Towards Total Control?
-
How information technology is changing society

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Stay awake! We <u>are</u> watching you!

Outline

- History of surveillance and control
- CCTV
- Data retention
- RFID
- Total control?
- Discussion
    - How much security do we need?
    - What do the people want?

Recent history

- G8:
  - Search in leftist centres
  - Odour samples taken
  - Search of mail communication with media
- Soccer World Championship
 - Forget Kurt3D
 - „*We need to have your credit card number!*"

Some History

- Bentham's Panopticon:

  – *„(...)punishing the incorrigible, guarding the insane, reforming the vicious, confining the suspected, employing the idle, maintaining the helpless, curing the sick, instructing the willing(...)"*

  – *„Such are those which have suggested the idea of penitentiary-houses: in which the objects of safe custody, confinement, solitude, forced labour, and instruction, were all of them to be kept in view."*

(Bentham, Jeremy (1748 - 1832) The Panopticon Writings. Ed. Miran Bozovic (London: Verso, 1995). p. 29-95)

Panopticon
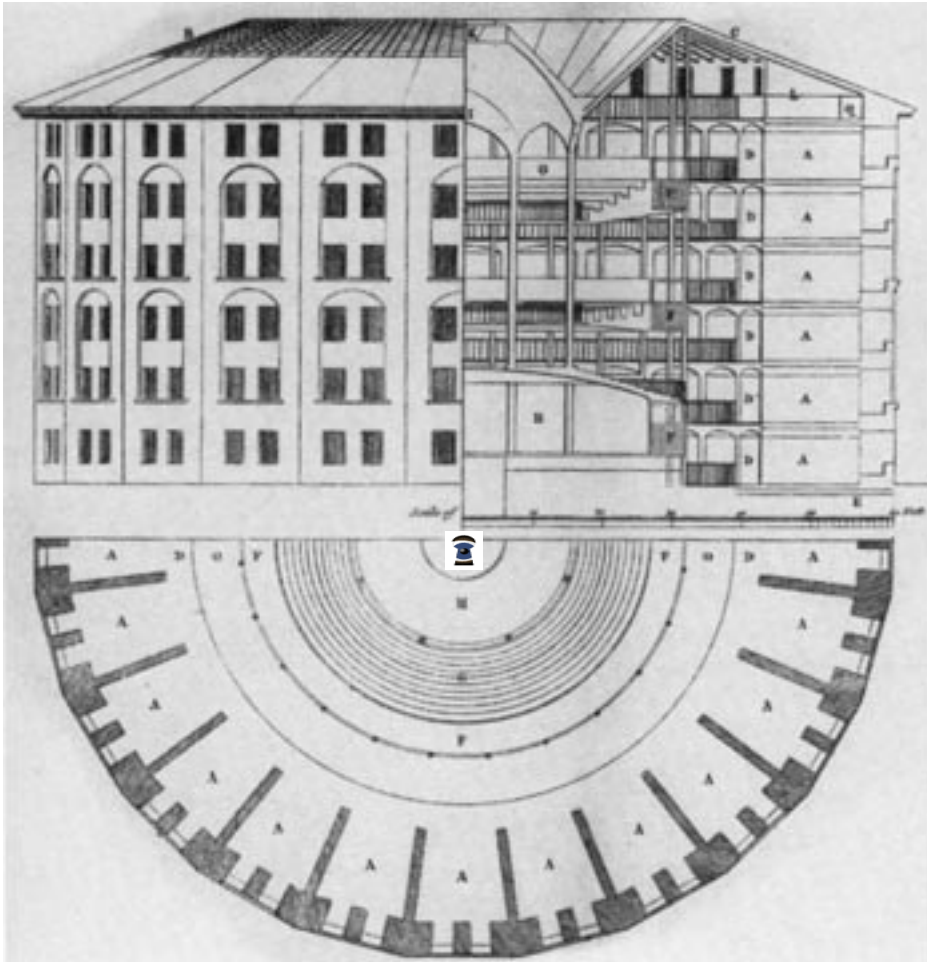
Panopticon
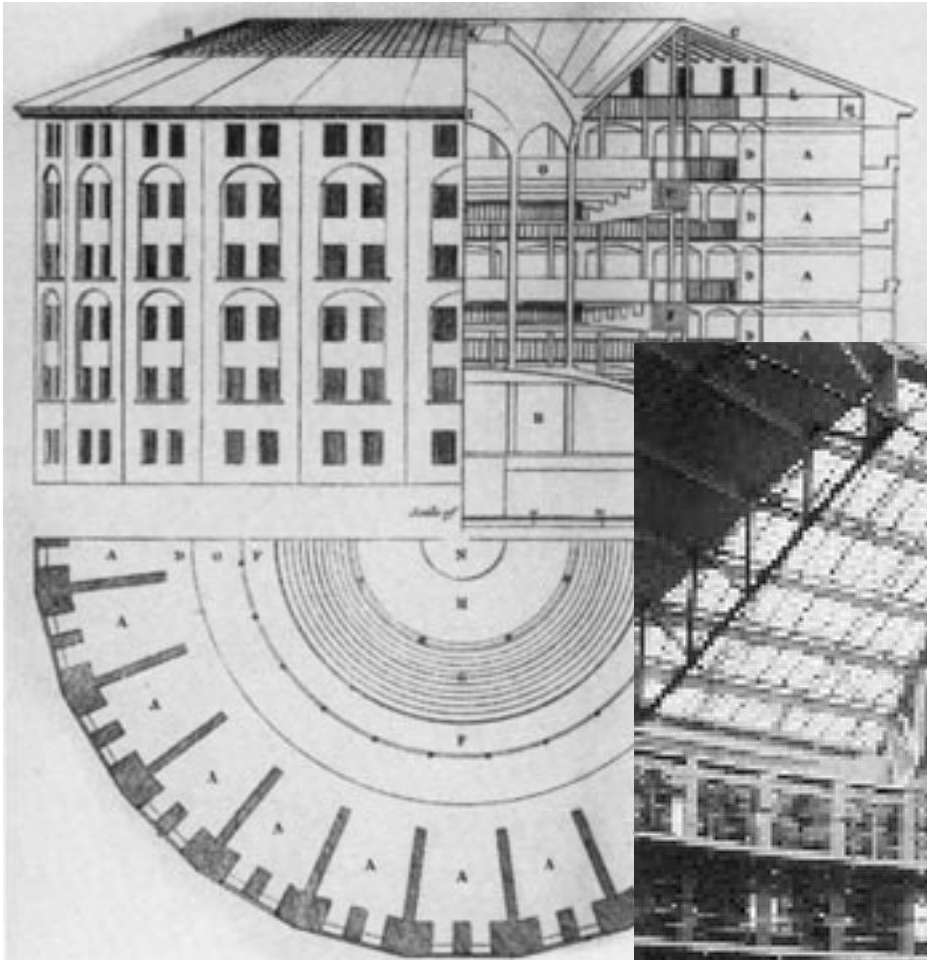
Foucault and the idea of self control

- *"Hence the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; (...) the inmate must never know whether he is being looked at at any one moment; but he must be sure that he may always be so. „*

'Panopticism' in Foucault, Michel Discipline & Punish: The Birth of the Prison

Panopticon in real life?

- *„Despite the state-of-the-art security systems built into the jail, inmate Kevin Pullum walked out an employee exit on July 6, 2001, two hours after being convicted of attempted murder, and remained at large for eighteen days before he was apprehended within a mile (1.6 km) of the jail. Pullum used a newspaper photograph of actor Eddie Murphy to alter an identification badge he used in the escape.“*

Wikipedia article on a panoptic state prison in California

Panopticon in real life!
CCTV

- Notes on CCTV:
    - Closed-circuit television was first used for traffic management
    - Surveillance in UK after IRA bombing in the '70s
    - Nowadays even talking CCTV in the UK
    - Also, the chinese broadcasting company is called CCTV

Panopticon in real life!
CCTV

Panopticon in real life!
CCTV

CCTV problems

- Who decides about what is morally ok?

  - *„ A man from Essex whose picture was captured on CCTV just after he tried to kill himself and broadcasted on television, has won his legal battle for compensation.“*

- Who controls the controller?

Ethnological study on the controller

- „Most of them know we're watching, so they wear 'em American baseball caps to try an' hide their identity ... Also you get them who wear those designer puffer jackets or jerseys with hoods on them to try an' cover up their identity ... Yeah, anyone wearing those sort of dodgy clothes and looking a bit shifty is a legitimate target for surveillance."

Ethnological study on the controllers

- *„If someone's acting strange around the car park ... they're obviously doing it for a reason … Students have timetables to follow don't they? Yer average student hasn't the time just to stand around. So yeah, anyone 'hanging about' without any obvious purpose immediately warrants suspicion."*

Hey, but it works... somewhat

- *„I can't tell you how many things we've missed when we huv not been watching the other screens. Break-ins, assaults and car thefts huv been going on whilst we've been operating the other cameras ... It's really annoying."*

- *„I mean the cameras are useful an' that, but they can't go inside buildings and actually step in and physically remove the criminals. They can't stop an assault happenin' either can they? They can watch an' record it, but they can't intervene like my men can."*

(Surveillance & Society Vol 2, Issue 2/3, CCTV Specials: Behind the Screens)

CAMERA 14

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And now, the solution!

- „Let's do it with computers!"
- Biometry sensible cameras capture „ill-formed" behaviour such as sweating, suspicious rucksacks, mumbling persons...
- Discusion:
  - Where is it ok?
  - How far can you go?
  - Laws and its purpose
  - Semiautomatic prosecution... I mean law enforcement

Traffic surveillance

- AKLS (automatisches Kennzeichenlesesystem)
  - License plate of every car is scanned and compared to police data
  - Original purpose: identify stolen cars, analyze traffic, control toll road
  - Now, a new law should make the collected data accesible to every state authority
  - *"Die Daten dürfen zu keinem Zweck der Strafverfolgung (...) benutzt werden"*
    vs.
    "Die Daten dürfen zu jeglichem Zweck der Strafverfolgung (...) benutzt werden"

Effects of CCTV

- *„Videoüberwachung senkt nicht zwingend ein subjektives Unsicherheitsgefühl,vielmehr werden Kameras als Element wahrgenommen, das auf Unsicherheit hinweist. Videoüberwachung beeinflusst selten ein Raumverständnis zum Positiven, eher bestärkt es negative Vorstellungen von Orten, die über vorangehende Raumwahrnehmungen vorbestimmt sind.(...) Hinsichtlich der Wirkung ist aber festzustellen, dass eine abschreckende Wirkung nicht in dem Maße stattfindet, wie offensichtlich gewünscht und propagiert."*

(http://www1.uni-hamburg.de/kriminol/surveillance/zusammenfassung_dfgzu124-2.pdf)

Effects of CCTV

Data Retention

- A EU policy requires every state to index the telecommunication „headers"

- This applies for emails, telephone calls, internet, instant messaging, mobile phones etc.

- Data of everybody will be stored! (around 500 million people)

- It is not interesting what you do.

- Who is communicating with whom? How long do they communicate? What pages are you looking at?

What might be the problem

- Imagine Bob and Mary. They are together for 4 years now. Bob was 4 weeks on a business trip

- Mary calls gynaecologist and makes a appointment

- After the appointment, she calls a close friend of Bob

- She then chats with some friends

- Finally, she calls an abortion clinic and after that an information hotline of an AIDS activist

- Bob works in a marketing agency...

What might be the problem

- Lawyer
  - They can not call their client in some cases anymore
- Media 🔍
  - How can they promise confidential communication?
- Judges
  - „We know, that you called $insert_political_organisation_here. You are biased.“
- Employees
  - *„You were ill and chatted 3 hours with your mum?“*

Data mass

- Internet
  - Around 500 million people
  - 1 billion computers
  - 10 billion connections a day!
- How can you analyze that?
- You need a incredible large machinery, which automatically filters out the important stuff.
- 99,999% of the population is oberserved
- without any suspicion 🔭

Who will be the „outcome"?

RFID

RFID

- Radio-Frequency-IDentification
- Tags can be attached to products, humans, animals, etc.
- Range for reading:
  - for passive RFIDs 10 m
  - for active RFIDs several kilometers
- Size: smallest 0,05x0,05mm, 7,5 micrometers thin
- Prize: around 5 cent 🔋
- Radio frequency signal induces current and triggers response via antenna, returns unique 128-bit number (passive)

RFID uses

- Passport (visual data, , fingerprints, etc)
- Payment System (transit)
- Product tracking (substitutes barcode)
- Animal identification
- Logistics (inventory)
- Vehicles (car chain, anti-theft-measures)
- Ticketing (Fifa World cup 2006)

Supposed advantages

- Easier theft control (in England people taking razor-blades out of market's shelves were photographed, in order for easier identification of thieves (2003)

- Easier entry control (members of the communist party of China have to wear RFIDs on their clothing in order to control who was attending meetings for how long

- Easier logistic in stores (futurestore in Duisburg)

- Tracking of time in sport events (ChampionChip)

- Money harder to forge (but explicitly easy to track)

Problem 1: Marketing

- Think about the futurestore: reading out all the things you want to buy at once instead of one at a time. If you pay with a credit card, a profile of you as a customer can be easily made (also how long did you stand in which aisle, etc) => aggressive marketing (Minority Report)

- Not only interesting for shops: If you never buy pork, you might be easily interpreted as being Moslem (compare data retention)

- Health Care System may also be interested in the data

Problem 2: Surveillance

- CCTV + RFID: everyone can know in which bus/subway/store you are at what time...

- You might not even now that you are carrying RFIDs (Hugo Boss sewed RFIDs into their clothing, "anti-theft-procedure")

- May lead to complete surveillance of employees (certain enterprises require them to wear RFIDs... measure desk time, break time, etc)

RFID – Privacy invasion

- As stated before, you may not know that you carry any tags. (Did you trigger the theft alarm in a shop?)

- It might be read from a distance without you knowing it. (Passport forging?)

- Together with a credit card/loyalty card, an identity can be attached to an item.

- Globally(!) unique serial numbers.

- What do you think? Something that makes your life easier or more traceable? Both, or even more? (Some people even got this stuff implanted!)
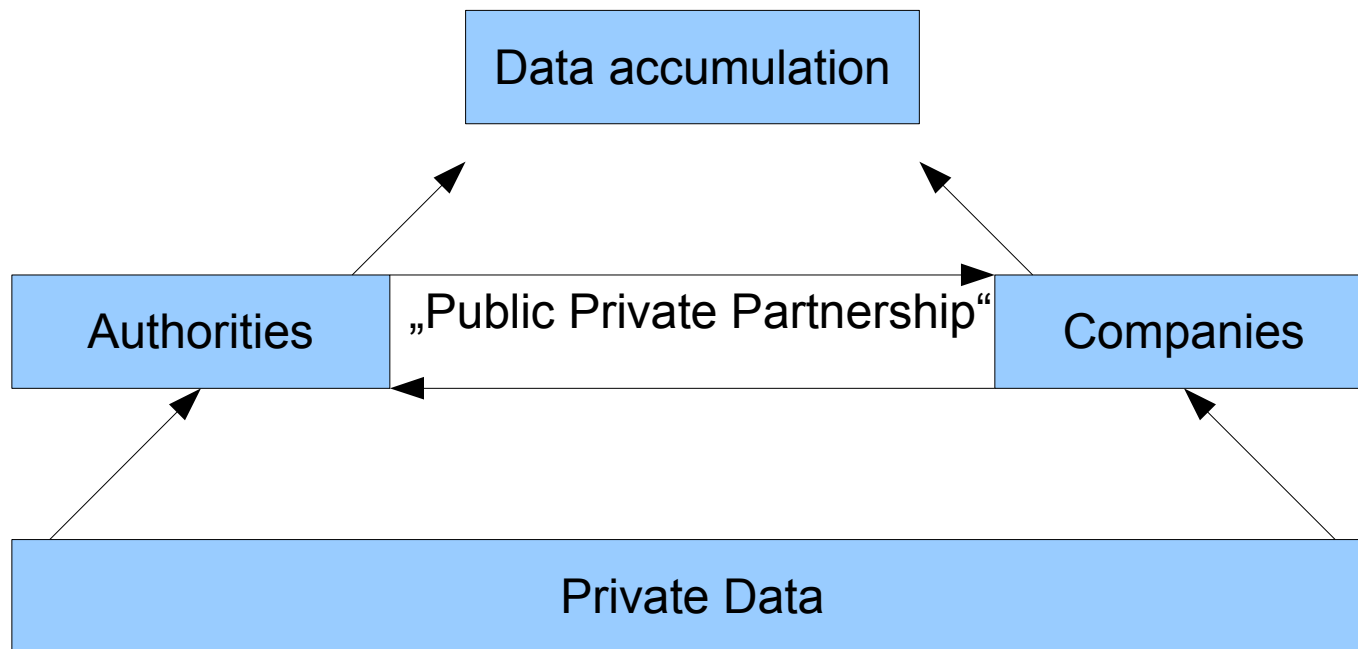
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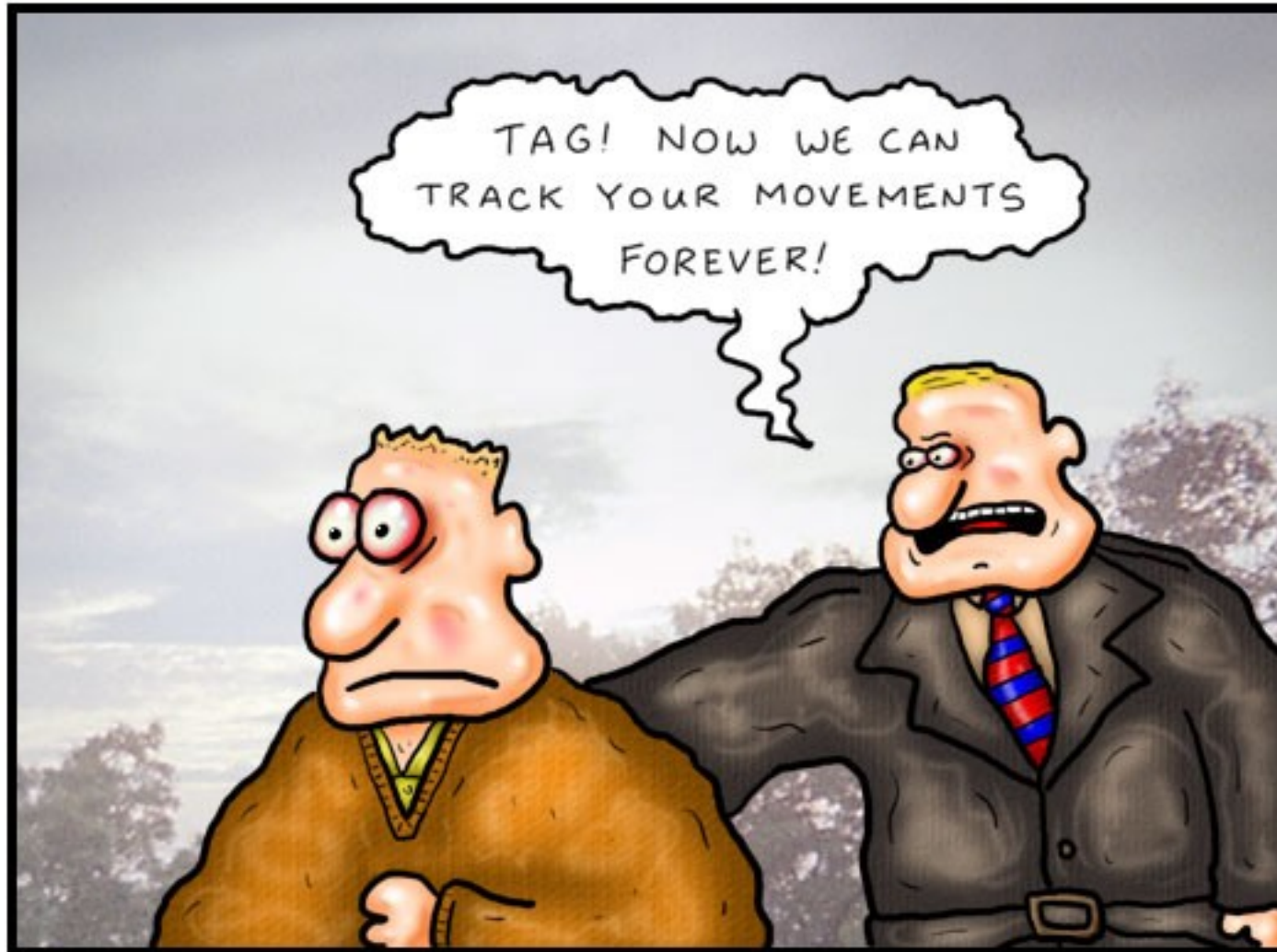
The new fun game of RFID tag

Total Control System?

- More and more private data in governmental agencies

- More and more governmental data in commercial hand

- Companies are building larger conglomerates

What do the people want?

Where are the limits for them?