Max Firtman @firt

NEW CAPABILITIES OF HTML5 BROWSERS

CODE APP 0856

#QConLondon - March, 7th, 2013

who?

@firt
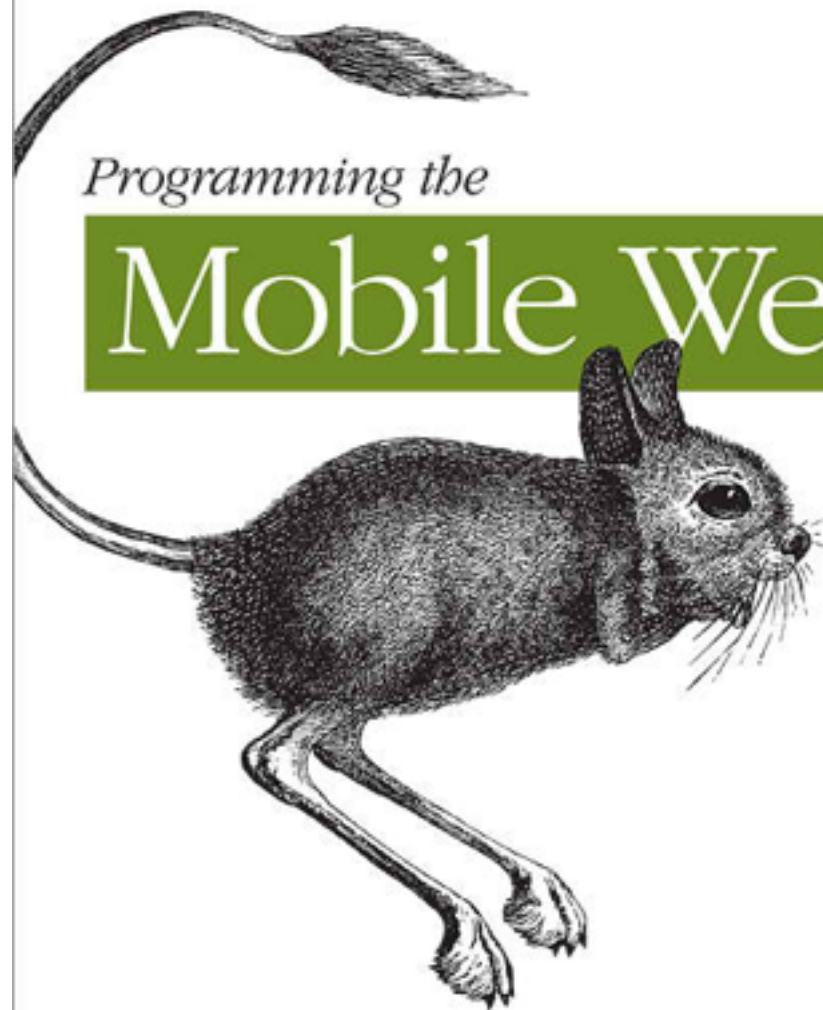
mobile+web developer

where?

Image from my house

Reaching Users on iPhone, Android,
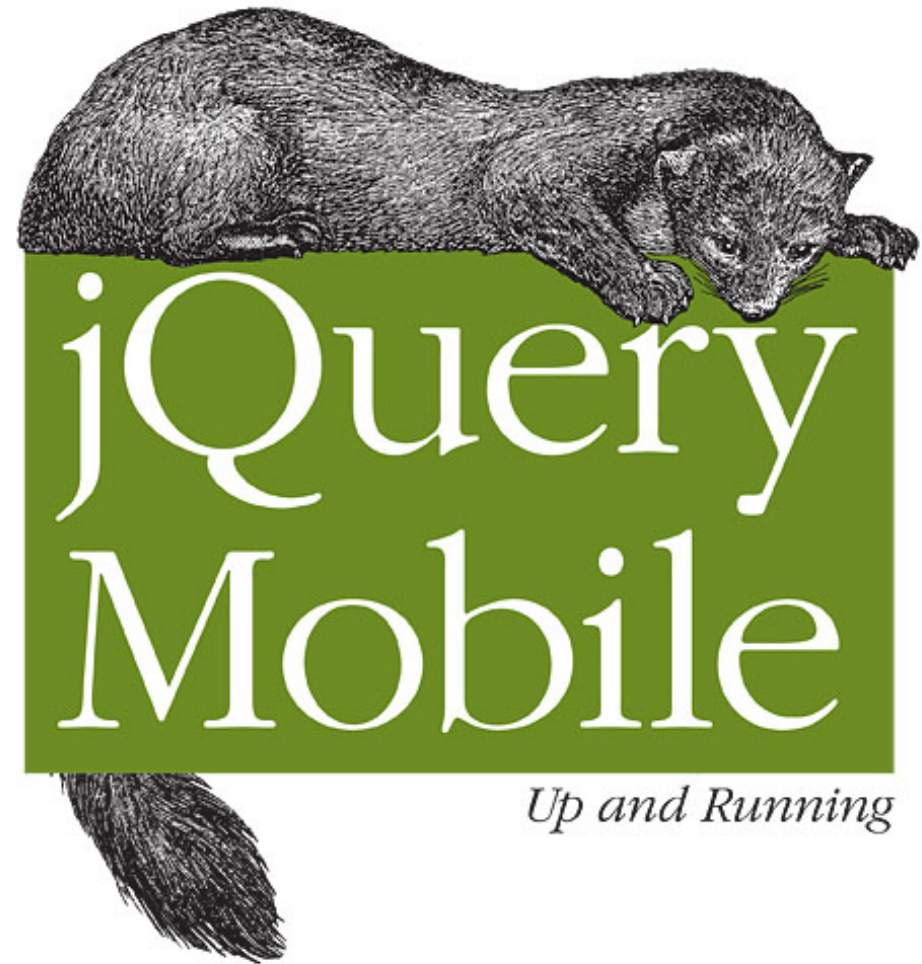BlackBerry, Symbian, and more

Programming the

Mobile Web

O'REILLY®

Maximiliano Firtman

Using HTML5 to Design Web Apps for Tablets and Smartphones

jQuery Mobile

Up and Running

O'REILLY®

Maximiliano Firtman

MOBILE HTML 5

beta, of course

👍0   0   0
Like   +1   Tweet

Do not program conditionals per platform or version. Always use feature detection.

This list is in progress. New tests, new features, more specificity of each feature and more mobile browsers soon!

If you want to help on the test, contact me.

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Trying to understand HTML5 compatibility on mobile and tablet browsers

Feature	Safari on iOS	Android Browser		BlackBerry Browser		Internet Explorer	Opera		Firefox	webOS Browser	Symbian Browser
Version tested	iPhone, iPad	Phones (1.0-2.3)	Tablets (3.0+)	Phones	Tablet	Windows Phone	Mobile	Mini	Android		Nokia phones
Minimum version tested	3.2	1.5	3.0	5.0	1.0	9	11	5	6	1.4	^3
Application Cache — W3C API — Offline package installation.	✓	✓ 2.1+	✓	✓ 6.0+	✓	✓	✓		✓	✓	
Web storage — W3C API — Persistent and session storage.	✓	✓ 2.0+	✓	✓ 6.0+	✓	✓	✓	✓	✓	✓	
Web SQL storage — W3C API (no active) — Persistent SQLite storage.	✓	✓ 2.0+	✓	✓ 6.0+	✓		✓			✓	
Geolocation — W3C API — Geolocation & tracking using GPS, cells or Wi-Fi.	✓	✓ 2.0+	✓	✓ 6.0+	✓	✓	✓		✓	✓	✓
Multimedia — W3C API — Video & Audio Players	✓	✓ 2.3+	✓	✓ 7.0+	✓	✓	✓		✓	✓	✓
Server-Sent Events — W3C API — EventSource pattern to mantain the connection to the server open	✓ 4.1+						✓		✓		
Web Sockets — W3C API — New bidireccional protocol over HTTP	✓ 4.2+			✓ 6.1+	✓		✓		✓		

www.mobilehtml5.org

we'll talk about html5

1- What we can do

2- Web Platforms for 2013

3- Compatibility

4- Tools and solutions

5- New capabilities

mobile

mobile

1- websites

2- apps

1- websites

2- apps

1- websites

MOBILE HTML
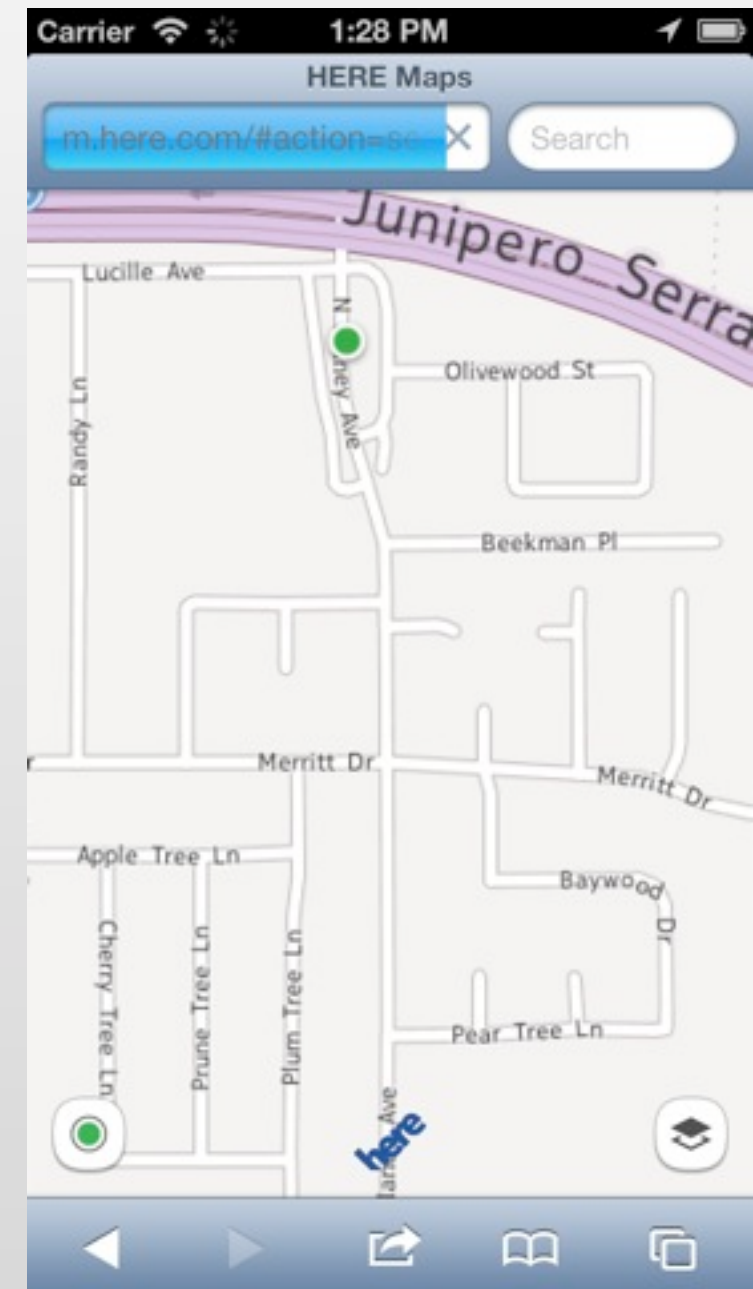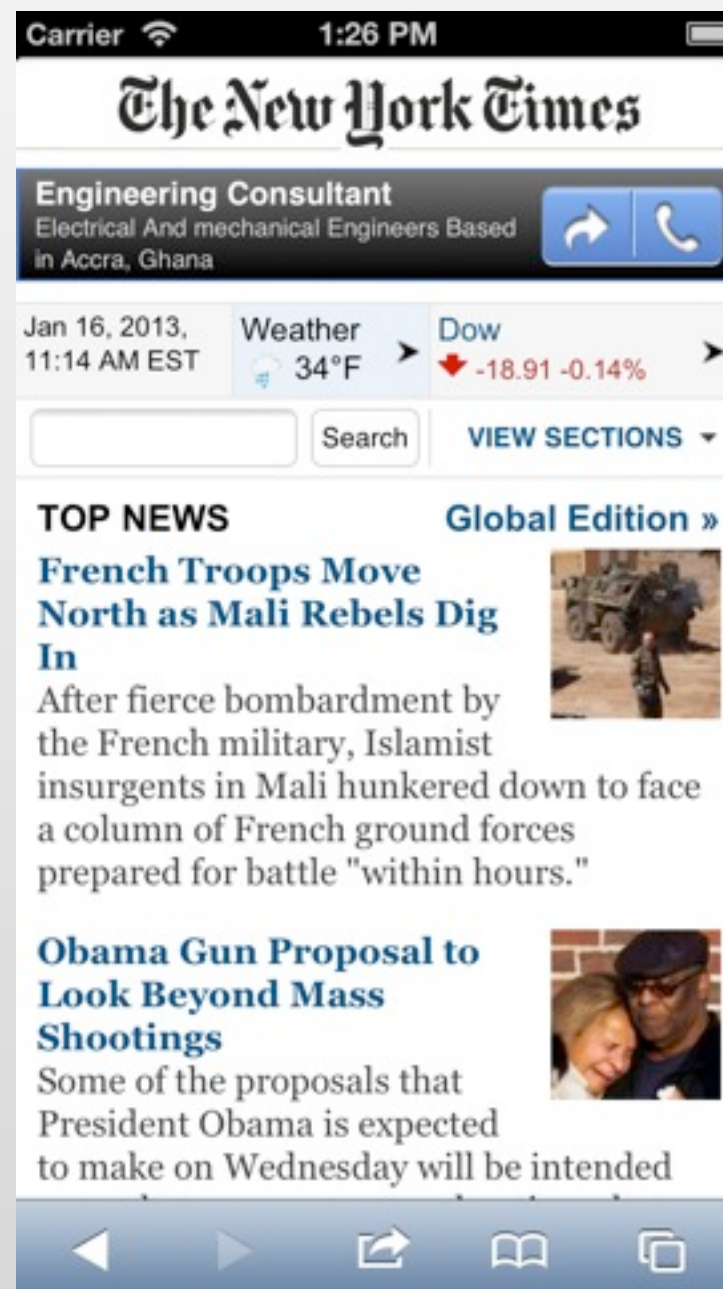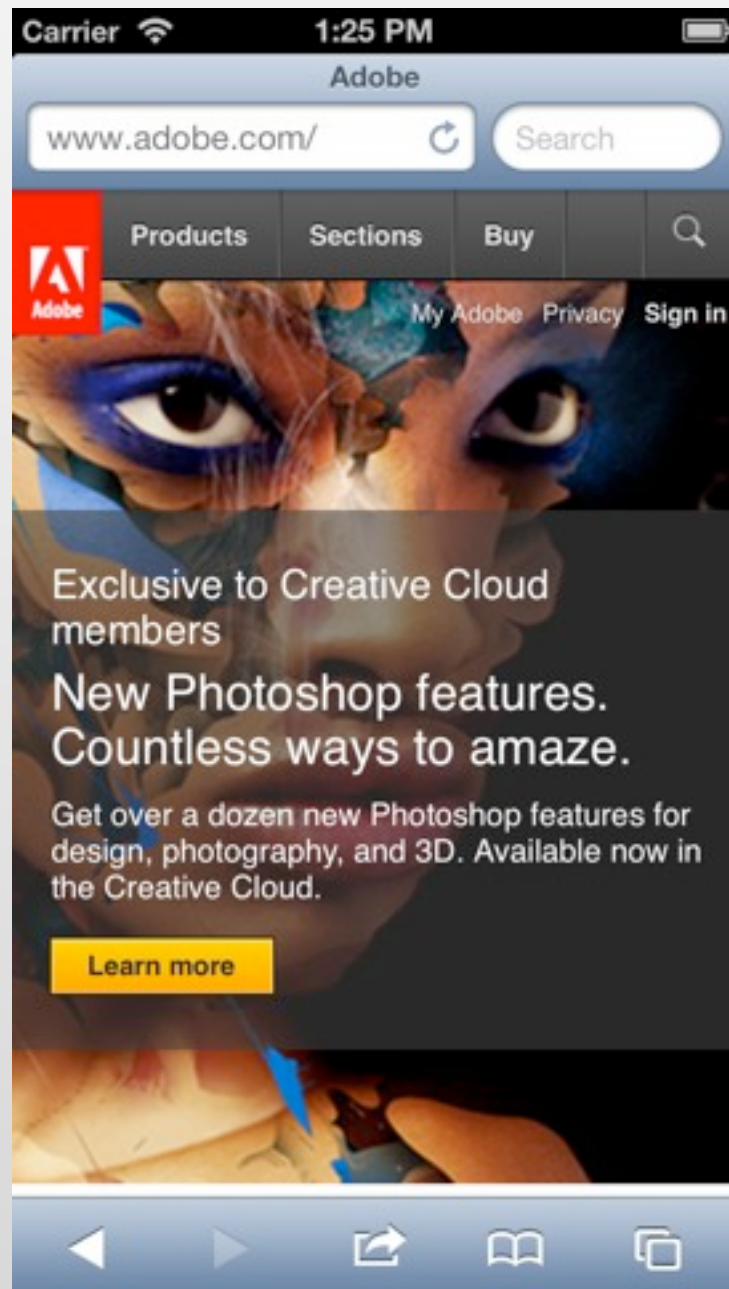
2- apps

with html5
we can create...

we can create

1- websites

1- websites

Using the browser

URL
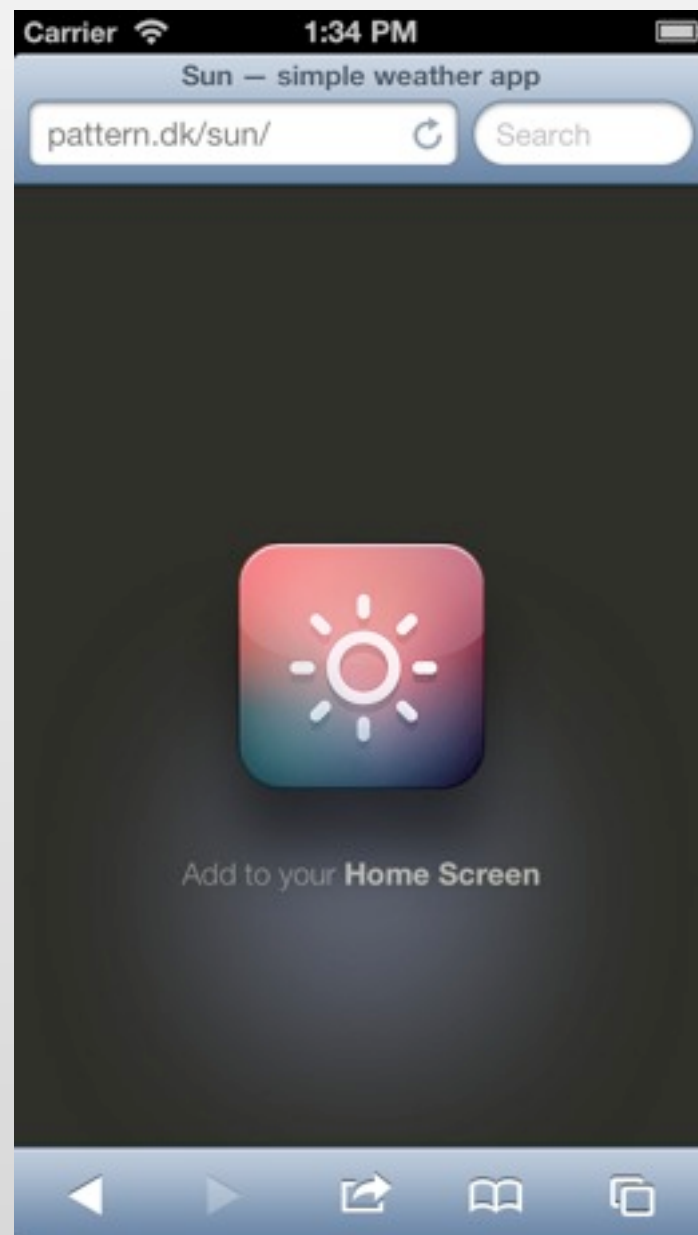
Web Server

we can create

2- webapps

2- webapps

Browser to install

Full-screen

Icon on home screen

Web Server

(webapps are also known as

full screen webapps

home screen webapps)

we can create

3- native webapps

3- native webapps

Package, compile, sign

Icon on home screen

App Store

No web server

(native webapps are also known as

hybrid apps

packaged webapps *)*

1- websites

2- apps

MOBILE HTML

5

beta, of course

1- websites

2- apps

a- native

b- webapps

c- native webapps

web platforms

How many browsers do you know on desktop?

5

How many browsers do you know on mobile?

web platforms

● ● ●

Thursday, March 7, 13
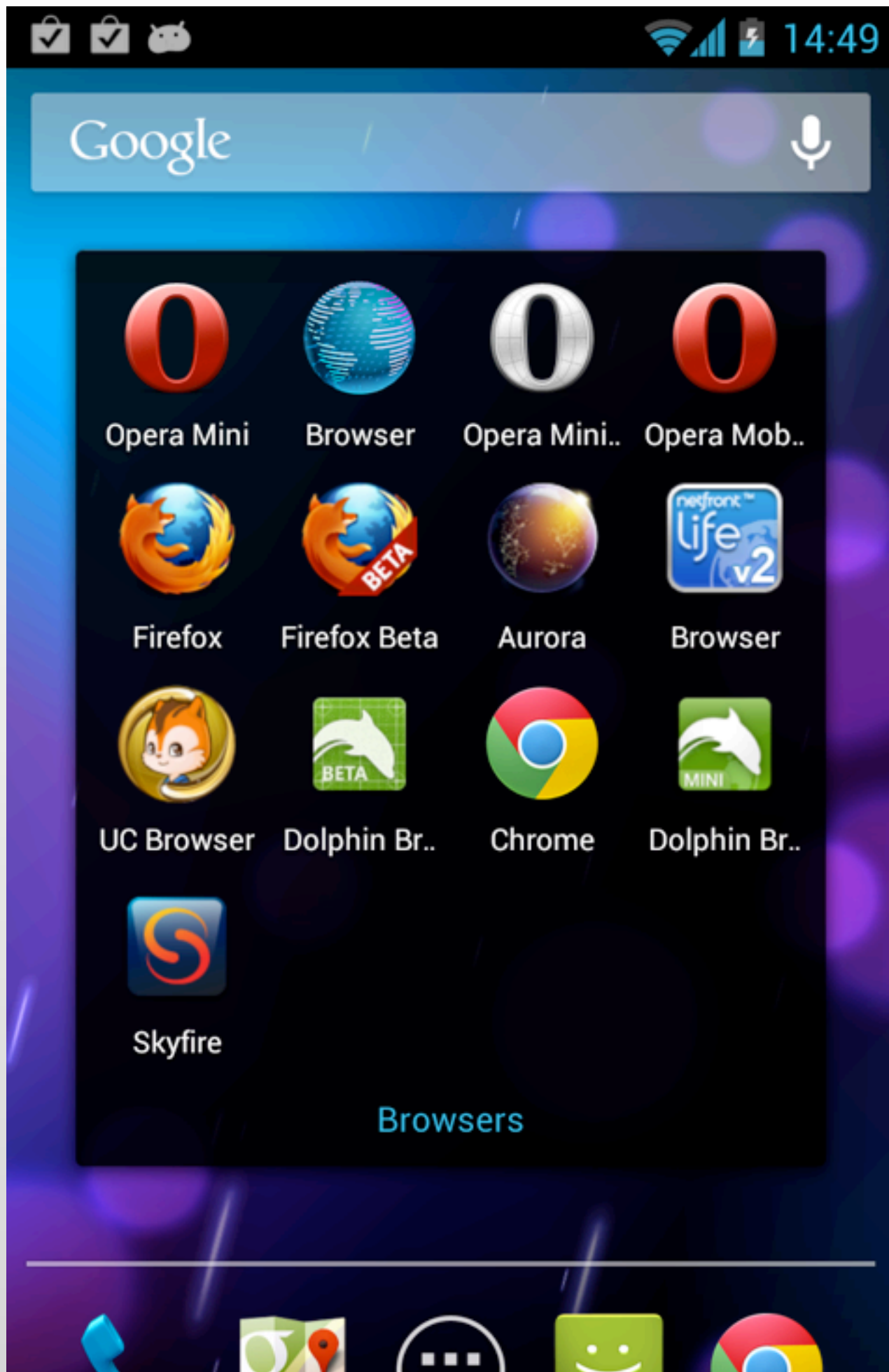
Android Browser

Android Browser 2.2

Android Browser 2.3

Android Browser 4.x

(*Did I mention it is NOT Google Chrome?*)

Google Chrome

Google Chrome Android

Google Chrome iOS

Safari on iOS

Opera

Opera Mobile

Opera Mini

Opera for Android

Firefox

Firefox OS

Internet Explorer

BlackBerry Browser 5-7.x

BlackBerry Browser 5-7.x

BlackBerry Browser PB

BlackBerry Browser BB10

Nokia Browser

Nokia Browser Symbian

Nokia Browser MeeGo

Nokia Browser Series 40

Silk

UC Web

Dolfin

(*should I continue?*)

And it's not just browsers!

Web View

web platforms

Web View

Web View

web platforms

Web View

PhoneGap

APACHE CORDOVA™

- too many

- different versions

- different scenarios

- not just the browser

html5

NO

NO
FLASH

en todo el recorrido

typeof html5 != boolean

Thursday, March 7, 13

MOBILE HTML

beta, of course

👍 0   0   0

f Like   +1   🐦 Tweet

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Web storage W3C API Persistent and session storage.	✓	✓ 2.0+	✓	✓ 6.0+	✓	✓	✓	✓	✓	
Web SQL storage W3C API (no active) Persistent SQLite storage.	✓	✓ 2.0+	✓	✓ 6.0+	✓	✓			✓	
Geolocation W3C API Geolocation & tracking using GPS, cells or Wi-Fi.	✓	✓ 2.0+	✓	✓ 6.0+	✓	✓	✓	✓	✓	
Multimedia W3C API Video & Audio Players	✓	✓ 2.3+	✓	✓ 7.0+	✓	✓		✓	✓	
Server-Sent Events W3C API EventSource pattern to mantain the connection to the server open	✓ 4.1+					✓		✓		
Web Sockets W3C API New bidireccional protocol over HTTP	✓ 4.2+			✓ 6.1+	✓	✓		✓		

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Thursday, March 7, 13

QQVGA
QVGA
WQVGA
FWQVGA
LQVGA
HVGA
nHD

WVGA
FWVGA
VGA
DVGA
WDVGA
QHD
WSVGA
HD

FWXGA
Sq.HD
XGA
WXGA
WUXGA
QXGA
WQXGA

Some features

- safe

- experimental

- with prefixes

help me!

help me!

New tools

help me!

New tools

Remote debugging

help me!

New tools

Emulators

help me!

Best Practices

help me!

Best Practices

Responsive web design

help me!

Best Practices

Progressive enhancement

Internet Explorer wants to be friends on Facebook

🗑 **Facebook** to me

facebook

Internet Explorer
0 friends - late on HTML5 - Please, forgive me!

Confirm Friend Request   **See All Requests**

I don't have an Android or iPhone

help me!

Best Practices

Don't use device detection

help me!

New tools

Best Practices

architecture

HTML
.elements
.canvas
.svg
.webgl

CSS
.basic & adv
.transforms
.transitions
.animations

Platform-specific APIs

UI

Logic

HTML5
.web workers
.touch events

JS

UI

HTML5
.elements
.canvas
.svg
.webgl

CSS3
.basic & adv
.transforms
.transitions
.animations

Platform-specific
APIs

Data

HTML5
- .web storage
- .sql storage
- .indexeddb
- .web sockets
- .server-sent events

AJAX
Asynchronous Javascript And XML.
- .local files
- .remote http
- .xhr 2
- .cors

Logic

HTML5
- .web workers
- .touch events

JS

UI

HTML5
- .elements
- .canvas
- .svg
- .webgl

CSS3
- .basic & adv
- .transforms
- .transitions
- .animations

Platform-specific APIs

Device

HTML5
.geolocation   .uri schemes
.motion   .web audio
.multimedia   .full screen
.webRTC   ...

Platform-specific APIs

Data

HTML5
.web storage
.sql storage
.indexeddb
.web sockets
.server-sent events

AJAX
Asynchronous Javascript And XML

.local files
.remote http
.xhr 2
.cors

Logic

HTML5
.web workers
.touch events

JS

UI

HTML5
.elements
.canvas
.svg
.webgl

CSS3
.basic & adv
.transforms
.transitions
.animations

Platform-specific APIs

new api demos

for the near future

New platforms

help me!

New platforms

Firefox OS

help me!

New platforms

BlackBerry 10

help me!

New platforms

Tizen

help me!

New platforms

Ubuntu for Phones

help me!

New platforms

Chrome apps for Android

help me!

New platforms

Windows 8

New APIs

help me!

New APIs

More webapp platforms

help me!

New APIs

Web RTC

help me!

New APIs

Speech

help me!

New APIs

WebNFC

help me!

New APIs

Web Push Notifications

help me!

New APIs

More hardware access

wrapping up

wrapping up

- html5 is not just about websites

- html5 is not boolean

- Too many platforms

- New tools and Best practices

- New capabilities are there

thank you!

firt.mobi
firtman@gmail.com @firt
www.mobilexweb.com