

**“The imperfect past,
the insufficient present,
and the absolutely perfect future”**

Thorsten Koch

IGeLU 2013, Freie Universität Berlin

- Assistant / Adjutant / Secretary

Assistent from Latin *assistentia*, (mostly academically educated) aid

Adjutant from the Latin *adjutans*, present participle of *adjuvare*, “to help”.

It is an officer who assists a more senior officer.

Secretary from Latin *secernere*, “to distinguish” or “to set apart”.

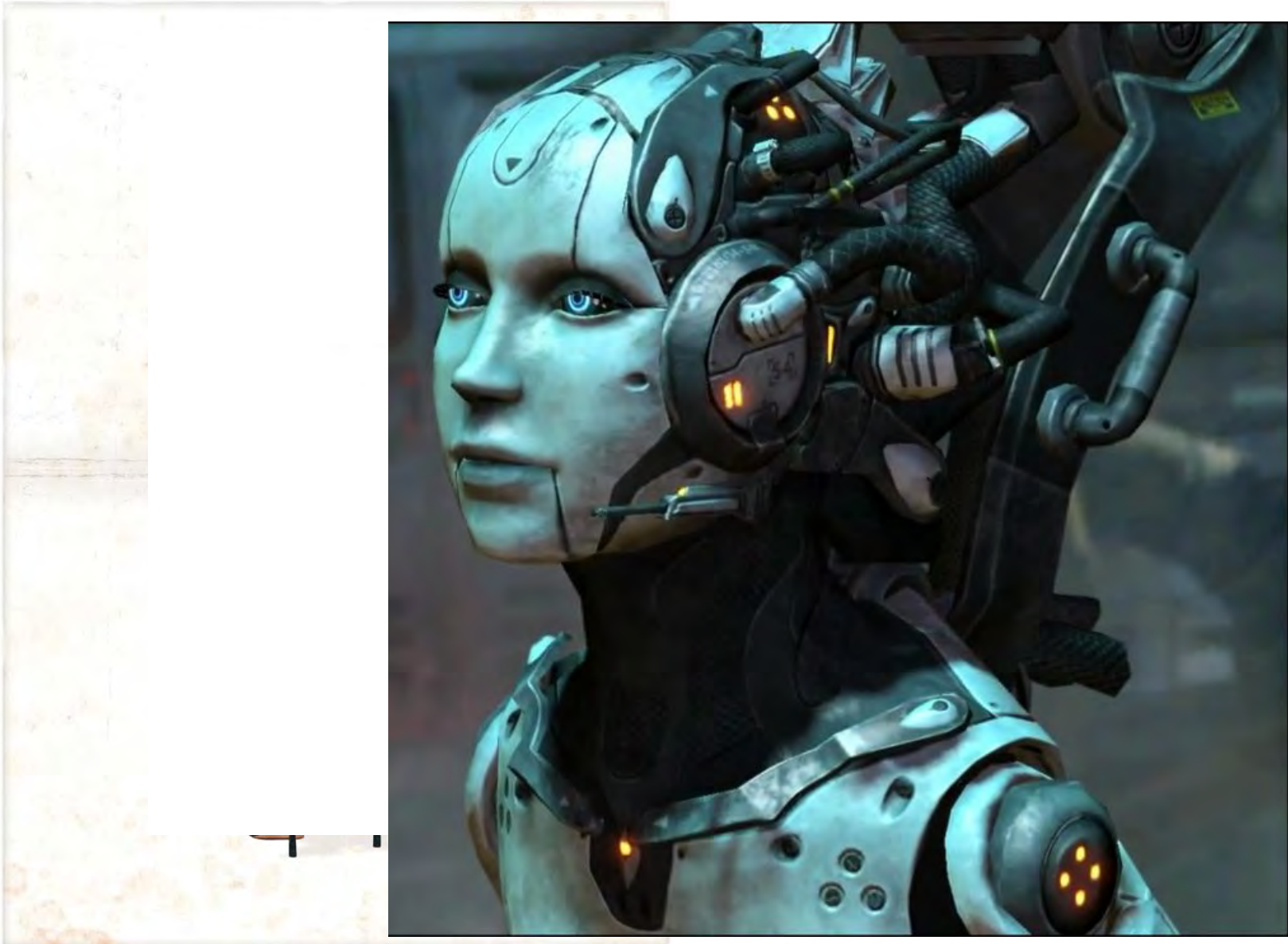
A *secretarius* was a person, overseeing business confidentially.

As the duties of a modern secretary often still include the handling of confidential information, the literal meaning of their title still holds true.

- Google Now is an intelligent personal assistant.

It uses a natural language user interface to answer questions, make recommendations, and perform actions by delegating requests to a set of web services. Along with answering user-initiated queries, Google Now passively **delivers information to the user that it predicts they will want, based on their search habits.**

from Wikipedia



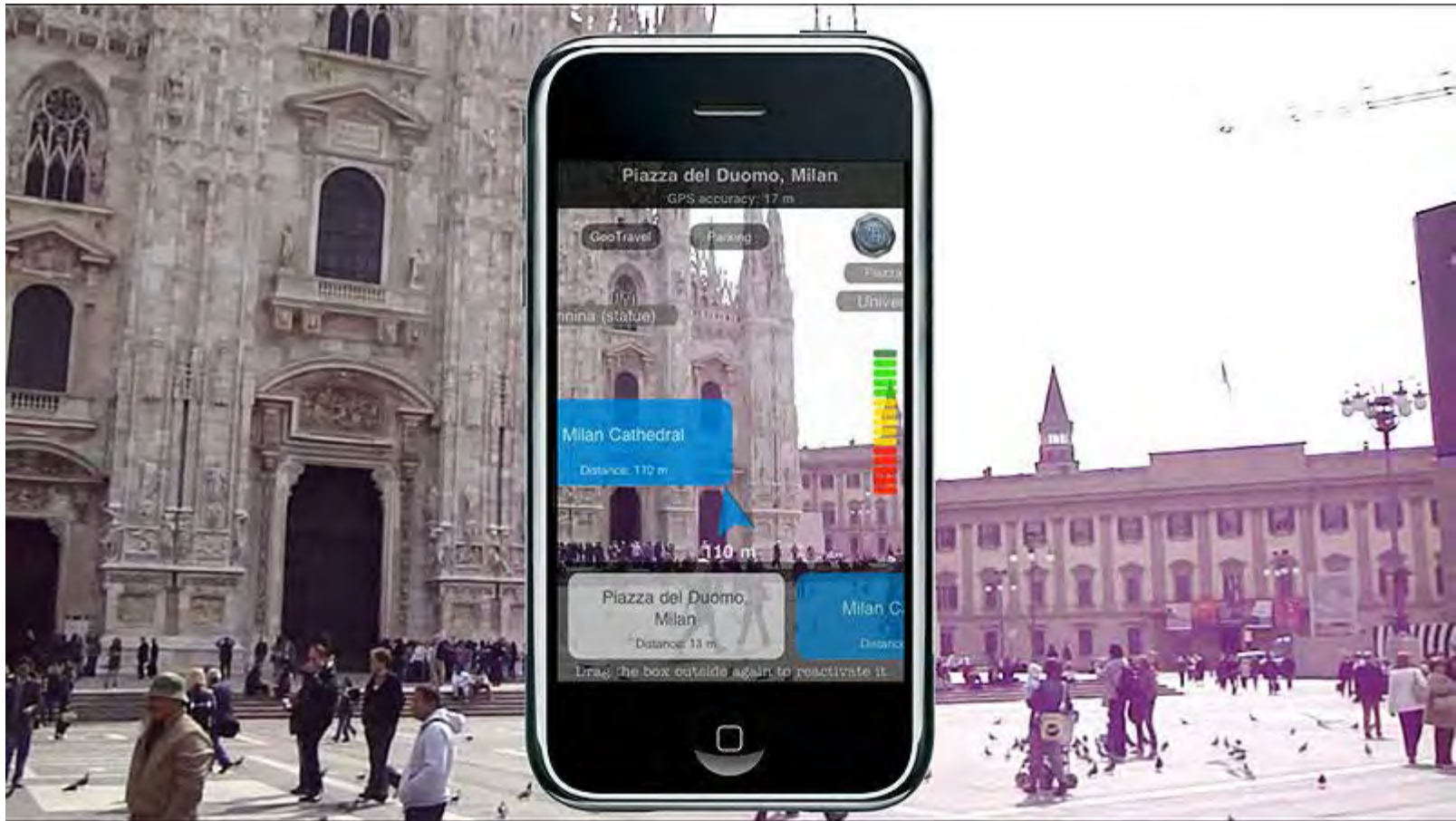
Now you can ask your (digital) assistant:

- What is this music I hear? Get it for me!
- **Who is this person I see there?** Give me some background info!
- When did we meet last? Show last conversation!
- **Where do I have to go?**

(Just arrived at the destination airport. **Calendar** knows where you want to go, **phone** knows where you are, **server** knows how to get there including traffic information, so ...

Taxi, Train, Bus?

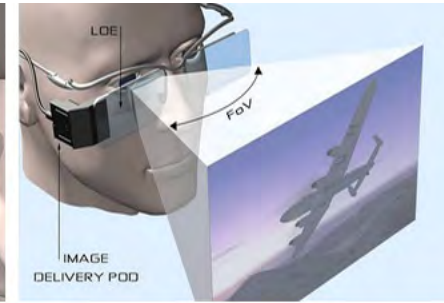
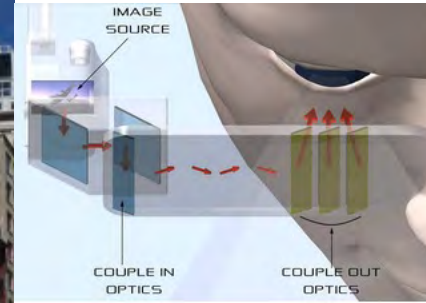
Or automatically send a message you will not be in time.

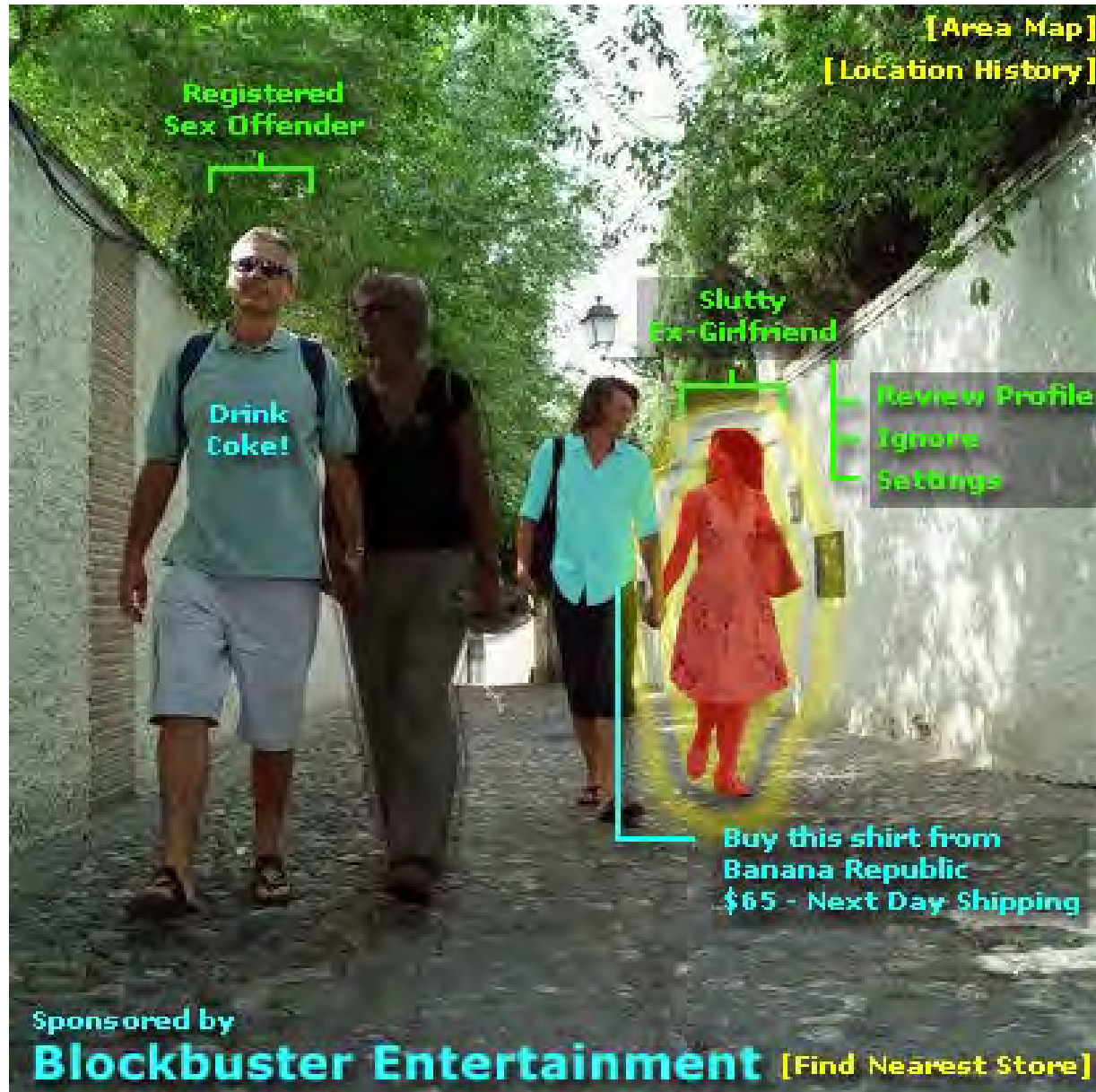


All information everywhere and anytime adjusted to your personal situation and preferences.



kobv Glasses are coming





- Access to lots of (in principle all) books immediately, everywhere
- Remembers where I stopped reading
- Allows reading in the dark 😊
- Notes/remarks without messing up the book
- No shelf space needed
- Books are searchable
- Comes with dictionary and translator
- Allows Wikipedia lookups
- It could be the magic „one“ book you really need



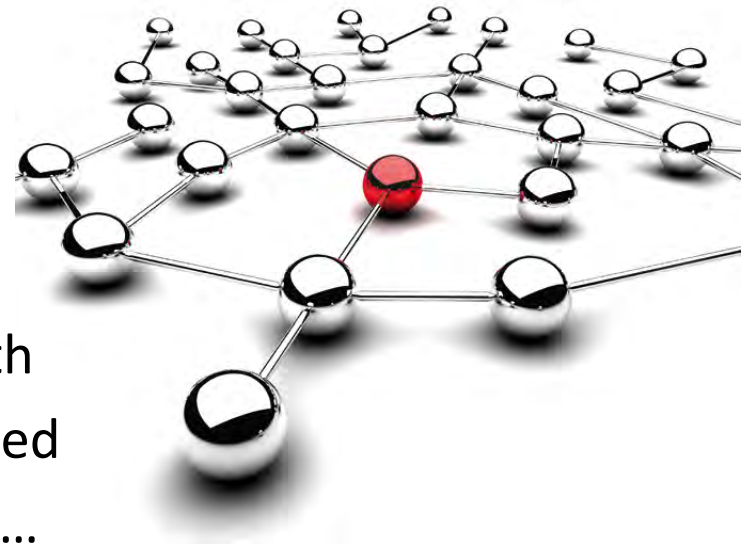
History

- 1960 Batch processing (ancient past)
User share one computer one after the other.
- **1970** Multiuser Timesharing with Terminals (centralized IT)
User share one computer at the same time.
Start of the Mini-computer development.
- **1980** Personal Computer (PC) (decentralized IT)
Each user has its own (small) computer.
- **1990** Networked PC and Client-Server Computing
PC with access to centralized data / programs.
- **2000** The Empire strikes back: Virtual Machines and Thin-Clients
Consolidating from PC to Computing Center with new kind of terminals.
- 2000-2010 Extension of the Internet and Web 2.0
The Web becomes ubiquitous and interactive → Smartphones
- **2010** Cloud Computing (decentralized centralized IT)
The Internet is the Mainframe and the browser the terminal.

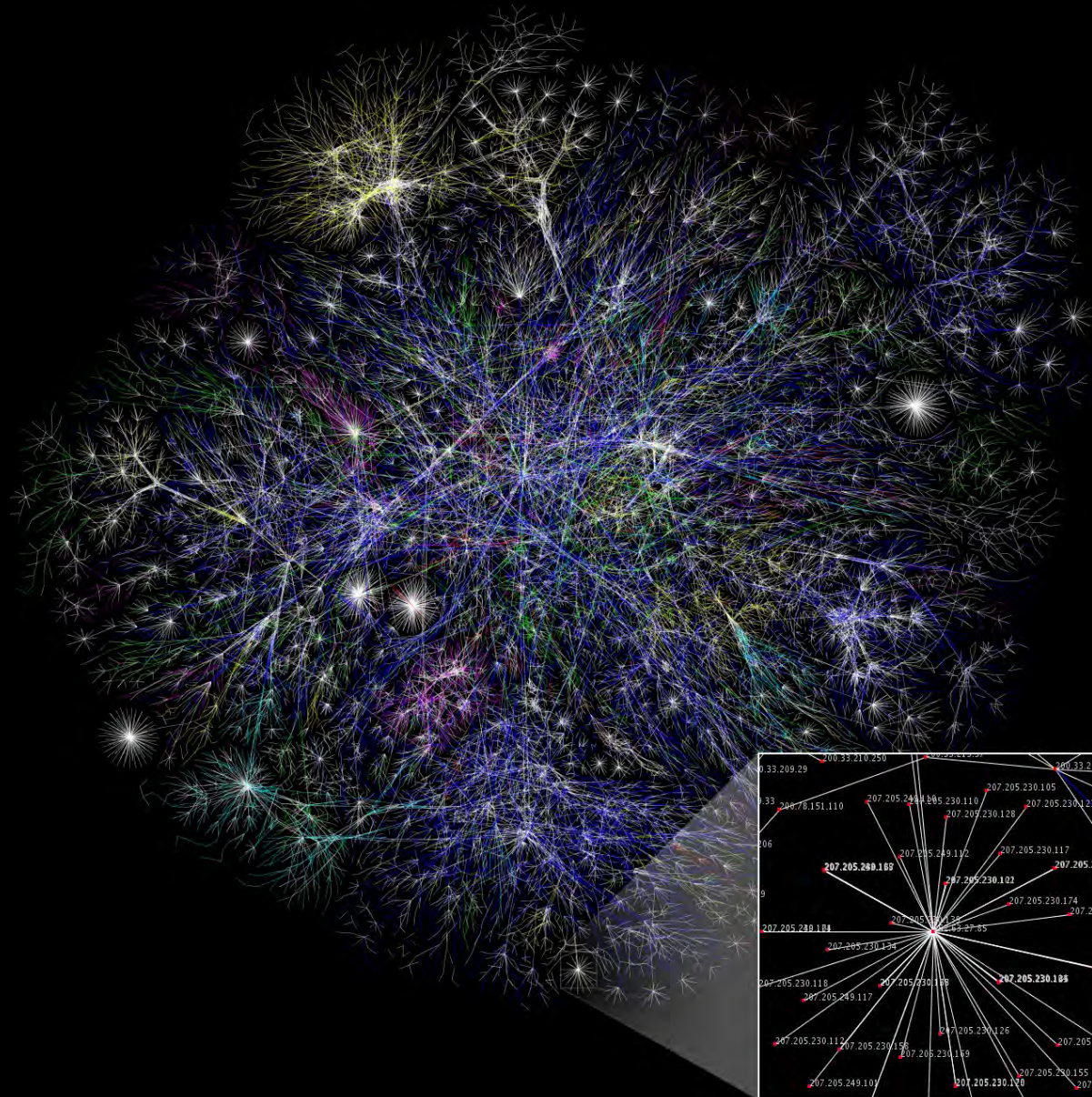
Break Point

Up to 2010 if you wanted to have a computer perform a given service, you had to enter the data. No longer:

- Smartphone: Knows where you are, who you are communicating with
- Google Glass: Sees what you see
- Motorola Moto X: Listens all the time
- Maps of the world are online, including views of the streets, 3D ...
- Schedules of busses, trains, planes are online, even real-time info
- Web Calendar: Knows what you intend
- Kindle: Sees what you read
- Google: Knows what you are searching for
- Amazon: Knows what you have bought
- Facebook: Knows whom you are friends with
- And the information is now getting connected
- The Network is getting tighter every day 😊 ...









Whatever your assistant knows, other can/will know:

- Where you are
- Where you go
- What you look at
- Who you talk to
- What you read
- What you view
- What you hear
- What you write
- What you buy
- What you are looking for, what you are interested in
- How fast you read, your comments

And all of it is searchable.

- In George Orwell's "1984," government censors erase all traces of news articles embarrassing to Big Brother by sending them down an incineration chute called the "memory hole."
- On Friday it was "1984" and another Orwell book, "Animal Farm," that were dropped down the memory hole — by Amazon.com.
- In a move that angered customers and generated waves of online pique, Amazon remotely deleted some digital editions of the books from the Kindle devices of readers who had bought them.
- An Amazon spokesman, Drew Herdener, said in an e-mail message that the books were added to the Kindle store by a company that did not have rights to them, using a self-service function. "When we were notified of this by the rights holder, we removed the illegal copies from our systems and from customers' devices, and refunded customers," he said.



The data known about you, might decide on:

- What prices are you offered (e.g. for Hotels)
- What conditions you are offered (e.g. for Loans, Insurances)
- What ever your assistant is offering you, it might be skewed by advertisement/money paid.

Is this your assistant?

Imagine a classical communist government, e.g. GDR.

The government typically spends huge amounts of money and effort to spy on their own citizens, in this case the Ministry for State Security (Stasi) employed about 274,000 people (officially).

Now imagine, they would have developed the iPhone and the xbox one.

As they are used to, they would have forced every citizen to have one.

- With the iPhone they would know, where everybody is, who he/she communicates with, etc.
- With the xbox one ...

- The console's prominent use of the Kinect sensor was the subject of concerns surrounding its potential use for surveillance, stemming from the originally announced requirement that the peripheral be plugged in at all times for the console to operate. Privacy advocates contended that the increased amount of data which could be collected with the new Kinect (such as a person's eye movements, heart rate, and mood) could be used for targeted advertising.
- Concerns were also raised that the device could also record conversations, as its microphone remains active at all times.





“They who can give up essential liberty to obtain a little temporary safety, deserve neither liberty nor safety.”

--- Benjamin Franklin, (1775)

**Thank you
very much!**

Questions?