Testing ubiquitous computing
Testing mobile applications & devices

10 May, 2011
Eddy Bruin

Who am I?

Informatiekunde

INGM

Usability

DJ

Work@Capgemini

Android   EddyBruin

HumanCenteredMulitmedia

Testforce

MobileApps

Capgemini   Voetbal

ING

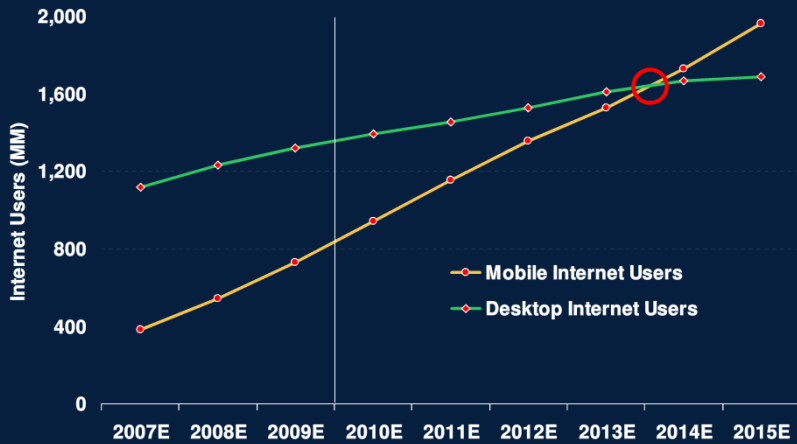CloudComputing

TestConsultant

Table of contents

The web is dead! Long live the internet

Mobile Users > Desktop Internet Users Within 5 Years

Global Mobile vs. Desktop Internet User Projection, 2007 – 2015E
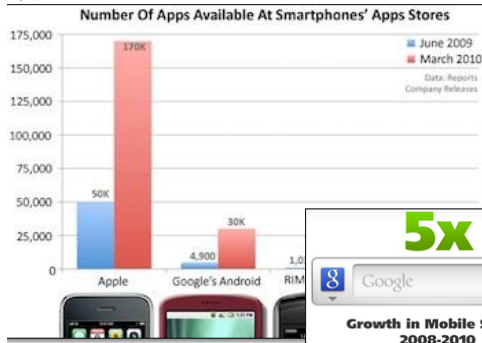

More Cell Phone Owners Use an App for That

59% of All Adult Americans Go Online Wirelessly

July 7, 2010

Young adults lead the way in the use of mobile data applications

Mobile Devices
November 2010

OS	%
iPhone	38.9
iPad	22.8
Android	12.7
Blacberry	9.6
iPod	7.2
SymbianOS	6.9
Windows	0.9
Samsung	0.4
Overig	0.4
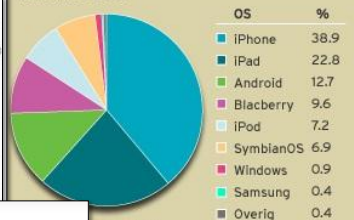
"But those who ignore the drumbeat for mobile do so at considerable risk: No presence on mobile devices in 2009 or 2010 is equivalent to no Web site circa 1999 or 2000."

Julie A. Ask, Charles S. Golvin, Michelle de Lussanet, Laura Wiramihardja, Mobile Technographics* — Understanding Mobile Phone Usage Is The Foundation Of A Mobile Strategy, Forrester Research, April 16, 2009

5

3

Mobile statistics in the Netherlands
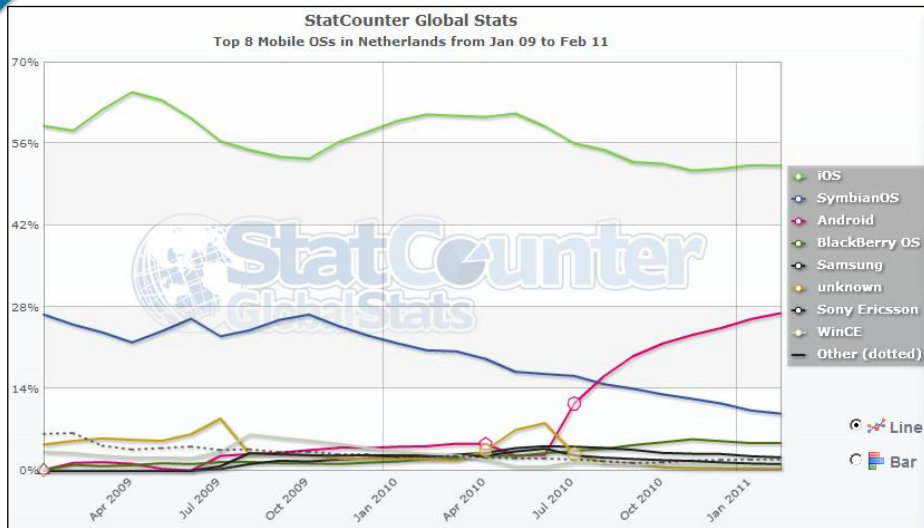
StatCounter Global Stats
Top 8 Mobile OSs in Netherlands from Jan 09 to Feb 11

What is ubiquitous computing?

• **Definition:** Ubiquitous computing is a **post-desktop model** of human-computer interaction in which information processing has been thoroughly integrated into **everyday objects and activities.** In the course of ordinary activities, someone "using" ubiquitous computing engages **many computational devices and systems simultaneously**, and **may not necessarily even be aware that they are doing so**. This model is usually considered **an advancement from the desktop paradigm.**

Example of an ubiquitous environment
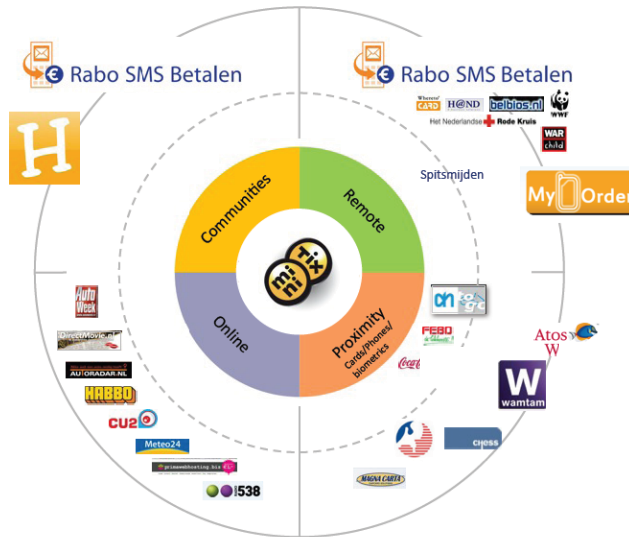
8

Apps & New possibilities

9

What's in it for software testing?

17-jarige jongen oorzaak aanval op Twitter

Uitgegeven: 22 september 2010 11:38
Laatst gewijzigd: 22 september 2010 11:58

The Tale of the Android App that Crippled T-Mobile's Network

by Kevin Krause on October 20th, 2010

KPN getroffen door UMTS-storing in regio Amsterdam

Uitgegeven: 16 september 2010 15:04
Laatst gewijzigd: 17 september 2010 09:25

AMSTERDAM - Enkele tienduizenden klanten van KPN in de regio Amsterdam hebben donderdag last gehad van een storing in het UMTS-netwerk van de provider.

Beveiligingsbedrijf toont lekken in smartphonesoftware

Door **Joost Schellevis**, donderdag 1 juli 2010 17:20, views: 15.701

Facebook plugs friends list mobile leak

Lek in Facebook maakte gevoelige locatiegegevens beschikbaar

Uitgegeven: 2 oktober 2010 10:39
Laatst gewijzigd: 2 oktober 2010 11:46

OV-chipkaart volledig gekraakt

Door: De Pers
Gepubliceerd: maandag 10 maart 2008 11:28
Update: maandag 10 maart 2008 15:34

De Duitse hackers die eerder de ov-chipkaart deels wisten te kraken, hebben de kaart nu volledig gehackt. De reistegoeden van reizigers kunnen zo gestolen worden.
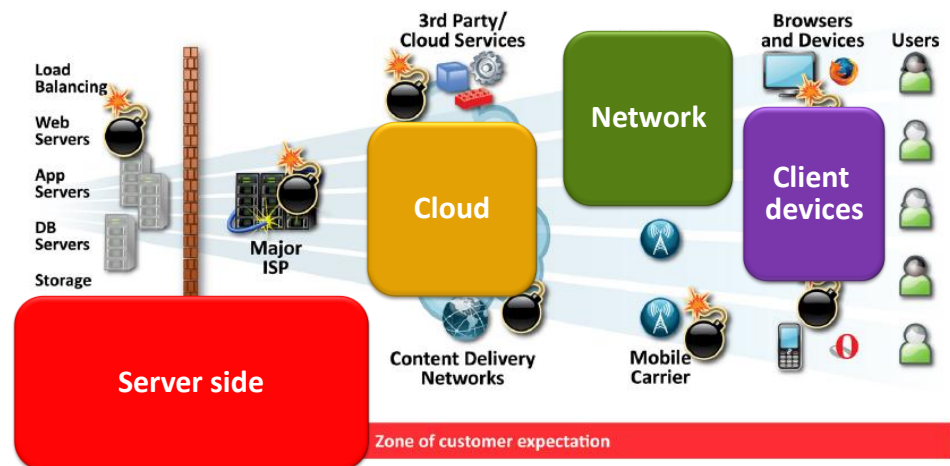

Risk Areas in developing a web/native application

The Web Application Delivery Chain
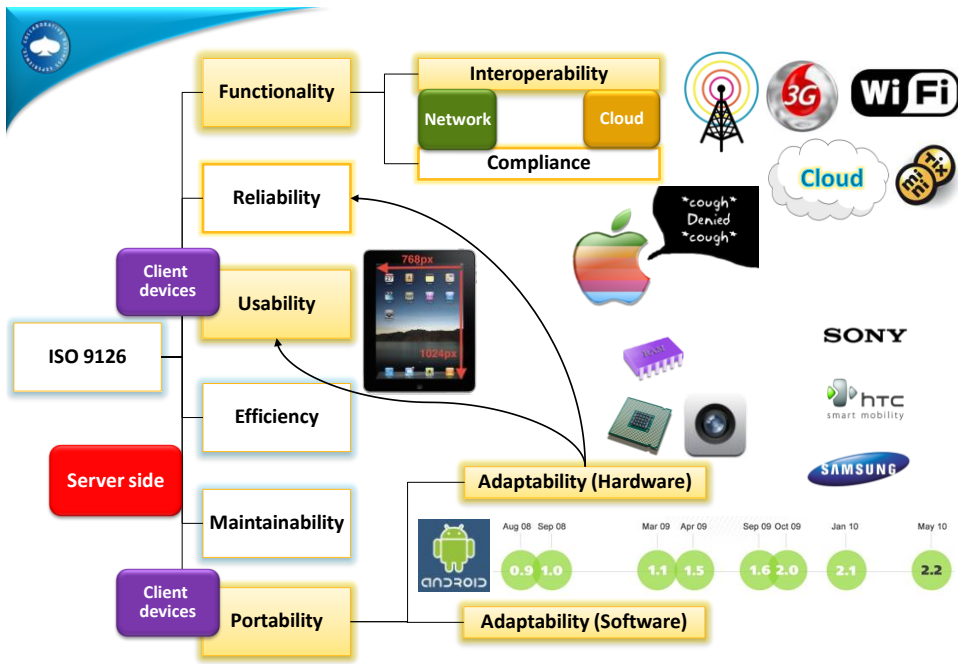
How is testing ubiquitous computing different?

- NOT!
  - o Still verify requirements against the implementation

- A Lot!
  - Using simulators
  - Using many different devices
  - Usability testing
  - Testing using the cloud
  - Technical skills: Mobile devices & Automatic testing

The way forward

- Plan for the PC to be overtaken as the primary computing device used by customers are consumers. [...] Redesign websites and portals for access from mobile devices. – Gartner

Testers have to do this to!

People matter, results count.

Eddy Bruin

Test Consultant
Financial services

Mobile   +31 6 4520 6779

eddy.bruin@capgemini.com

eddybruin