

@zwnne

INTERNET OF THINGS EVENT  
EINDHOVEN | HIGH-TECH CAMPUS | 2 JUNE 2015

## IoT & Datafication & Big Data & Privacy and Data Protection Law

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## roadmap

A. *WTF is IoT anyhow?*

B. *A very short introduction to privacy and data protection law*

C. *How IoT and Big Data challenge privacy and data protection law*

- *informing datasubjects*
- *and getting their prior opt-in consent*
- *purpose limitation and purpose sepcification*
- *data minimization*



*Armadillo  
elephant*

## A. WHAT IS THE INTERNET OF THINGS..?



the guardian  
 Home Tech World Politics Sport Football Opinion Culture Business All  
 Statement of things  
 Forget the internet of things - we need an internet of people  
 There can be no umbrella, everyday objects are becoming increasingly connected. But the question we need to ask is - should they not?

The internet of things is a vision of ubiquitous connectivity, driven by one basic idea: screens are not the only gateway to the ultimate network of networks.

With sensors, code and infrastructure, any object - from a car, to a cat, to a barcode - can become networked. But the question we need to ask is: should they be? And, if so, how?

It's hard to see what this [the IoT] would look like, exactly. But imagining it shouldn't just be delegated to tech companies and opportunists riding the hype cycle.

Artists, designers, philosophers, lawyers, psychologists and social workers must be just as involved as engineers and internet users in shaping our collective digital future

[J. Judge & J. Powles 25 May 2015]




IoT  
 datafication  
 big data

Staatsblad van het Koninkrijk der Nederlanden  
 302  
 Wet van 6 juli 2000, houdende regels inzake de bescherming van persoonsgegevens (Wet bescherming persoonsgegevens)



B. A VERY SHORT INTRODUCTION TO PRIVACY AND DATA PROTECTION LAW



personal data

- inform data subjects, get their consent for processing their data
- any data about an identifiable natural person
- single-out..?

notice and consent

purpose specification and limitation

- purpose of data collection should be well-defined
- further processing should not be incompatible with purpose of collection

dataminimization

- no more data than necessary for the purpose of processing

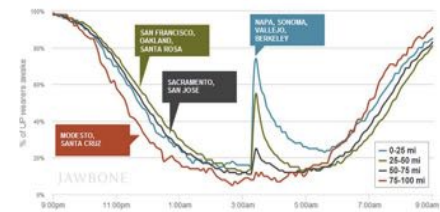
etc.



# C. HOW IOT AND BIG DATA CHALLENGE DP LAW



every **breath** you take  
every **move** you make  
every **bond** you break  
every **step** you take...



datafication [*dey•tuh•fi•key•shuh•n*]

a modern technological trend turning many aspects of our life into **computerized data** and transforming this information into **new forms of value** [Mayer-Schönberger & Cukier 2013]



Big Data  
**Big Bullshit?**  
Big Bucks!

Big Data  
**Big Brother?**  
Big Business!

Big Data is a generalized, **imprecise term** that refers to the use of large data sets in data-science and **predictive analytics** [Mayer-Schönberger & Cukier 2013]

Big data can be used to identify more general trends and correlations but it can also be processed in order to **directly affect individuals** [WP29 2013]

...a massive phenomenon that has rapidly become an **obsession** with entrepreneurs, scientists, governments and the media [Financial Times 2014]

unprecedented computational power and sophistication make possible **unexpected discoveries**, innovations, and advancements in our quality of life [Whitehouse 2014]



Centrum raaden op voor de zorg die het kabinet Rutte wettigt

## Probleemgezin kost 40.000 euro

Centraal Instituut voor Toetsontwikkeling

Leger des Heils

Bureau Jeugdzorg

Geestelijke Gezondheidszorg (GGZ)

woningbouw corporatie

energiebedrijf

wie komt in aanmerking voor bemoediging?

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*Systeem Risico Indicatie (SyRI) is een instrument waarmee gegevensbestanden van gemeenten, UWV, SVB, Inspectie SZW en Belastingdienst kunnen worden gekoppeld ten behoeve van de bestrijding van fraude op het terrein van de sociale zekerheid en de inkomensafhankelijke regelingen, de belasting- en premieheffing en de arbeidswetten*

sinds 2006 in gebruik onder de aanduiding 'Black Box'...

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The main advantage of Big Data is that it can reveal **patterns** between different sources and data sets, enabling **useful insights**

The use of Big Data by the top 100 EU manufacturers could lead to savings worth **€425 billion**, and by 2020, Big Data analytics could boost EU economic growth by an additional **1.9%**, which means a GDP increase of **€206 billion**

[EC The EU Data Protection Reform and Big Data Factsheet April 2015]

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THE PROBLEM  
THE CHALLENGE...

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correlation  $\neq$  causation



in a big-data age most innovative secondary uses [of data] haven't been imagined when the data is first collected. How can companies provide notice for a purpose that has yet to exist? How can individuals give informed consent to an unknown...?

free, specific, informed and unambiguous 'opt-in' consent would almost always be required, otherwise further use cannot be considered compatible

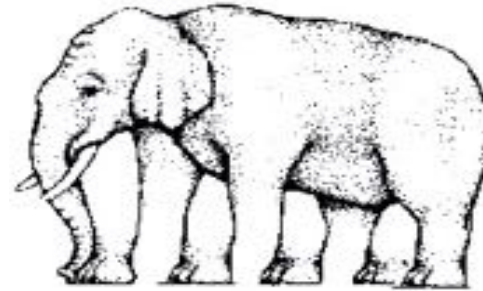
[WP29 2013]

[Mayer-Schönberger & Cukier 2013]

personalization  
stigmatization  
discrimination  
presumption of  
innocence  
etc



an elephant in the room



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THANK YOU!