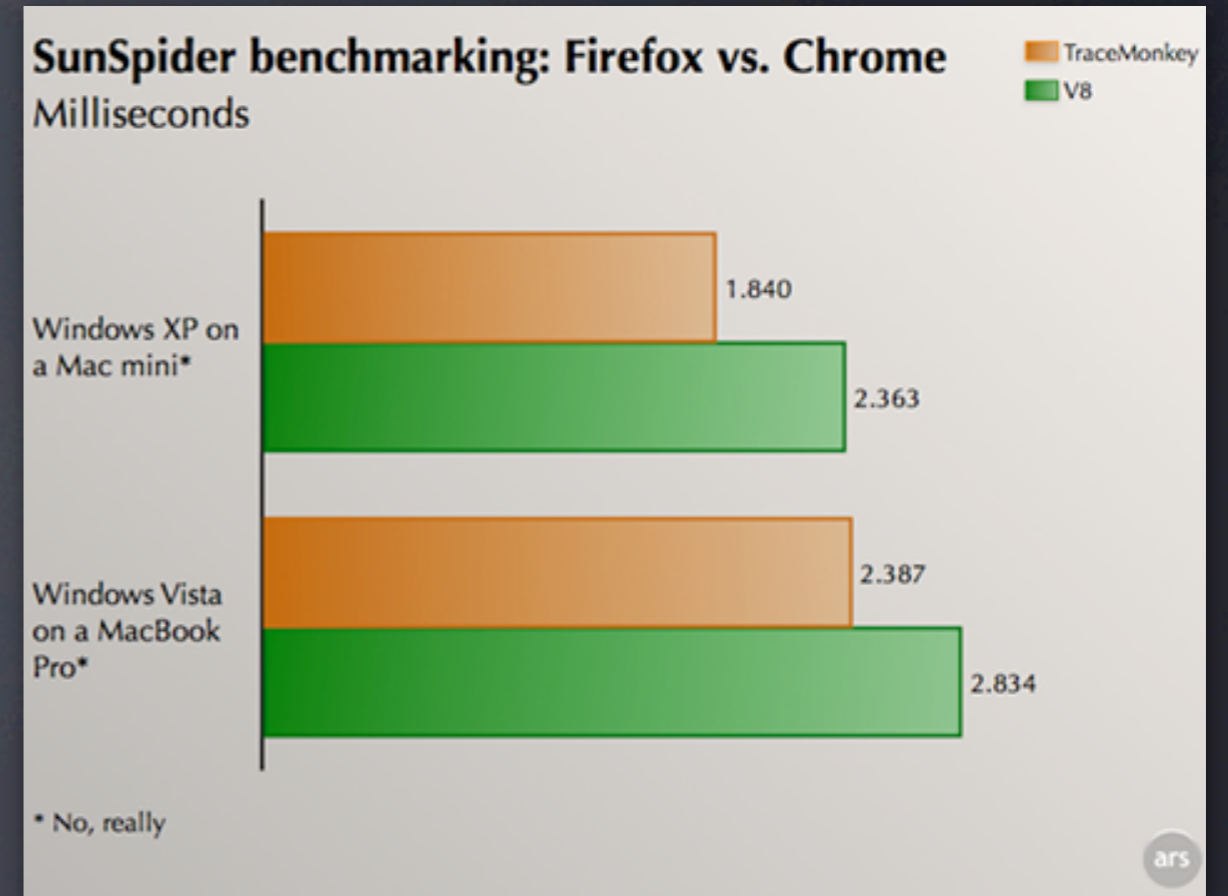
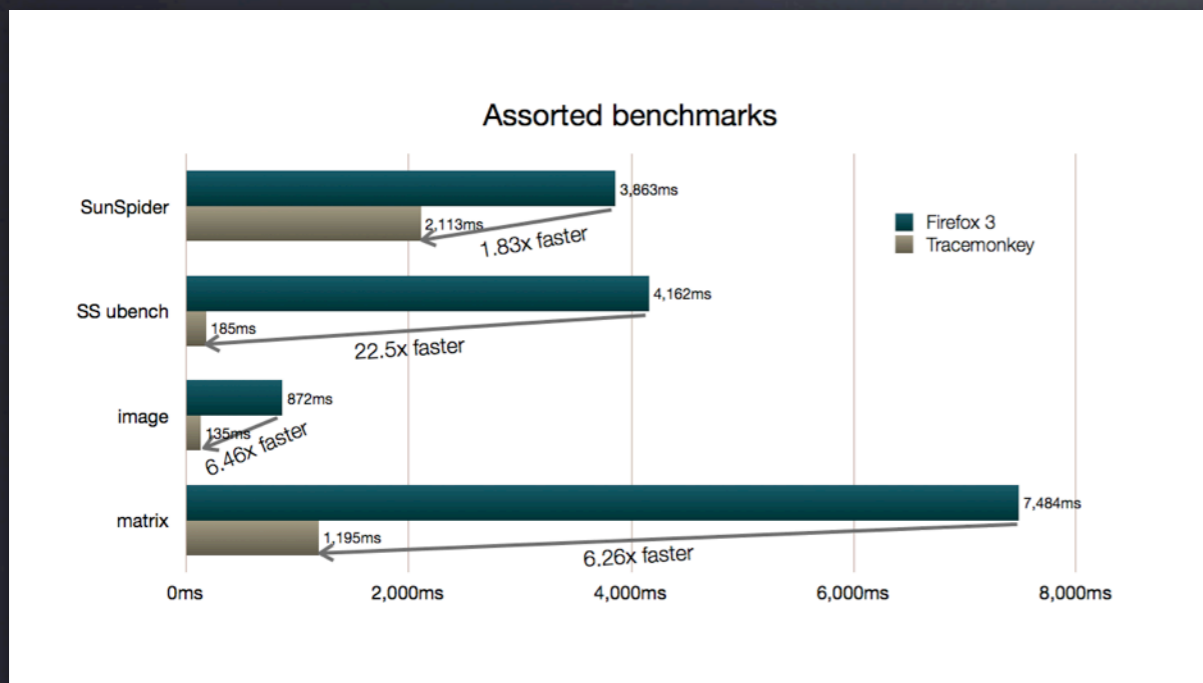
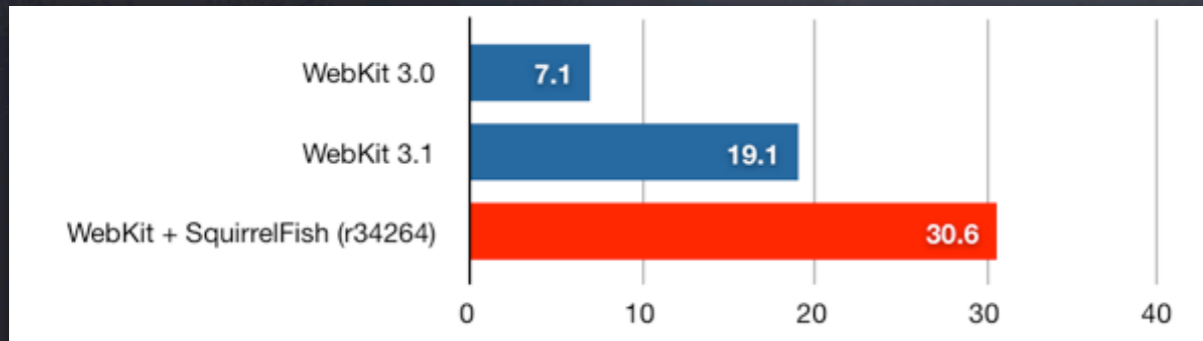
Safari's SquirrelFish Extreme



Firefox's TraceMonkey



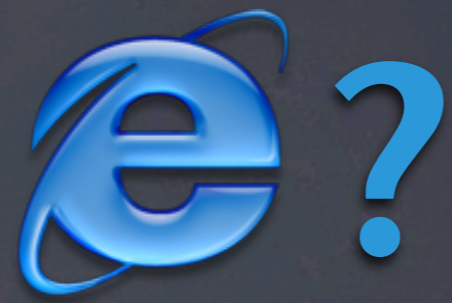
Opera's Carakan



ars

GC slide, focusing on either
(a) generational collection
or (b) garbage collection
as a bottleneck

Maybe compare to JVM
as state-of-the-art run-
time

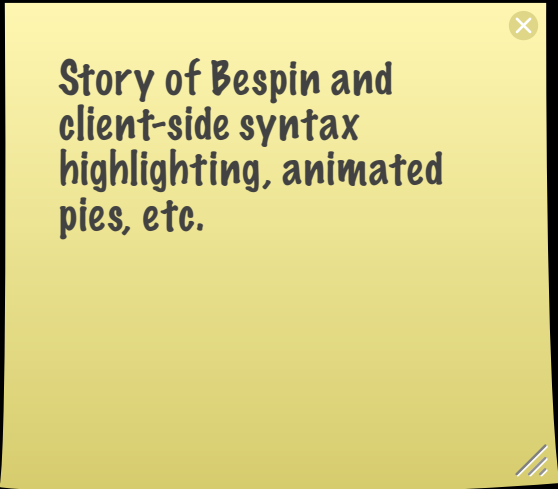


Benchmark Bingo

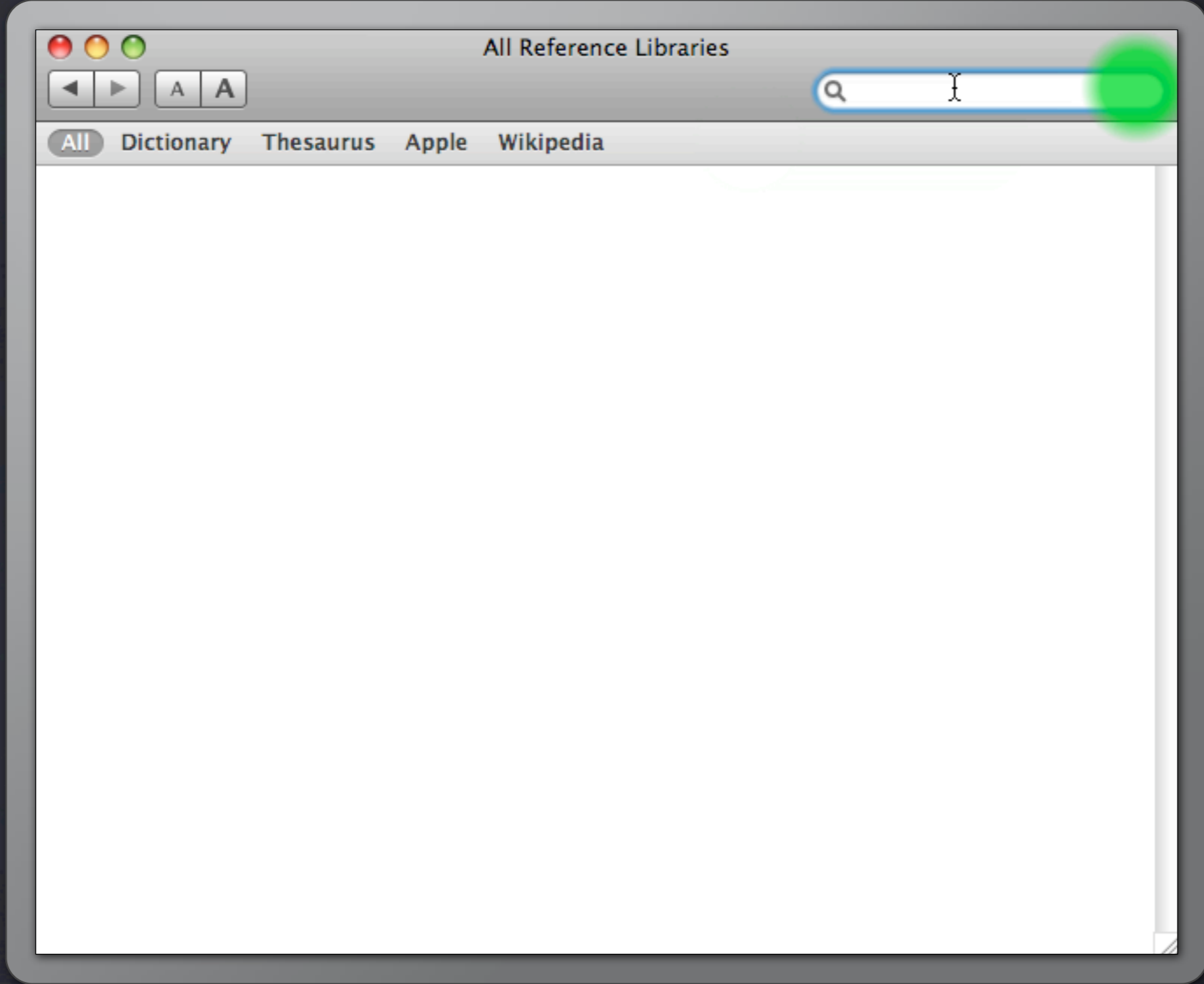
Find an app that uses
fast JS:

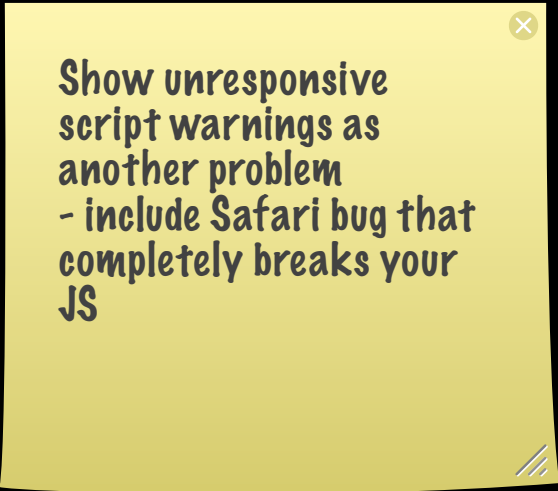
- pixastic?
- our own photo editing
demos

Identify app categories
that benefit from this



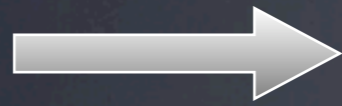
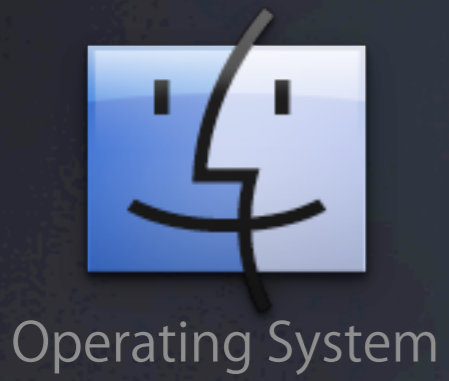
Story of Bepin and
client-side syntax
highlighting, animated
pies, etc.





Show unresponsive
script warnings as
another problem
- include Safari bug that
completely breaks your
JS

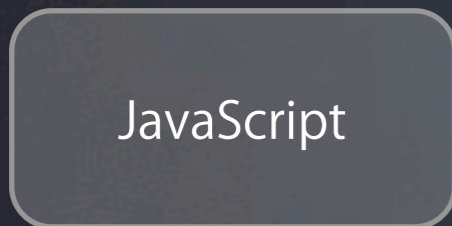
Show the feedback.html
demo



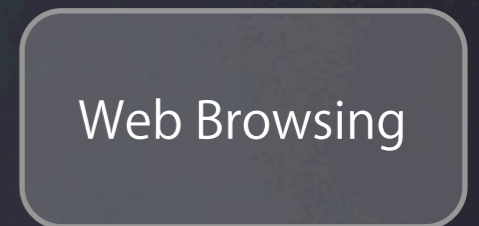
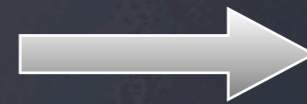
Event Queue



Potential Bottleneck

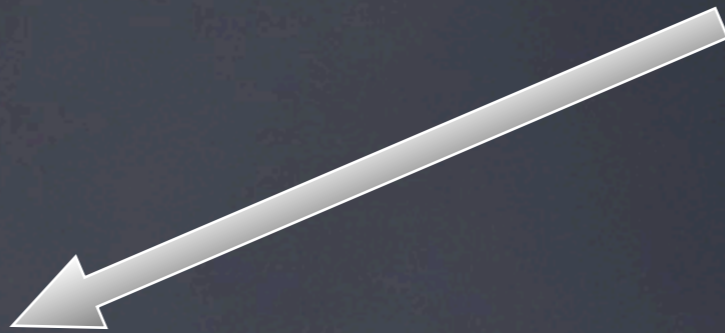


Browser





Browser



User Interface



Background Thread

XMLHttpRequest
(Ajax)

Web Workers





Demo of iPhone canvas
video keyframe
substitution blue screen
whatever thingie

**Demo of client-side web
worker syntax
highlighter in Bepin**

**Talk about lack of sleep()
or yield()**





Fluid



Mozilla Prism



Adobe AIR



Appcelerator Titanium



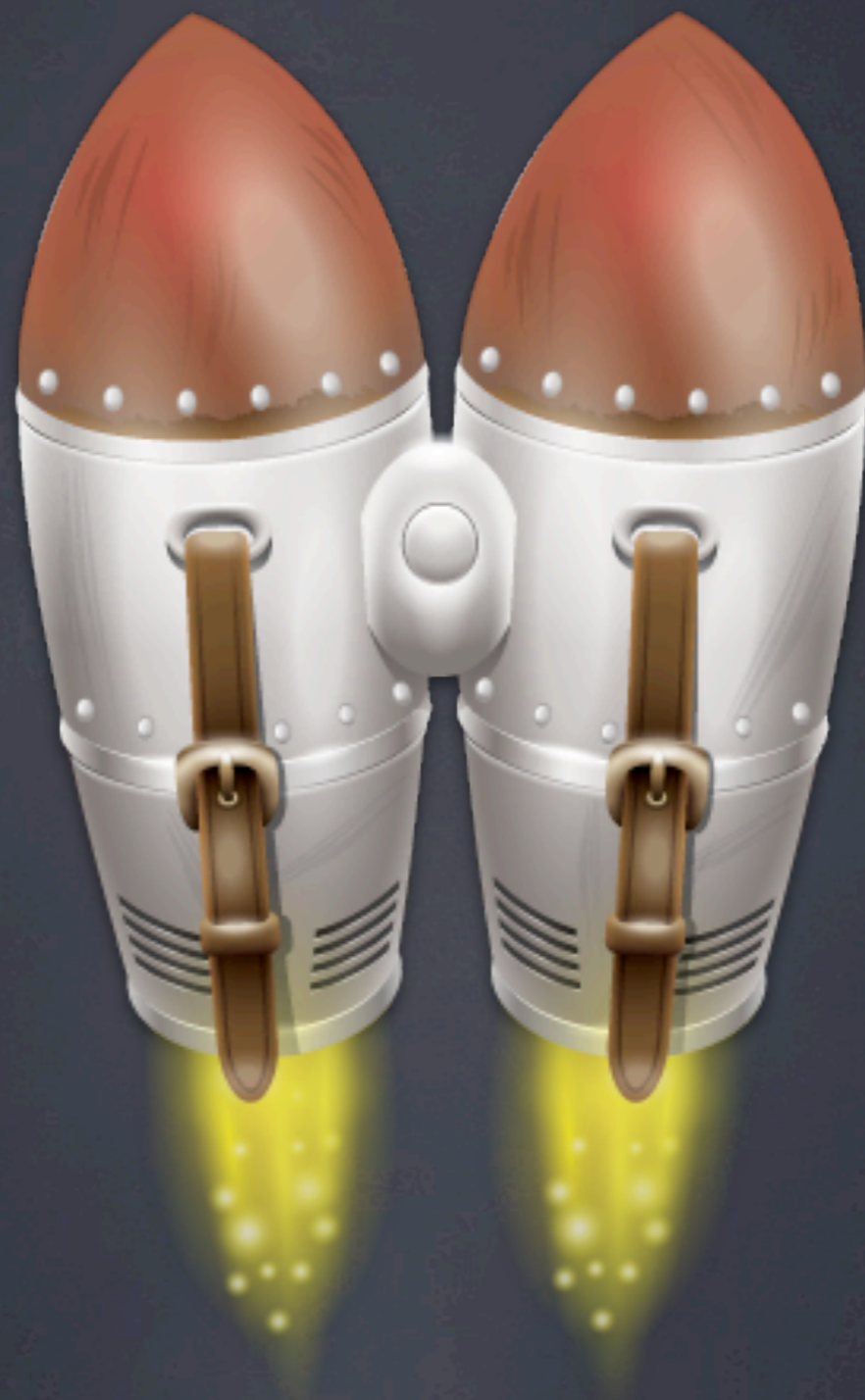
Gears



PhoneGap



mozilla LABS
Jetpack



Demo of Bespin Jetpack
integration

Revolutionary Technologies:



Canvas



Fast JavaScript



Web Workers



Desktop Integration



