

Your Next Mobile Phone!

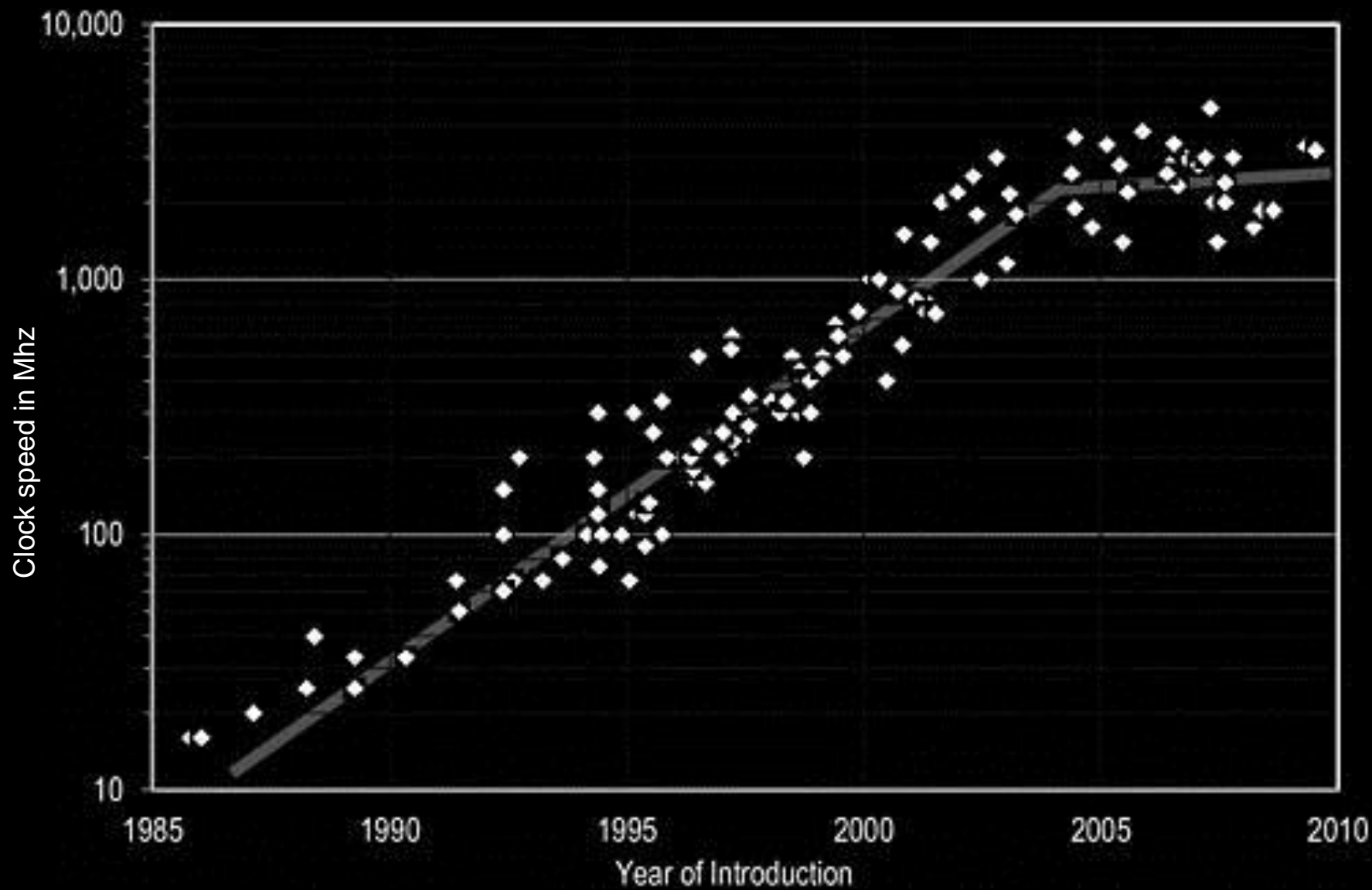


Once upon a time....









Accelerometer

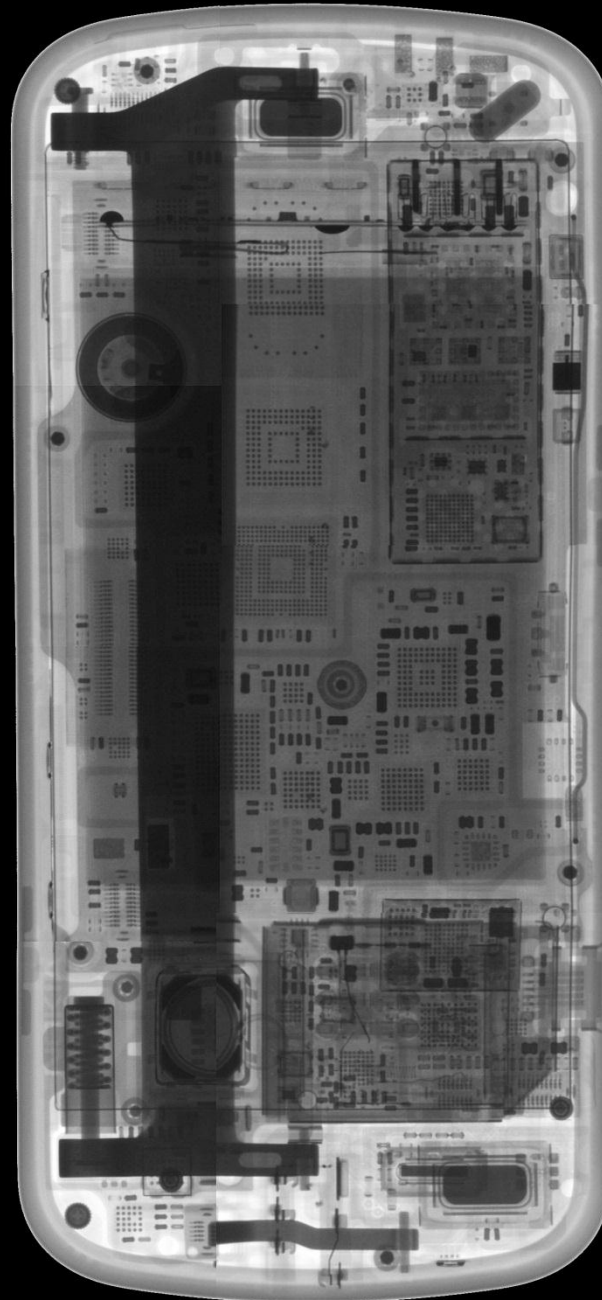
GPS

Magnetic field
sensor
(compass)

Gyroscope

Proximity
sensor

Light sensor



Bluetooth

Wifi

NFC

CPU
thermometer

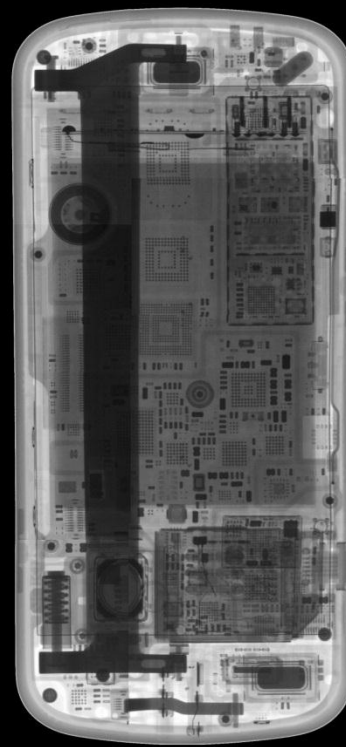
Microphone

Camera

Touch screen



[Fahrni et al., 2011]



[Sommer et al., 2012]

A man in a dark polo shirt and glasses is shown in profile, wearing three glowing blue wristbands on his arms. The wristbands are connected by white wires that loop around his arms. The background is a plain, light-colored wall.

The future of mobile phones?



It's the software...





Participatory Sensing

=

Web 2.0 → Mobile



11:03 PM

Google

Maps Gallery YouTube Market

Phone Gmail Browser Voice

61°

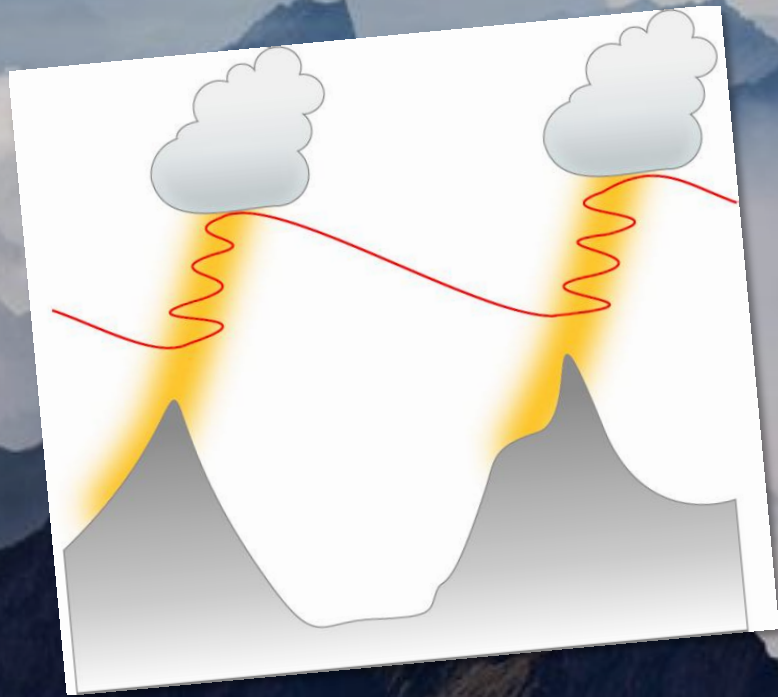
Helping Grandpa Get His Tech On
New York Times



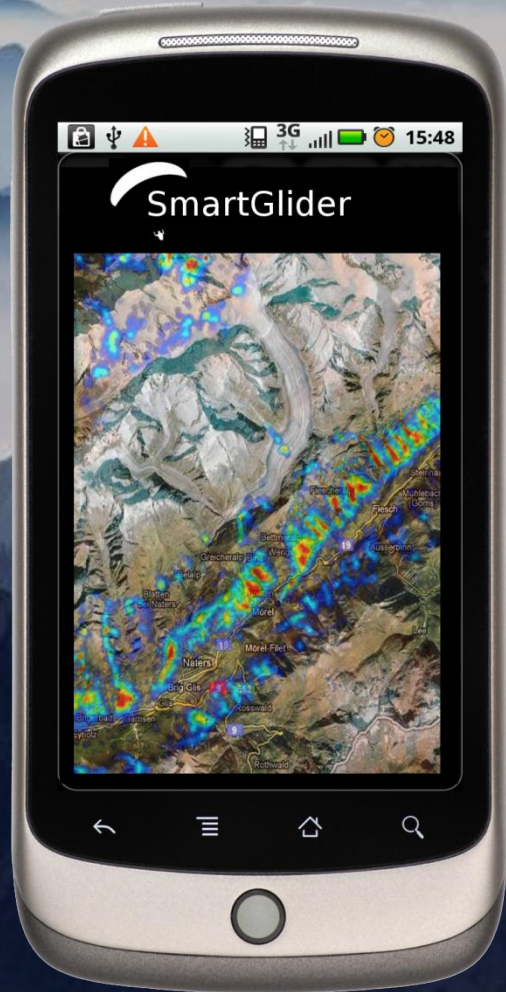
Monday



Monday



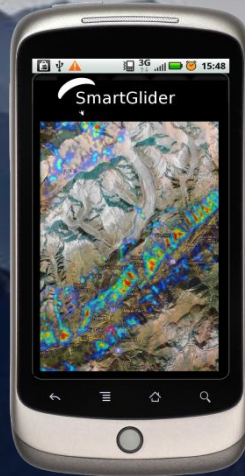
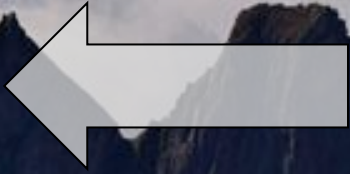
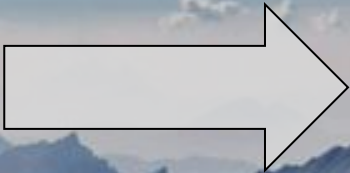
Monday



GPS logging



Web 2.0



Thermal maps

Data processing

Tuesday





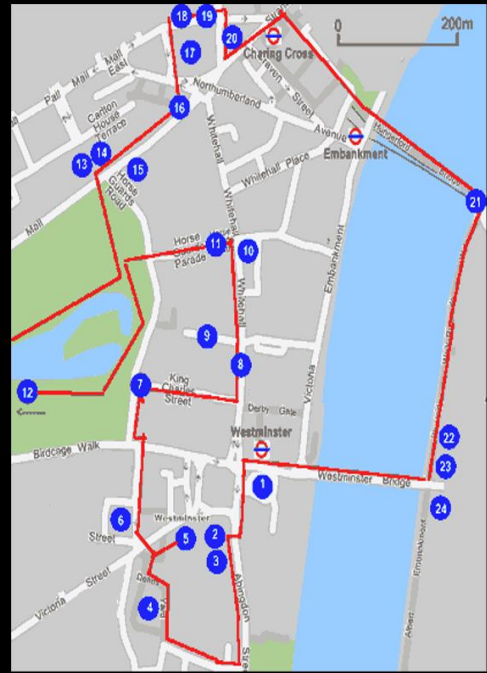
London





3G 15:48

Your City Tour



← ≡ ↗ 🔍

[Choudhury et al., 2010]



This photo was taken on April 5, 2009 in Tower Hill, London, England, GB.

©Yahoo!2010, Data©NAVTEQ2009

40,647 78 271 45

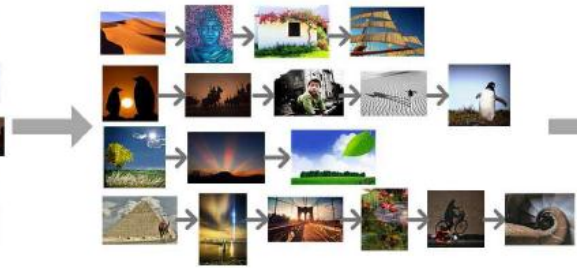


Tags

- London
- bridge
- tower
- London bridge
- Tower Bridge
- river
- Thames
- England
- UK
- Londres
- travel
- blue
- blue and white



Photoset



User Photo Streams

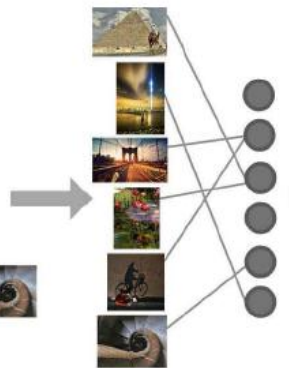
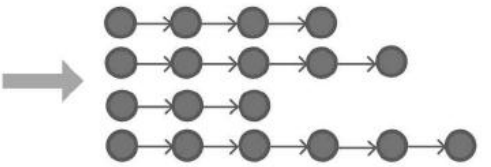


Photo-POI Mapping



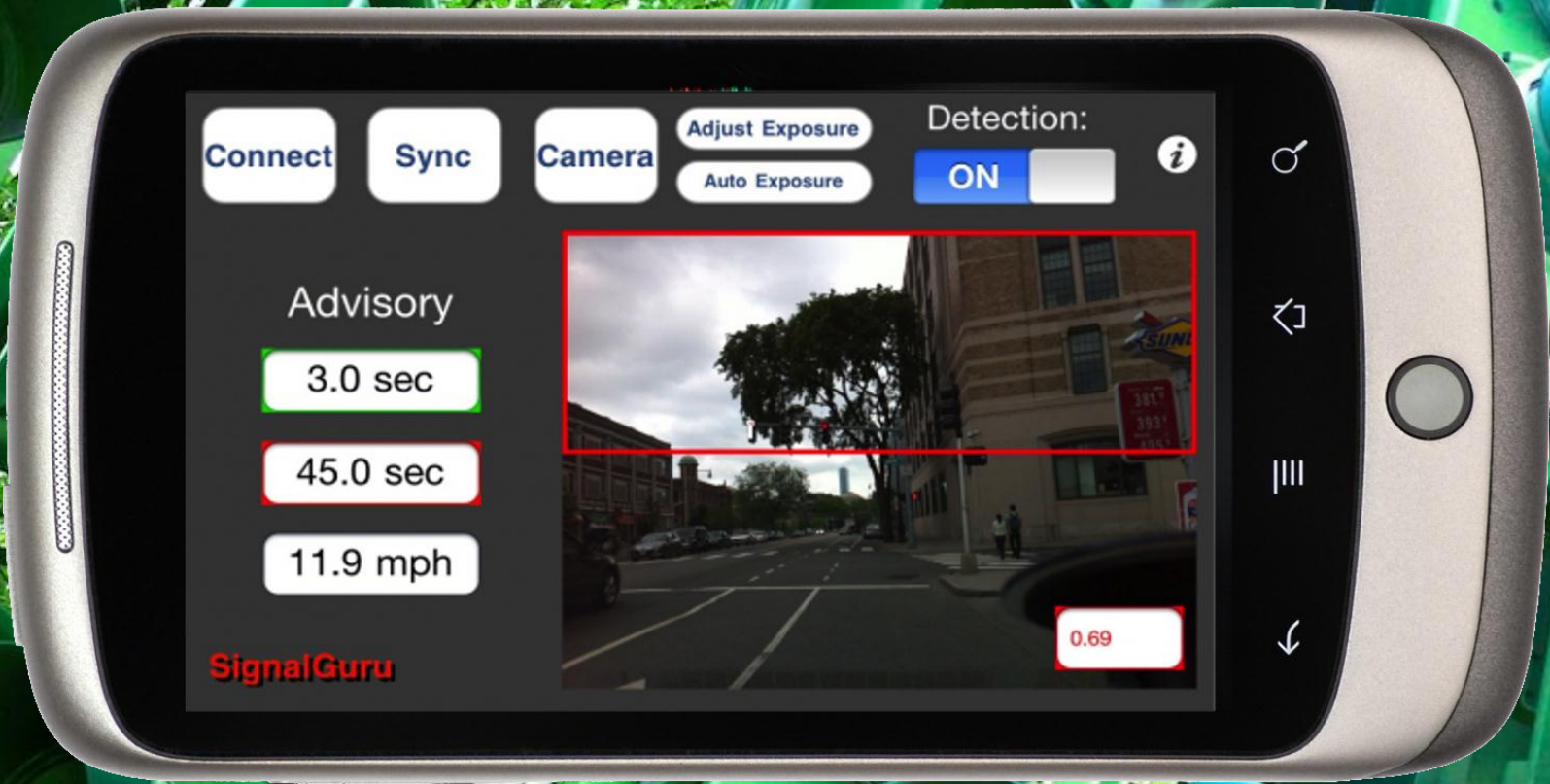
Timed Paths



Don't
buy!







Connect

Sync

Camera

Adjust Exposure

Auto Exposure

Detection:

ON



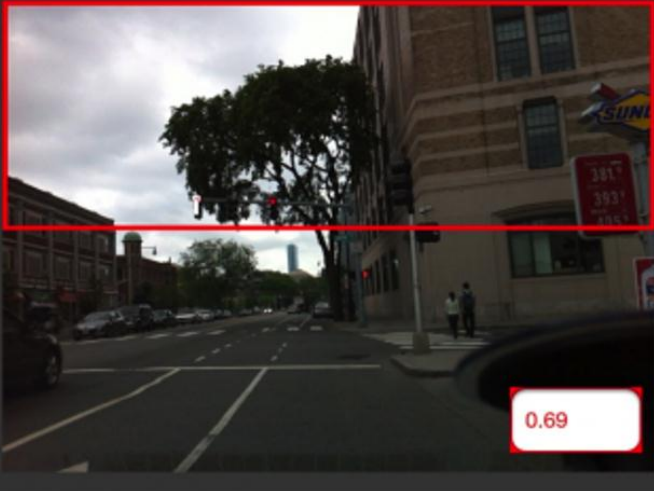
Advisory

3.0 sec

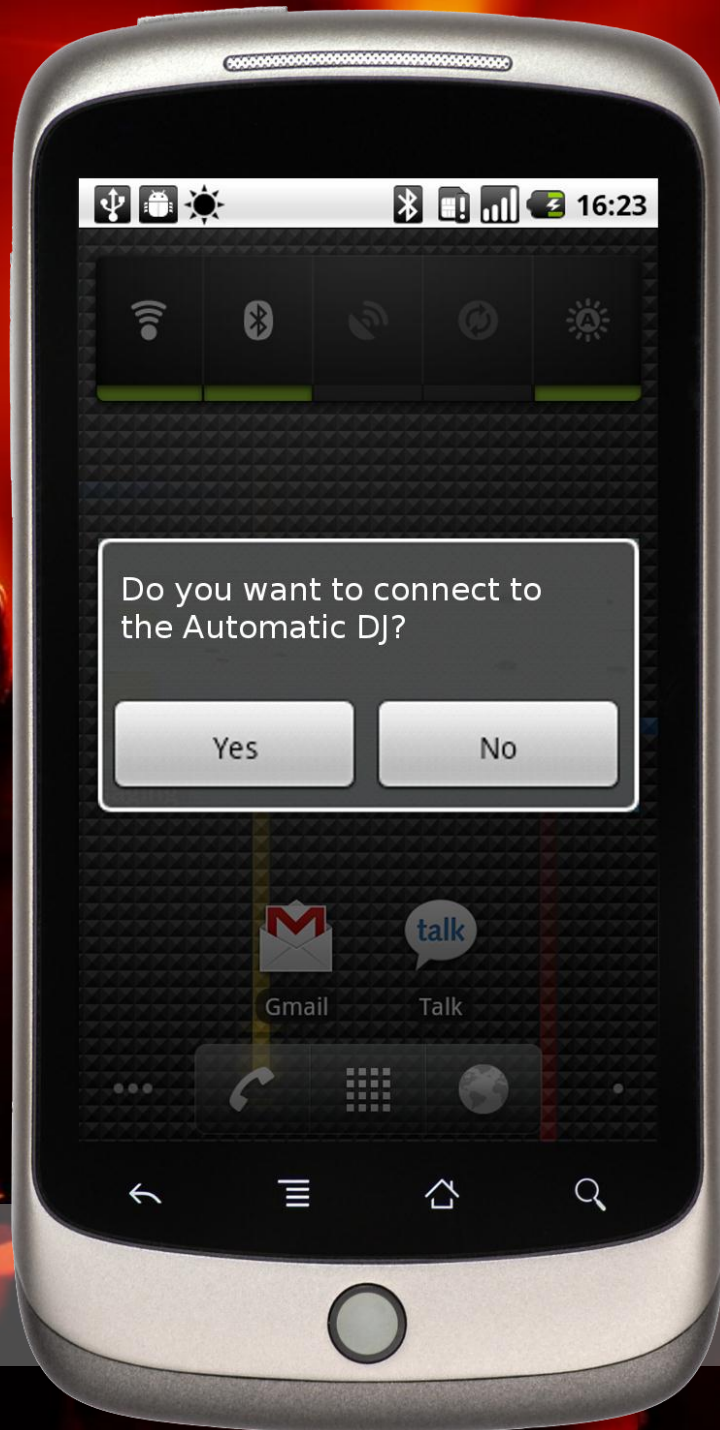
45.0 sec

11.9 mph

SignalGuru



0.69



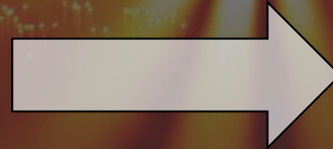
Evening



listen = 😊

skip = ☹️

Accelerometer

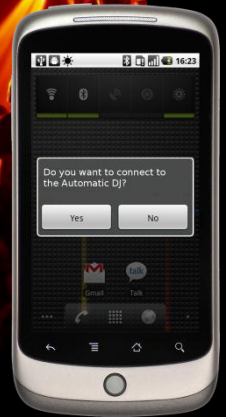
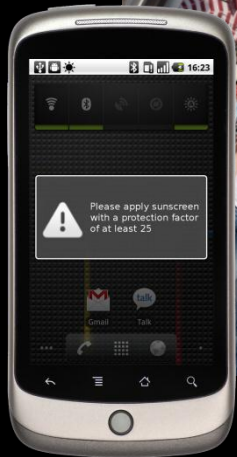
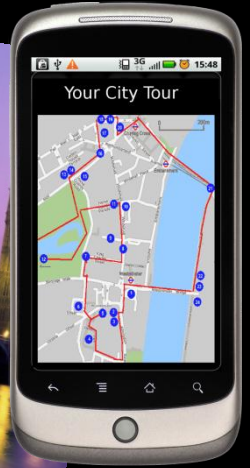


dancing = 😊

sitting = ☹️



Automatic DJ





Sensor Networks





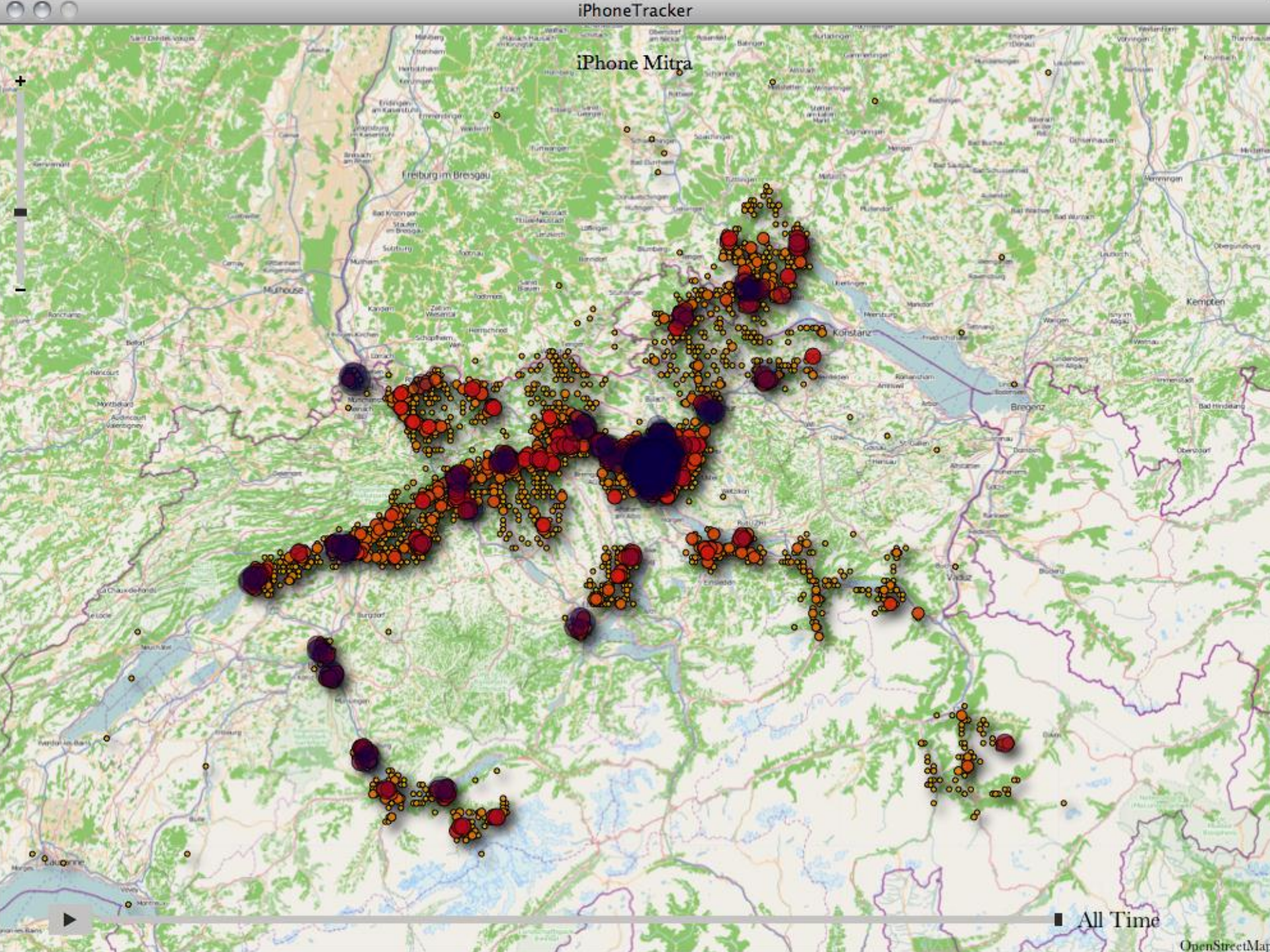
Participatory Sensing

=

Sensor Networks 2.0

Are there privacy issues?

iPhone Mitra



MACBOOK AIR

HP TOUCHPAD

MANGO PREVIEW

WWDC 2011

E3 2011

GALAXY S II

NEWS

HUBS

GALLERIES

VIDEOS

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TIP US

FILED UNDER [Transportation, GPS](#)

TomTom user data sold to Dutch police, used to determine ideal locations for speed traps

By [Tim Stevens](#) posted Apr 27th 2011 1:53PM



FEATURED BREAKING



Nikon unveils S1200pj and AW100 cameras, we go hands-on

10 hours ago



Steve Jobs' Apple: a timeline

12 hours ago



Fujifilm FinePix XP30 hands-on: a week of underwater testing (video)

19 hours ago



Engadget's back to school guide 2011: bags and cases

20 hours ago



Exclusive: HTC Puccini in the wild, AT&T LTE support confirmed!

1 day ago

SEE ALL

FACEBOOK ACTIVITY



Q: What about privacy?

A: If you use a mobile phone...



Q: What about privacy?

A: Mobile phone providers...

[Answer by Santiago Garcia, Program Manager eTicketing SBB,
Interview with Matin Dimanche, June 2011]

What can we do about it?



14:32

FREE



Allow this application to access:

- ✓ **Your location**
coarse (network-based) location, fine (GPS) location
- ✓ **Network communication**
full Internet access
- ✓ **Your personal information**
add or modify calendar events and send email to guests, read calendar events, read contact data

Done



↔️ SBB CFF FFS

Details

Fare/buy

From Zürich HB **Date**
To Bern 25.08.2011

Dep 14:38 Pl. 13 **Zürich HB** 1.👤 2.👤

 RE 3726 RegioExpress 

Arr 15:05 Pl. 4 **Aarau**

Dep 15:14 Pl. 5 **Aarau**

 RE 3626 RegioExpress 



News



History



Settings



Rate this application



Insert into calendar



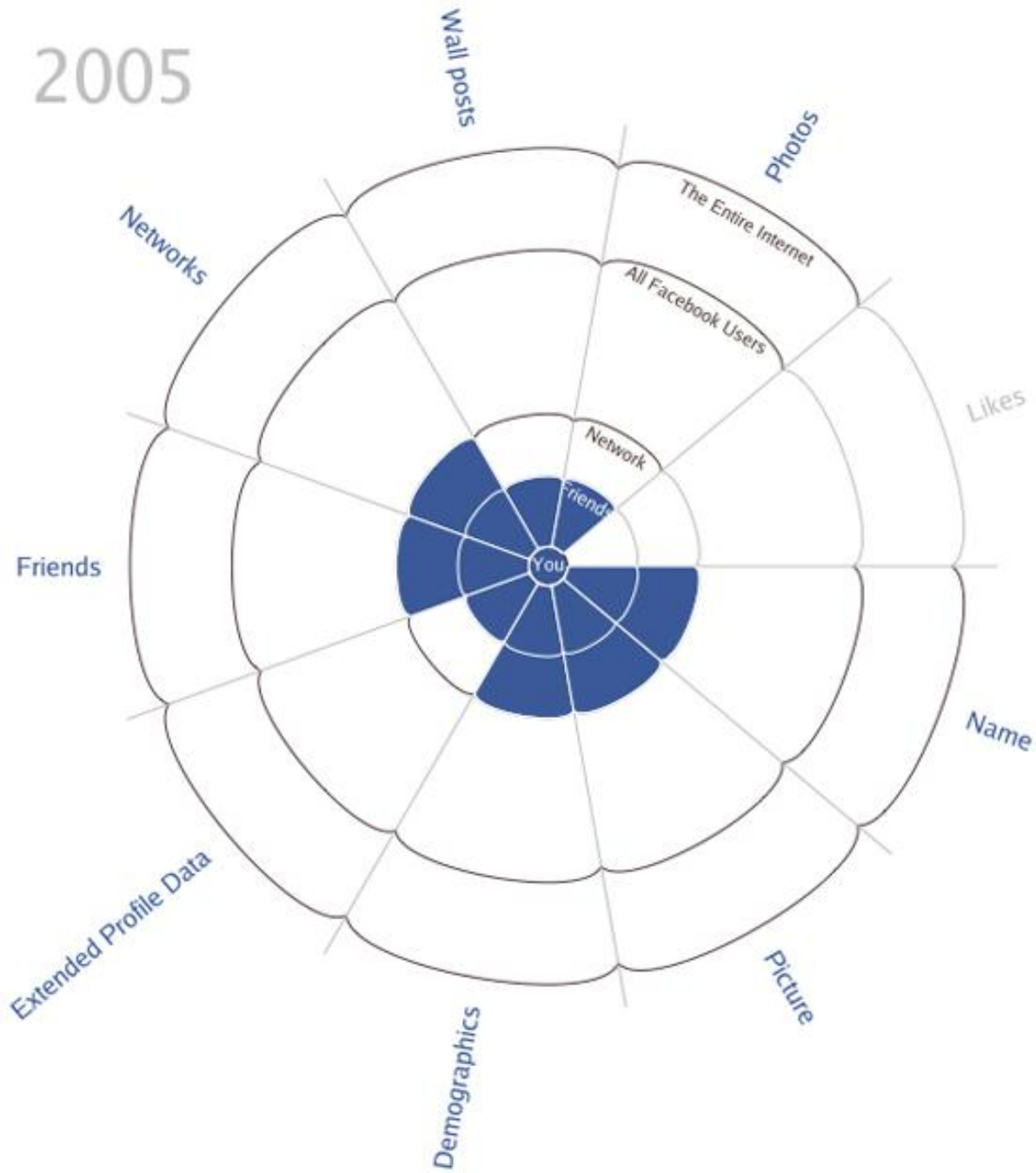
Share as text

A close-up photograph of a hand holding a green marker. The marker is positioned above a white surface, and the word "privacy" is written in black, lowercase letters on the surface. The lighting is bright, casting a soft shadow of the hand and marker onto the white background.

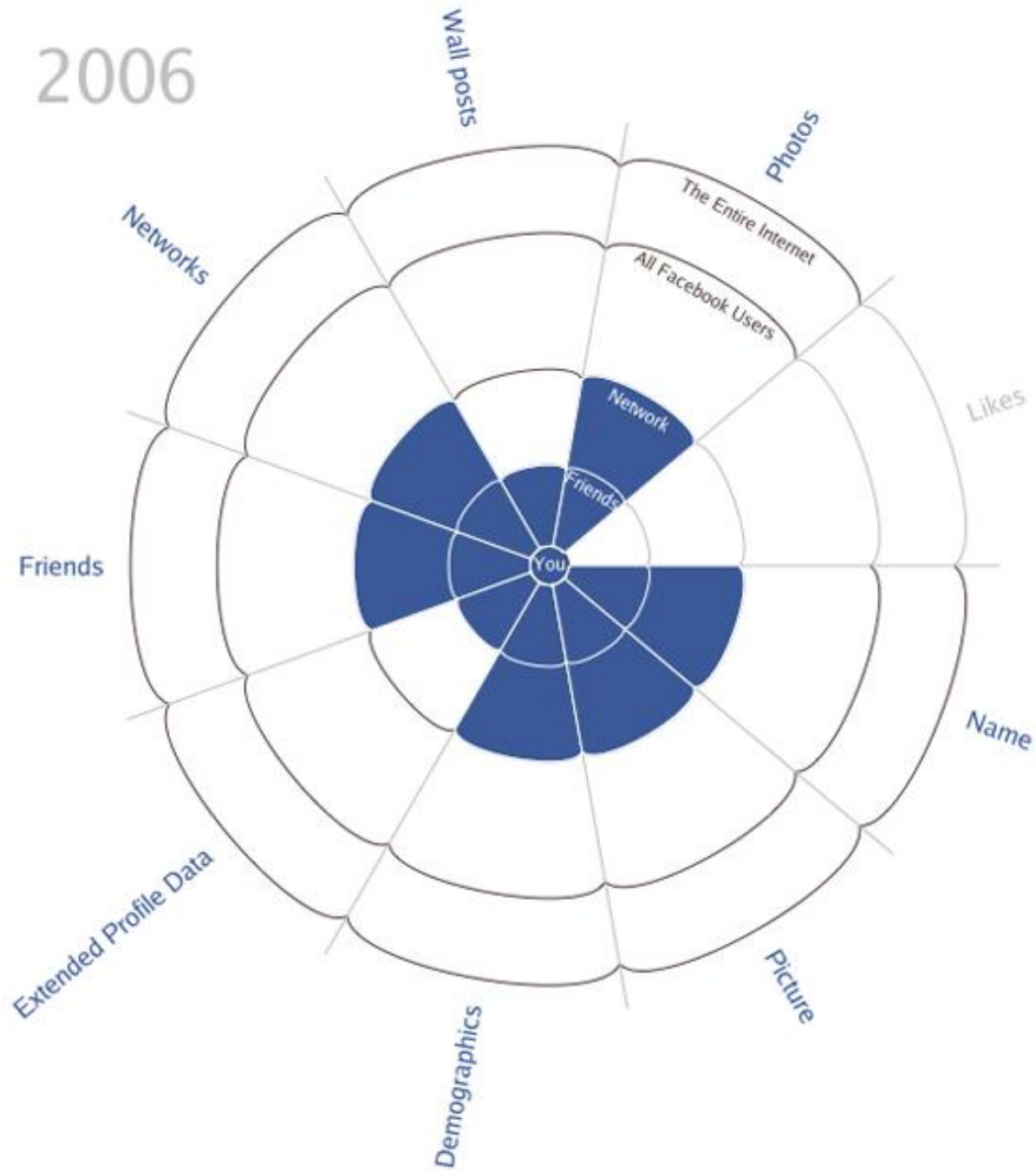
privacy



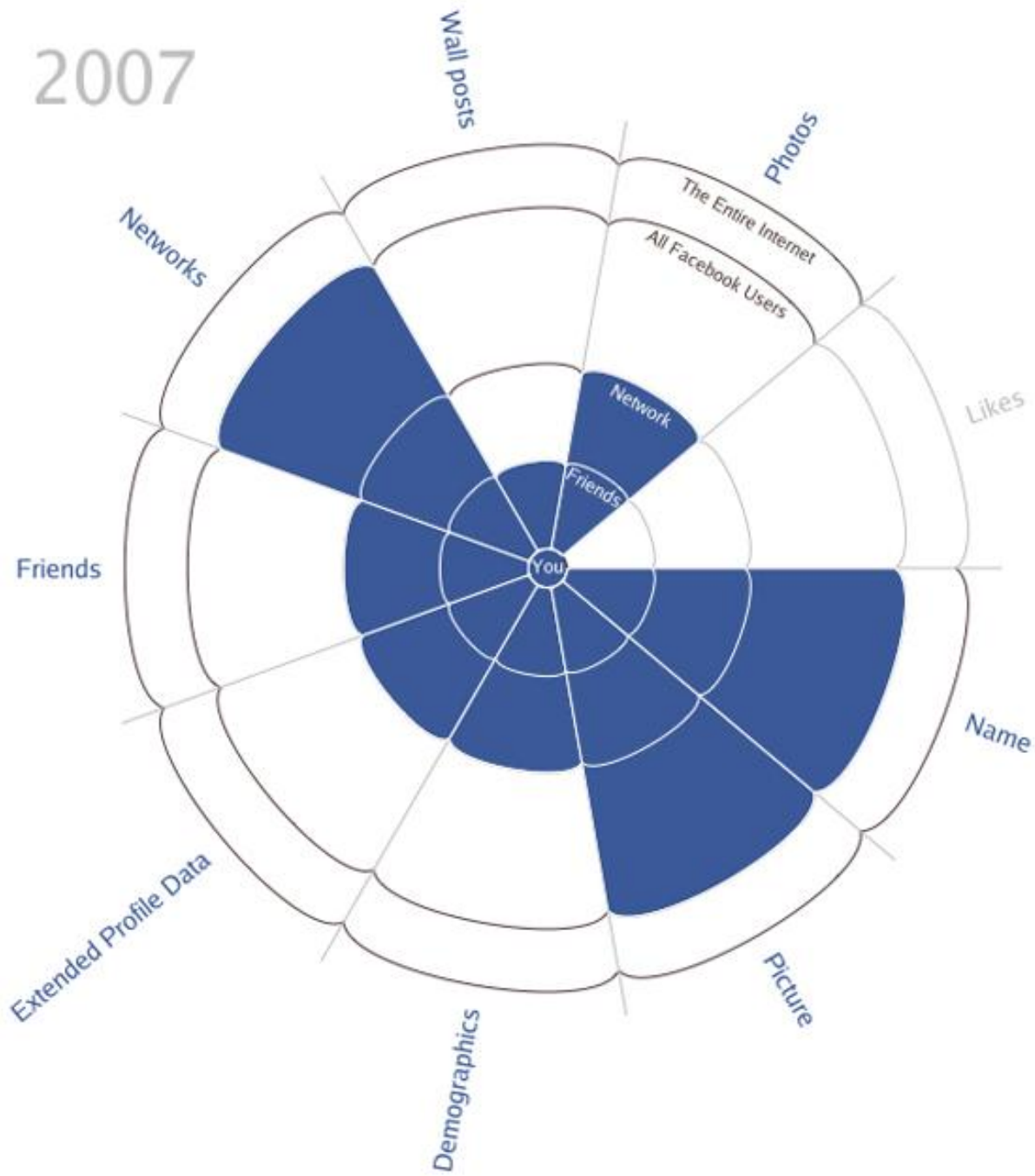
2005



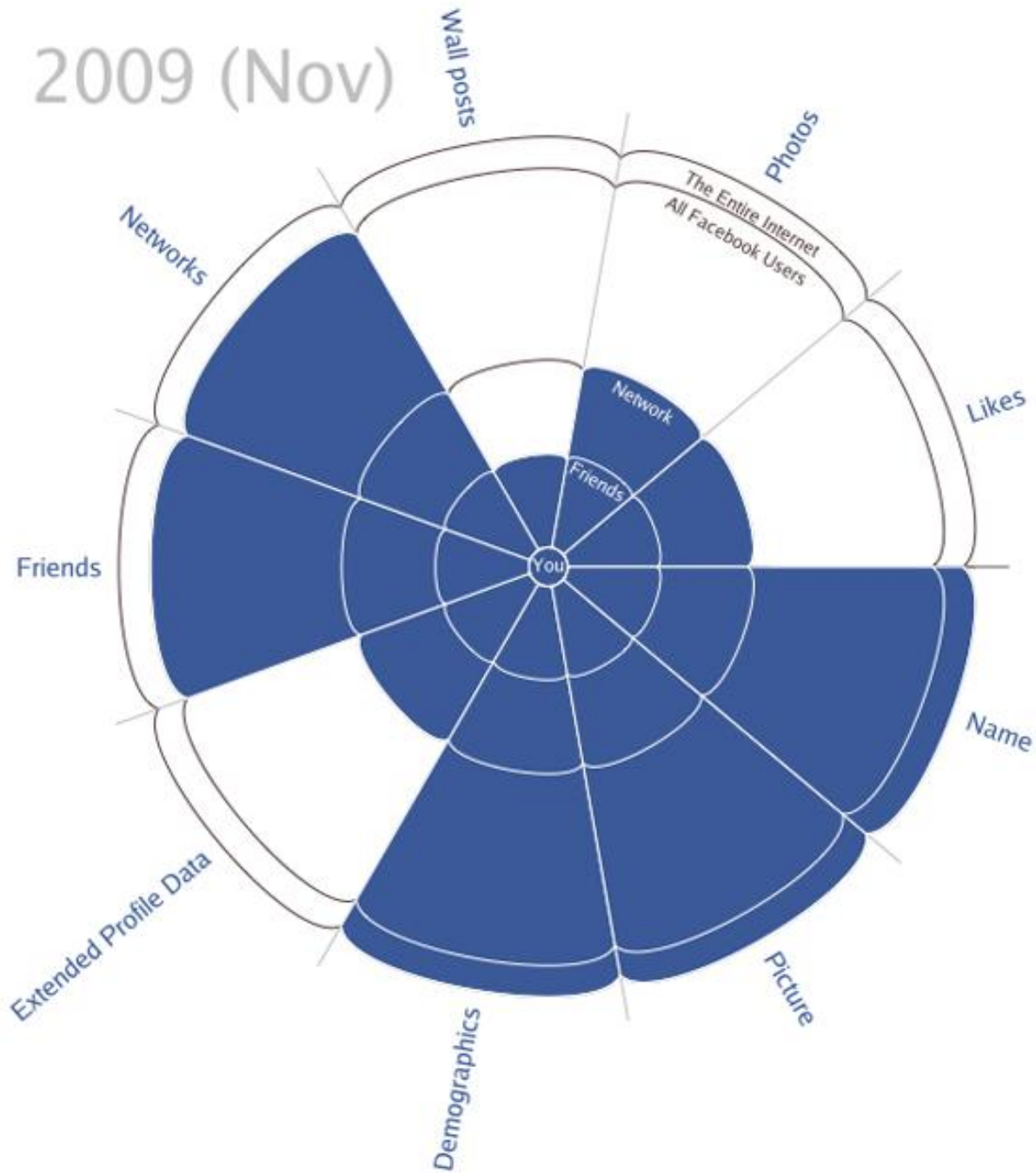
2006



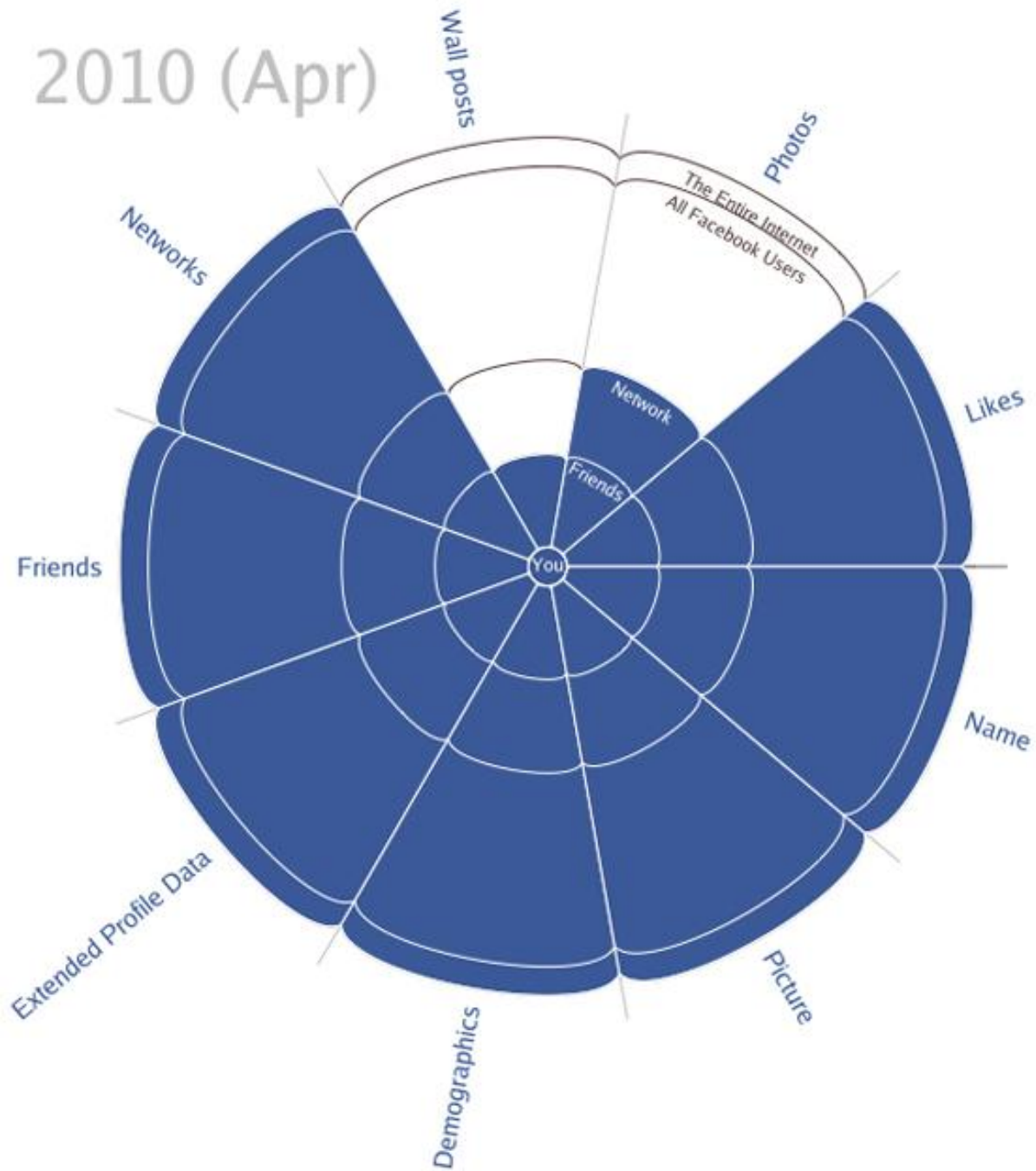
2007



2009 (Nov)



2010 (Apr)



Facebook helps you connect and share with the people in your life. Whether you want to or not. [Learn why this is bad!](#)

Search Facebook updates: "my new number is"

Search



everybody



 **Bekka Segraves** I have a **new** cell phone **number** . As of august 24th this **number** will be deactivated. **My new # Is** 1-989-590-3662

1 minute ago



 **Terri Arbogast** **My new number is** 4173279134

51 minutes ago



PLEASE ROB ME

Listing all those empty homes out there

Also follow our twitter feed [@pleaserobme](#)

Filter

Show everything

Go



Share ↗

More Info

[Home](#)

[Why](#)

[About](#)

Made Possible By

[Foursquare](#)

[Twitter](#)



@kmlake left home and checked in 18 minutes ago:
I'm at San Francisco International Airport (SFO) (SFO, Millbrae) w/ 24 others. <http://4sq.com/MTivk>



@sjn2010 left home and checked in 20 minutes ago:
I'm at Glen Park Station (2816 Diamond St, btw Bosworth & Chenery, San Francisco). <http://4sq.com/5T8U3i>



@BigToys left home and checked in 23 minutes ago:
I'm at Badlands (4121 18th St, near Castro, San Francisco) w/ 2 others.
<http://4sq.com/13g8WM>



@BigToys left home and checked in 26 minutes ago:
I'm at Toad Hall (4146 18th St, at Castro, San Francisco). <http://4sq.com/1AxWZa>



@reedohrien left home and checked in 28 minutes ago:



FACEBOOK

How To Steal \$57,000 From Your Neighbors Using Facebook (Like

BY ALYSSA BEREZNAK

AUG 15, 2011 11:20 PM

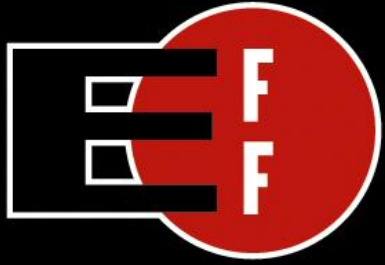
Share



Like

245

53,029 90



Electronic Frontier Foundation

Google



Microsoft



A bar chart comparing the number of appeals for two services in Germany. The left bar, representing Google Streetview in 2010, is significantly taller than the right bar, representing Microsoft Streetside in 2011. The Google bar is divided into a dark grey bottom section and a light blue top section, with the text '240,000 appeals' centered in the light blue section. The Microsoft bar is also divided into a dark grey bottom section and a light blue top section, with the text '60,000 appeals' centered in the light blue section. The labels for each bar are positioned below their respective bars.

240,000 appeals

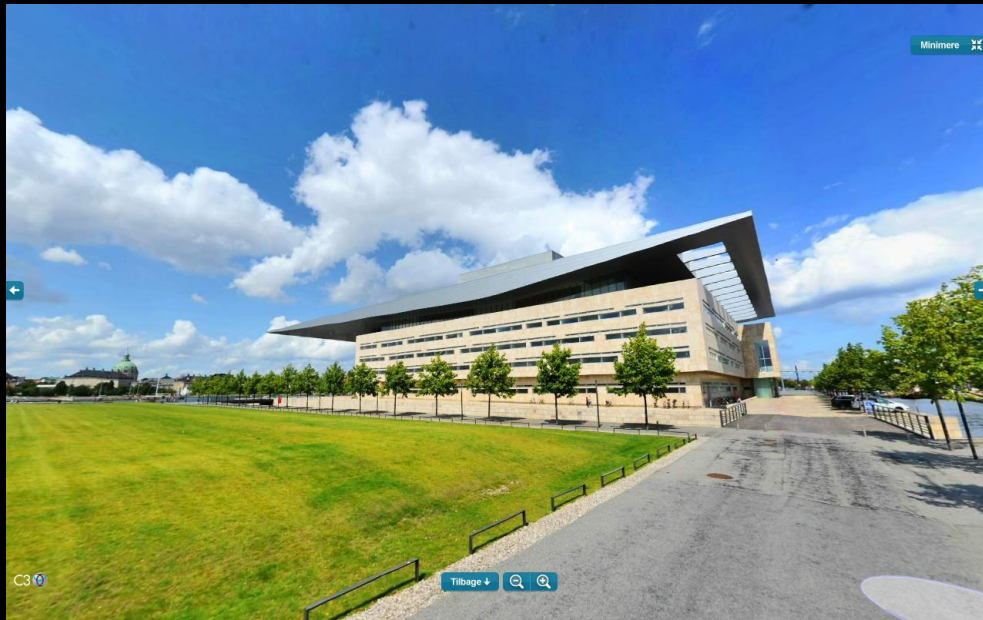
Google
Streetview

Germany 2010

60,000 appeals

Microsoft
Streetside

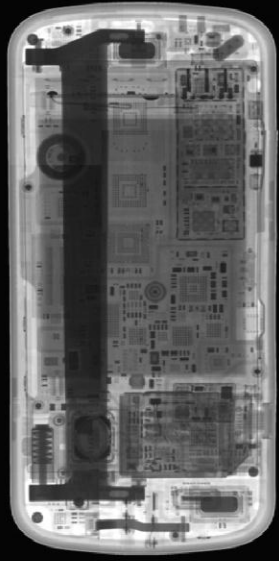
Germany 2011



krak.dk

google.com





Thank You!
Questions or Comments?



Slides by
Michael Kuhn
Roger Wattenhofer
Samuel Welten

“If you have something that you don’t want anyone to know, maybe you shouldn’t be doing it in the first place.”
- *Eric Schmidt, Former CEO of Google*

“You already have zero privacy. Get over it.”
- *Scott G. McNealy CEO of Sun Microsystems Inc*

“Privacy means people know what they're signing up for, in plain English and repeatedly... let them know precisely what you're going to do with their data.
– *Steve Jobs, Former CEO of Apple*

“They ‘trust me’ – Dumb fucks.”
- *Mark Zuckerberg CEO of Facebook*

“I think instead we should have laws that protect the privacy of data, for example, from government requests and other kinds of requests.”
– *Larry Page, Google Co-Founder*