Introduction to the mobile web

Peter-Paul Koch

http://quirksmode.org

http://twitter.com/ppk

Workshop, 27 August 2014

The 7th mass medium

1. Print (ca. 1500)
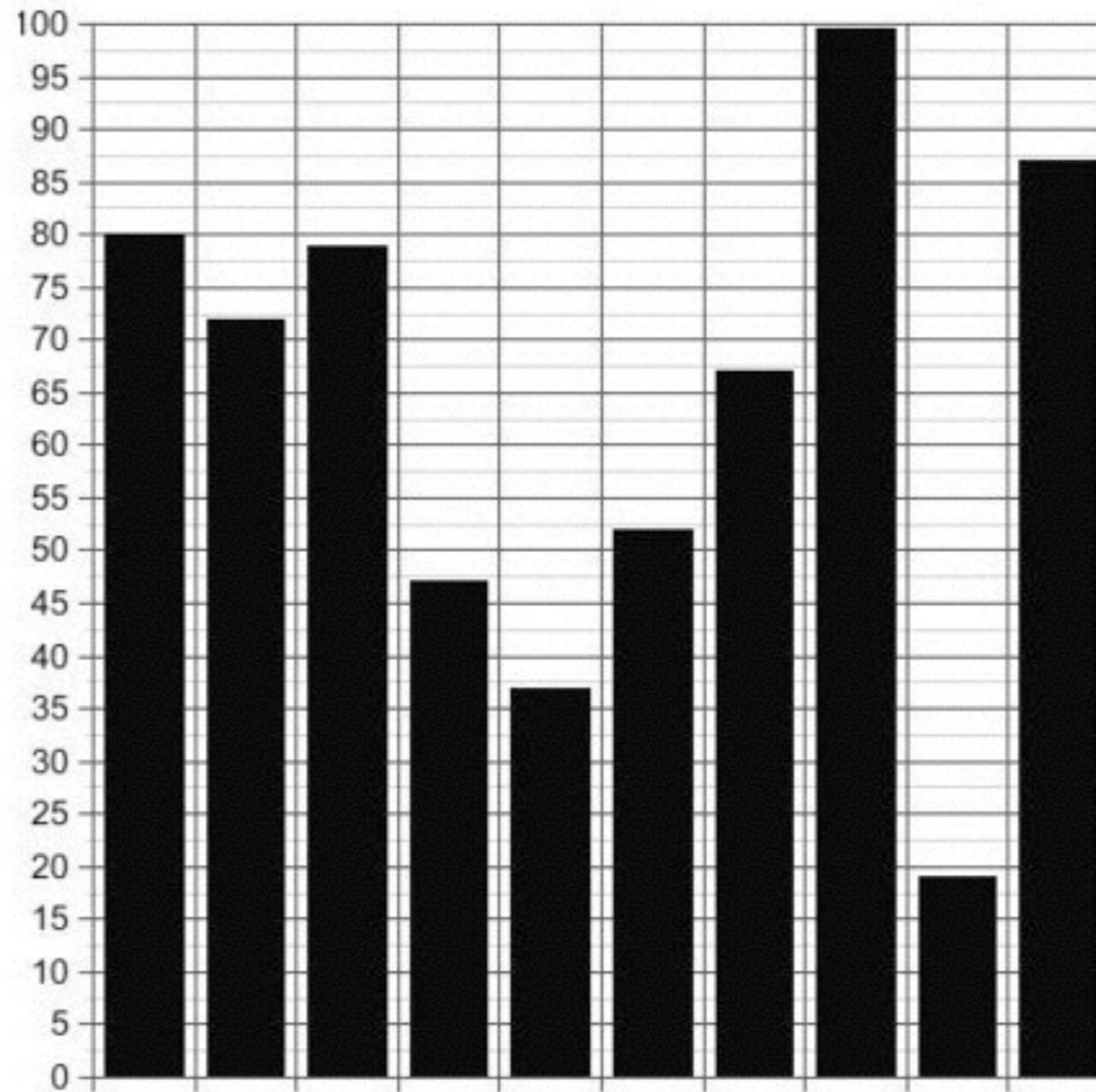2. Recordings (late 19th century)
3. Cinema (ca. 1900)
4. Radio (ca. 1920)
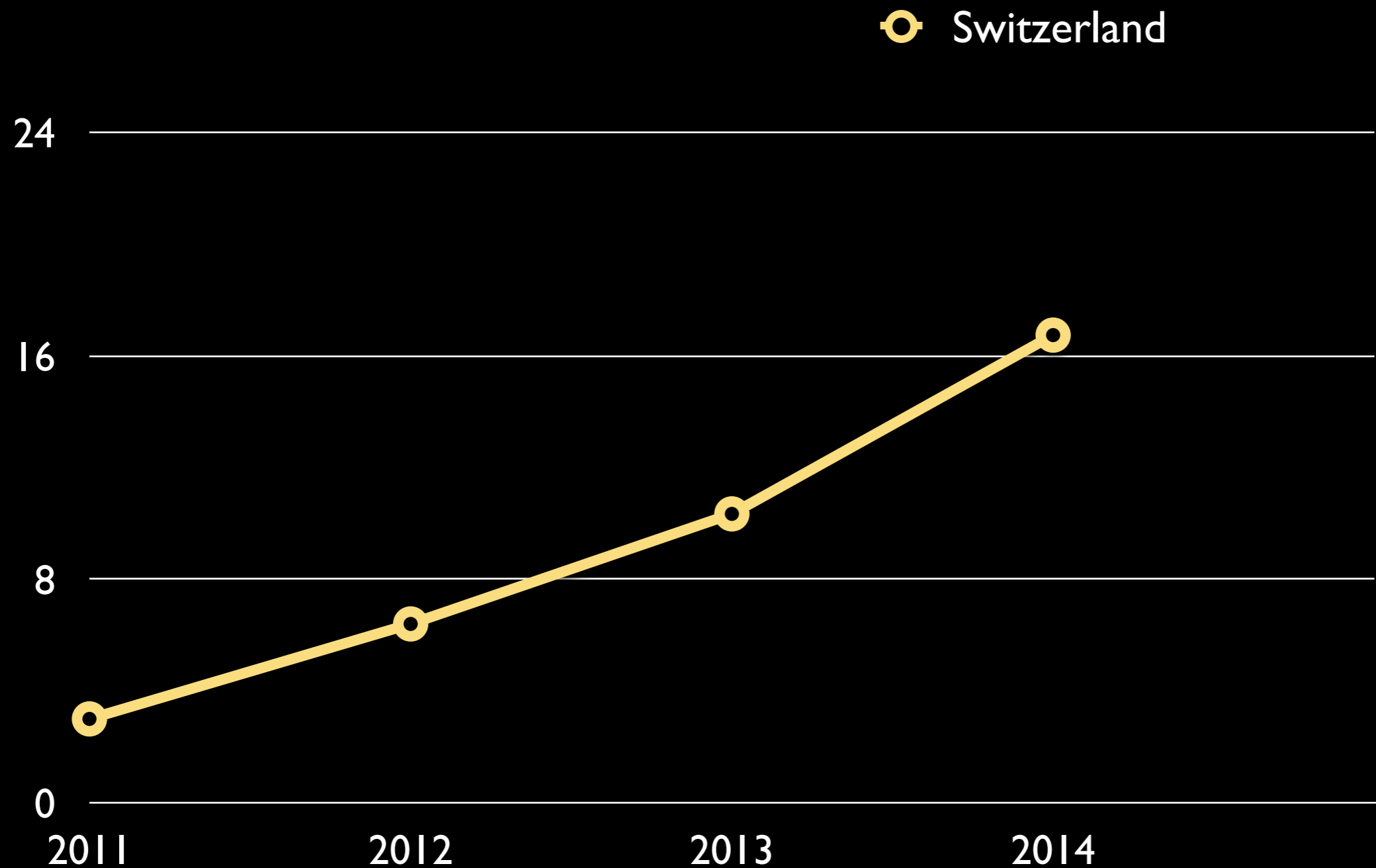5. TV (ca. 1950)
6. Internet (ca. 1990)
7. Mobile (from 2005)

By Tomi Ahonen

I: Mobile stats

Percent Chance That Each Of These Bars Will Reach The Top Of This Graph

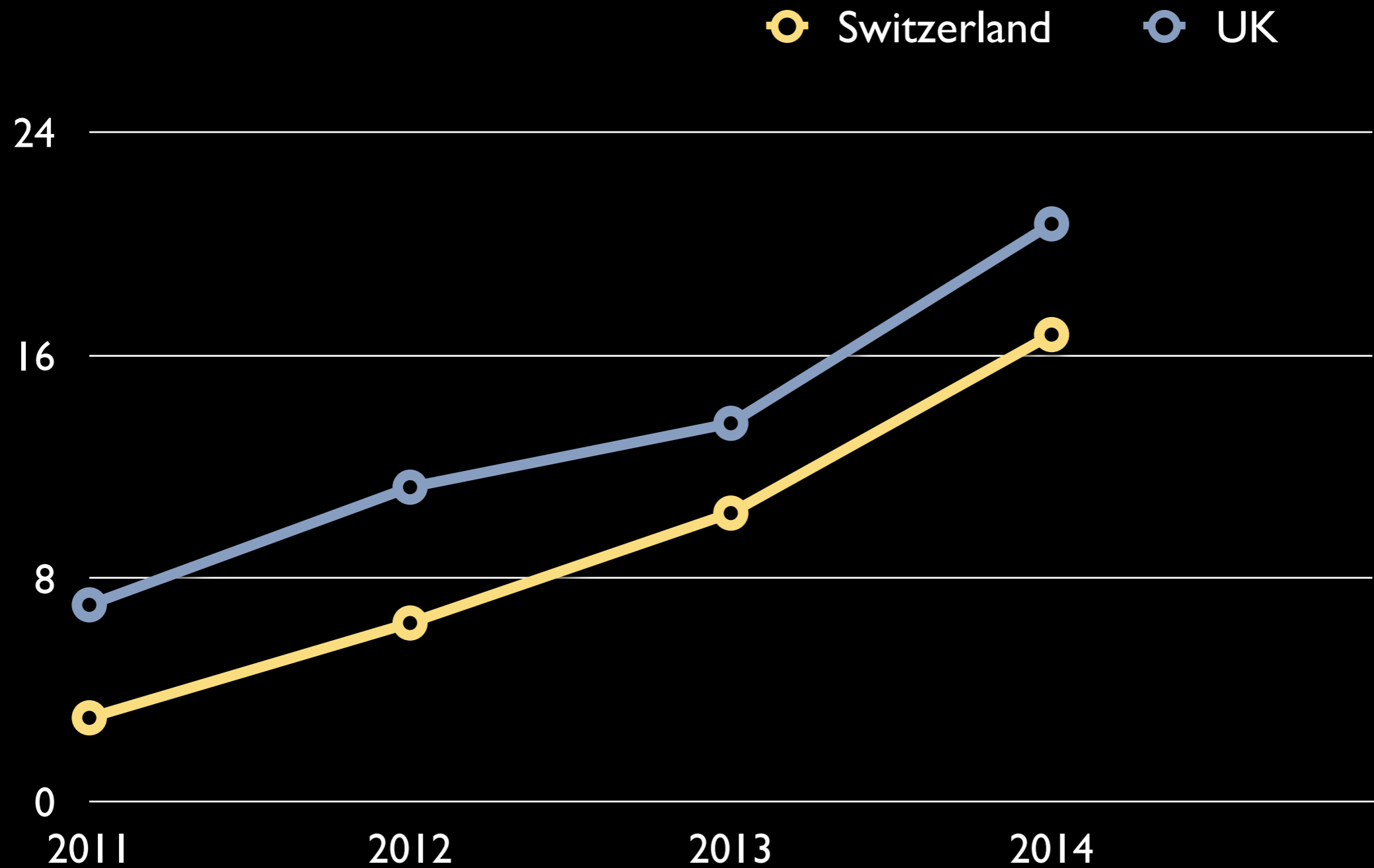©2011 Ben Greenman/Stupid Ideas

Mobile browser share
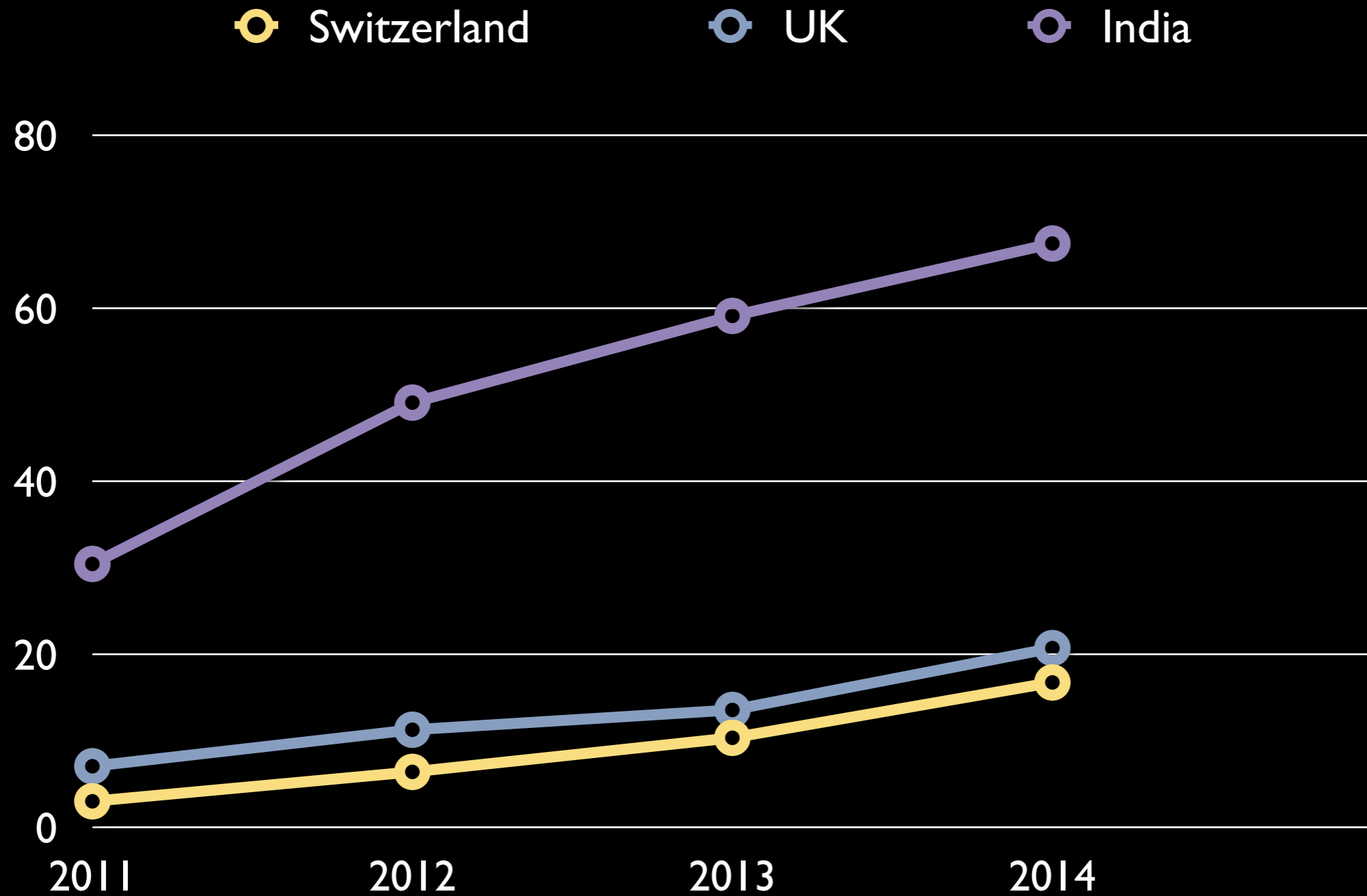

Source: StatCounter.com
Smartphones only; no tablets

Mobile browser share

Source: StatCounter.com
Smartphones only; no tablets

Market shares 2013/4

Sales

- iOS 16%
- Android 78%

Installed

- 6%
- iOS 21%
- Android 66%

Browser

- UC 11%
- Android 25%
- Chrome 17%
- Safari 22%
- Opera 12%
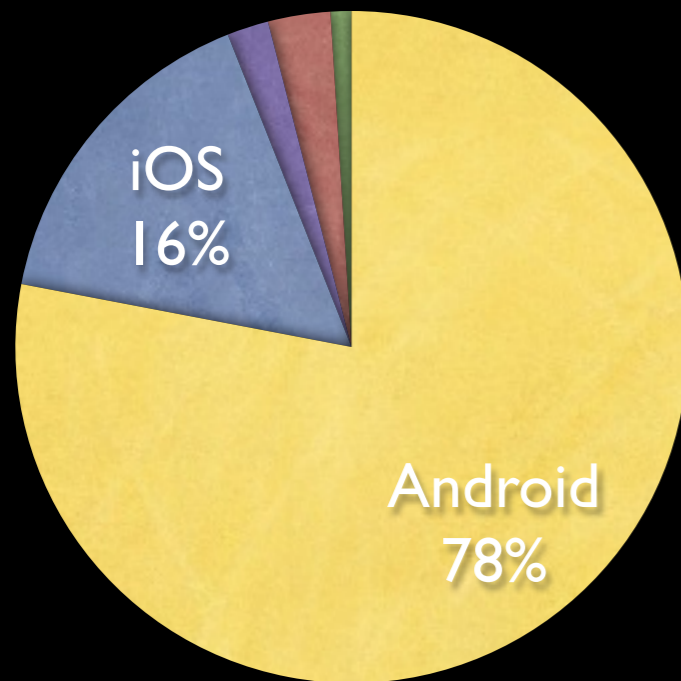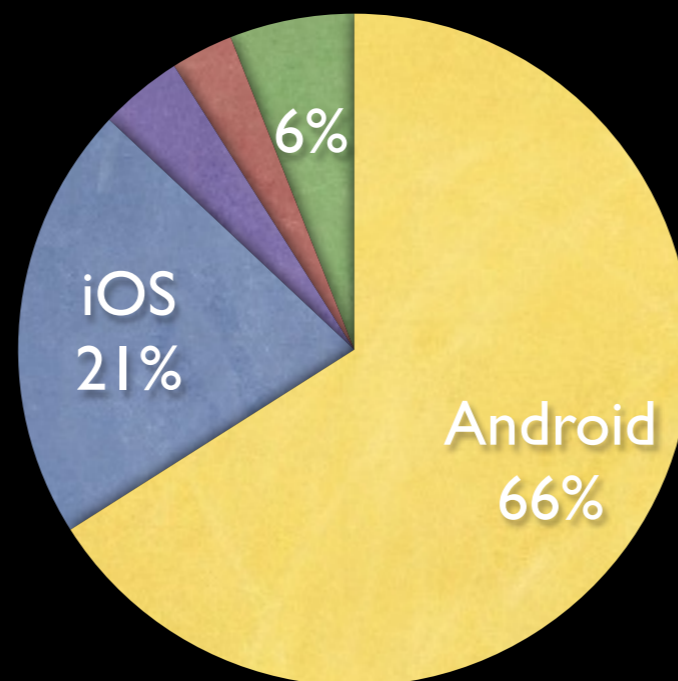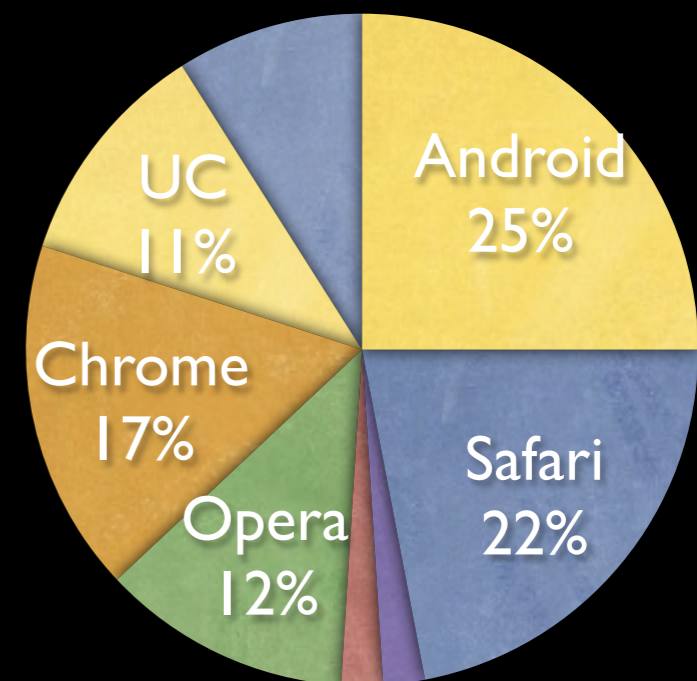
Legend (Sales / Installed)
- Android
- iOS
- Blackberry
- Windows Phone
- Others

Legend (Browser)
- Android
- Safari
- BlackBerry
- IE
- Opera
- Chrome
- UC
- Others

Source: Tomi Ahonen and StatCounter.com

Market shares

- Mobile browser traffic share

- Sales share

- Installed base share

If someone quotes statistics, always think very carefully on what these statistics mean and how important they are to your situation.

Browser share is the most important, since that tells you what your visitors use.

Browser market shares 2014

Global

- Android 25%
- Safari 22%
- Opera 12%
- Chrome 17%
- UC 11%

Switzerland

- Android 18%
- Safari 56%
- Chrome 22%

India

- Others 22%
- Android 12%
- Opera 26%
- UC 34%

Legend:
- Android
- Safari
- BlackBerry
- IE
- Opera
- Chrome
- UC
- Others
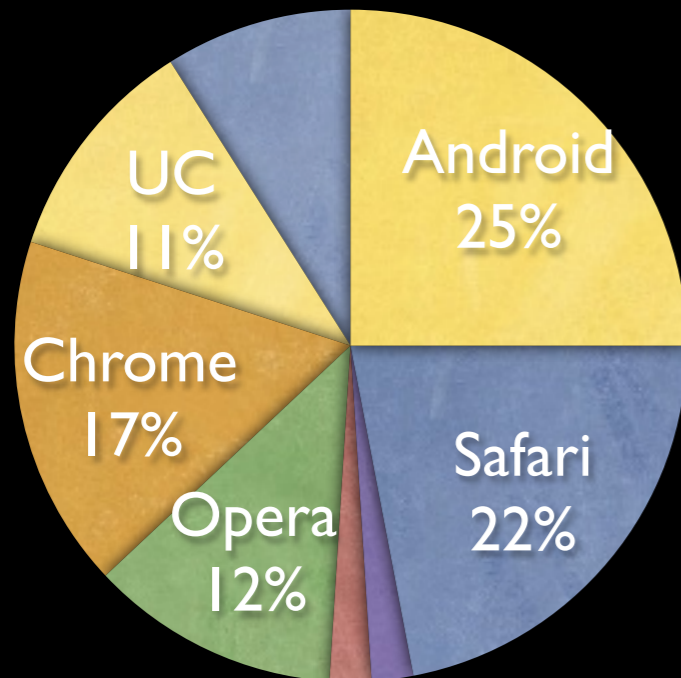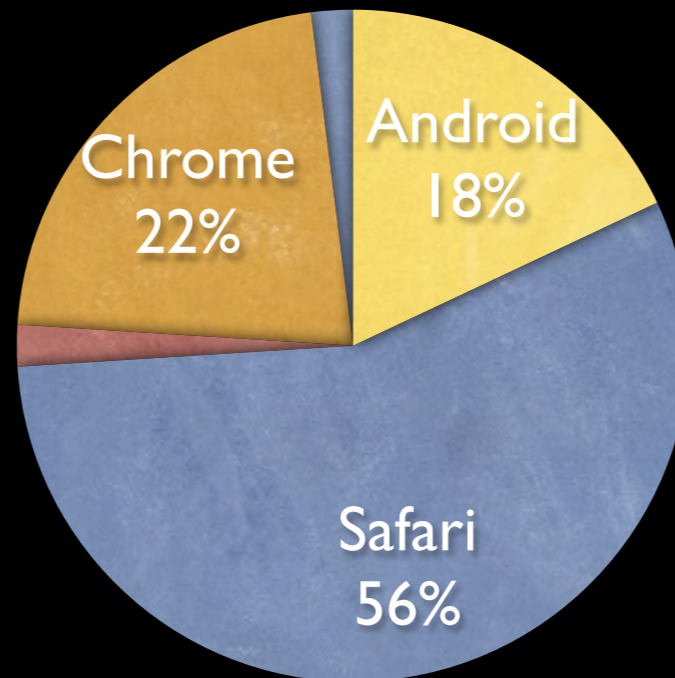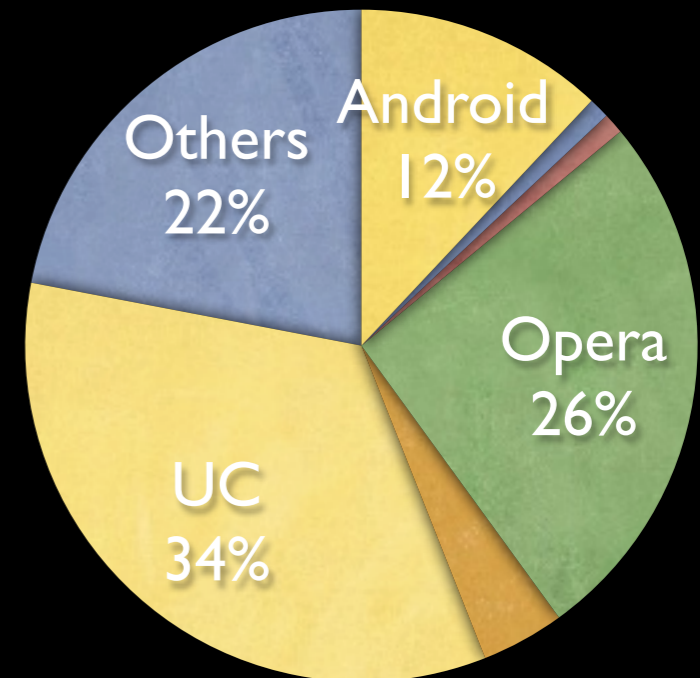
Browser market shares

- Look at your server logs. That's the most important information.

- If you don't have reliable server logs, look at your country's general stats on StatCounter.com

- Use global stats only if all else fails.

II: Android default browsers

Android default browsers

- Originally Android WebKit

- Each device vendor was allowed to modify it

- and they wanted to do so because they want to distinguish themselves from their competitors.

- So we've got HTC Android WebKit, and Samsung Android WebKit, and LG Android WebKit, and … well, you get the idea.

ksMode.org is the prime
vser compatibility inforn
nternet. It is maintained
Koch, mobile platform s
terdam, the Netherlands

ksMode.org is the home
vser Compatibility Table
ll find hype-free assessm
or browsers' CSS and Jav
bilities, as well as their a
W3C standards.

also increasingly the hor

Most browsers do this

QuirksMode.org is the prime source for browser compatibility information on the Internet. It is maintained by Peter-Paul Koch, mobile platform strategist in Amsterdam, the Netherlands.

QuirksMode.org is the home of the Browser Compatibility Tables, where you'll find hype-

HTC Android WebKit does this

Android default browsers

- Google wants Chrome to become the default browser on Android.

- It ceased development of Android WebKit after Android 4.3

- Device vendors can continue to use it, or can switch to Chrome.

Android default browsers

- However

- … device vendors can't change nearly as much in Chrome as in Android WebKit.

- … and Chrome is based on open source

- So: build your OWN Chrome browser!

- Samsung did so from Galaxy S4 on. This is now Samsung Chrome 28.

- Others may follow its example.

Android default browsers

- The situation is clearly not complicated enough.

- Google Services. A package of crucial Google apps such as Maps, YouTube, Play … and Chrome.

- Device vendors may opt in to the entire package. Most did so. (Exception: Amazon)

- This requires them to install Google Chrome on their devices

- but *not* to make it the default browser

Android default browsers

- Thus the Samsung Galaxy S4 and up has two browsers pre-installed:

- Samsung Chrome 28, which is under the "Internet" icon on the home screen

- Google Chrome 36 (and counting), which can be found in the Apps menu

Android default browsers

- Thus the HTC M8 has two browsers pre-installed:

- Android WebKit 4.3, which is under the "Internet" icon on the home screen

- Google Chrome 36 (and counting), which can be found in the Apps menu

Test each new Android carefully

Android default browsers

- Android WebKit's UA string does not have "Chrome" in it.

- Chrome's UA string does have "Chrome" in it.

- … but that doesn't necessarily mean it's *Google* Chrome. It might be another Chrome entirely.

III: Proxy browsers

Proxy browsers

- A proxy browser leaves the fetching and rendering of resources to a server.

- The client receives a compressed bitmap.

- Advantage: cheap device and low data costs

- Disadvantage: no client-side interaction. Every JavaScript call requires a server request.

Proxy browsers

- Opera Mini (Presto)

- UC Mini (Gecko)

- Nokia Xpress (Gecko)

IV: Mobile First!

Mobile First!

- It's a design philosophy, and not technical trick.

- Design your sites for mobile first.

- You'll be forced to decide what is so important that it MUST be shown in the mobile device's tiny display.

- The things you leave out of the mobile version don't really need to be in the desktop version, either.

Invented by Luke Wroblewski

Mobile First!

- Make a list of features and items that are on your current homepage. This includes navigation.

- Make choices!

- Remove at least half of them by asking yourself what's most important for your users. You should end up with three or four features.

Mobile First!

- Navigation: usually it's best to put it at the bottom of the mobile page.

- This is called a "pivot point": when the user has read through the current page, she wants to know what else she can do on the site. Then a navigation is useful.

- Don't put it at the top, except maybe for one or two vital links.

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Mobile is becoming increasingly important to web designers and developers because users expect a site to work on their phones. Simultaneously, the web is becoming increasingly important to the mobile world because it is the only way to deploy an application to any phone.

Nowadays most web conferences feature a mobile session, and most mobile conferences a web session. The obvious next step is Mobilism: a conference wholly dedicated to mobile web design and development.

Just like in 2011 we'll invite some of the best speakers from the web development and the mobile world to guide you through the confusing jumble of platforms, screen sizes, and browsers that is the mobile ecosystem.

Join our mailing list

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Recent posts (RSS)

- Fast Track announced; session descriptions available, 13-03-2012
- James Pearce announced, 06-03-2012
- Heiko Behrens announced, 28-02-2012
- Workshops announced, 21-02-2012
- Remy Sharp announced, 14-02-2012

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Mobile First!

- So this is really for designers - graphic and UX

- And secretly it's not only about mobile, but about websites on all devices.

- And you can also use it for native apps; the questions are the same; you just implement the answers in another programming language.

V: Mobile context

Eight unique abilities

1. Personal
2. Permanently carried
3. Always on
4. Built-in payment mechanism
5. Available at creative inspiration
6. Accurate audience measurement
7. Captures social context of media consumption
8. Augmented reality

By Tomi Ahonen

Mobile context

We know one thing: context does not depend on your device, but on your situation.

- User wants to catch a train

- Mobile device sees he's at the station

- Mobile device offers departure times and platforms so that user can see them at once.

Mobile context

We know one thing: context does not depend on your device, but on your situation.

- ~~User wants to catch a train~~

- ~~Mobile device sees he's at the station~~

- ~~Mobile device offers departure times and platforms so that user can see them at once.~~

Unfortunately this is nonsense. It's much more complicated.

Mobile context

"What was formerly the 'mobile context' is becoming increasingly difficult to define. Context can't predict the way a user is going to use the site."

Luke Wroblewski

Mobile context

"What was formerly the 'mobile context' is becoming increasingly difficult to define. Context can't predict the way a user is going to use the site. Mind reading is no basis for fundamental content decisions."

Luke Wroblewski

Mobile context

We don't know yet what the context of web site use on a mobile device is.

Just as TV copied radio, and early websites copied print,

we're copying the desktop web, adjusted for smaller screen size, to mobile.

Are we right? Are we wrong?

Mobile context

And even if we correctly define the mobile usage context

what about the tablet usage context?

And cars?

And TV?

And refrigerators?

Device lab

- Save about $100 per month. That allows you to buy two high-end or 6 mid-range devices per year

- Buy a non-iPhone, non-Android, a non-touchscreen

- Buy an Android from a different vendor, with a different screen size and Android version

- Swap devices with other companies or freelancers in your area and coordinate with them when buying new devices

- Visit (or found) an open device lab

- Test in shops and stores