

Big Data and Personal Data Protection Challenges and Opportunities

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- 1. Big Data: Big Legal **Uncertainty?****
- 2. Principles of **Data Protection****
- 3. Emerging **Regional Tendencies****

1. Big Data: Big Legal Uncertainty?

Big Data analytics

Capture, aggregate and process **large** amounts of data to uncover **hidden patterns**, **correlations** and other insights



rely on **powerful processors**
and **algorithms**

characterised by **high**
Velocity, Variety and
Volume in order to **extract**
high Value



Definitional Vagueness

Big Data

“Big Data is like teenage sex; everyone talks about it, nobody really knows how to do it, everyone thinks everyone else is doing it, so everyone claims they are doing it.”

*-Dan Ariely, Duke University
Director of the Center for Advanced Hindsight*

valuable insight

By combining **personal** and **non-personal** data, Big Data analytics can uncover **patterns** and **predict** *e.g.* what **individuals will do**

- 1. Personal** data frequently feed big data analytics
2. Patterns and correlations are inferred *ex post*

not possible to communicate the
reason and **purpose** of the
analyticsn in order to request
CONSENT *ex ante*

2. Principles of Data Protection

Data Privacy

legal **protection** to individuals
against the **inappropriate use** of
technology for processing **information**
relating to them

Goal

Strike **fair balance** between
individual **privacy** and the **free**
flow of information

The goal is **not** to **prevent** the
processing of personal data

BUT

To provide **safeguards** whenever
information technology is used
for personal data processing

The **Notice and Consent** approach

First designed in the 1970s

Growing use of **automated systems** aimed at **collecting** and **processing data** about individuals



THE PRIVACY ACT OF 1974



1974 U.S. **Privacy Act**

Fair Information Practice Principles

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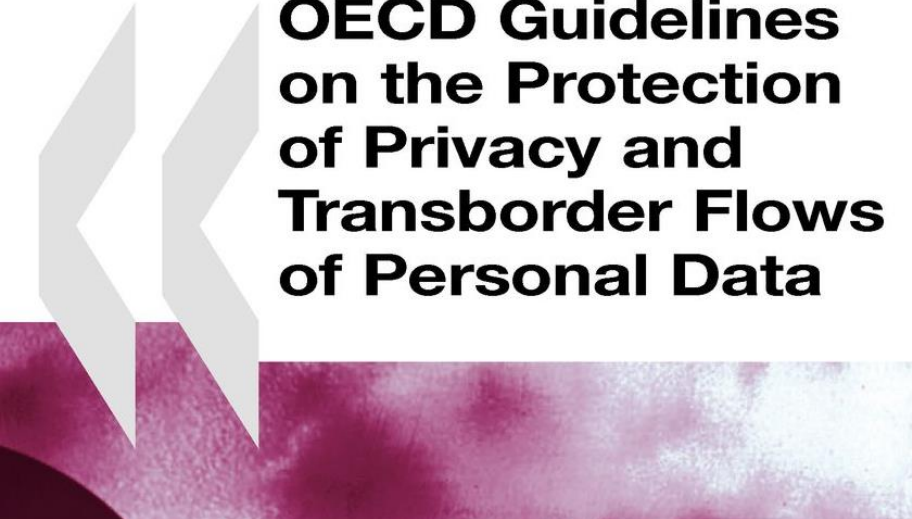
ina.fr

1978:

French *Loi Informatique et Libertés*



Commission Nationale de l'Informatique et des Libertés



OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data

Convention
for the Protection of Individuals
with regards to Automatic
Processing of Personal Data
and Protocol thereto

COUNCIL OF EUROPE



CONSEIL DE L'EUROPE

“*Census*” Decision

German Constitutional Federal Court, 1983

"Informational Self-determination"

Individual right to oversight and control on what personal information about us is accessible and how can be used

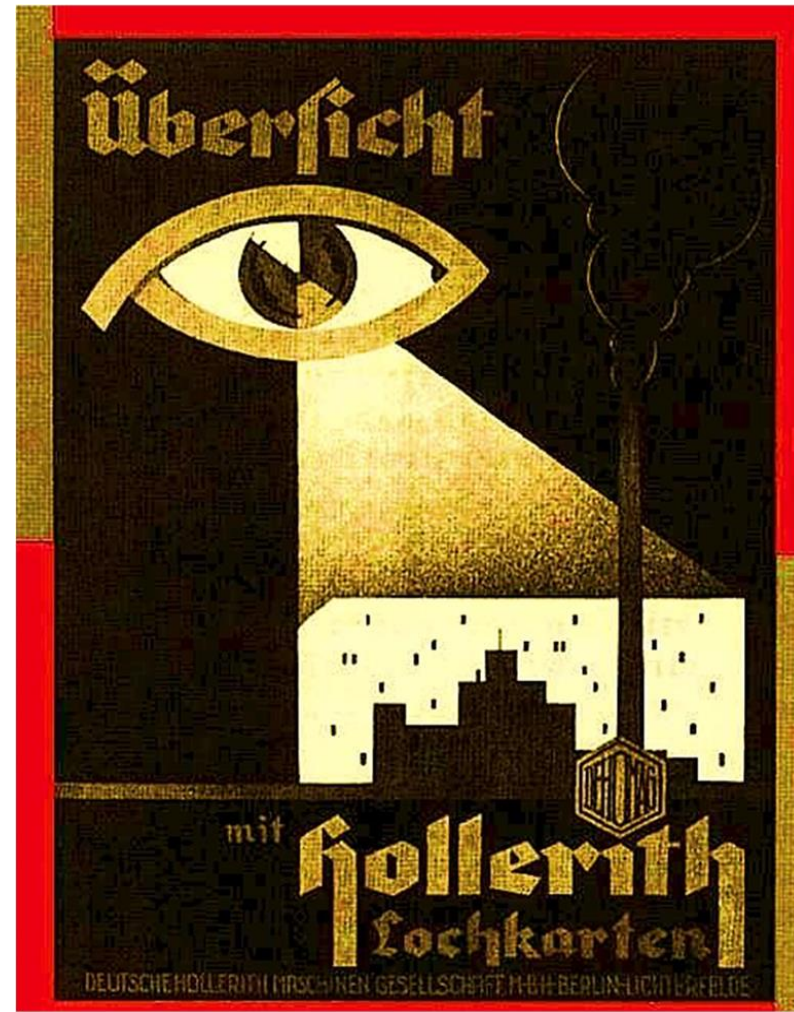
IBM supplied Hollerith punched card devices to Nazis for census management, to

“report every **individual characteristic** on a little card”

and

“**sort cards** according to certain characteristics”

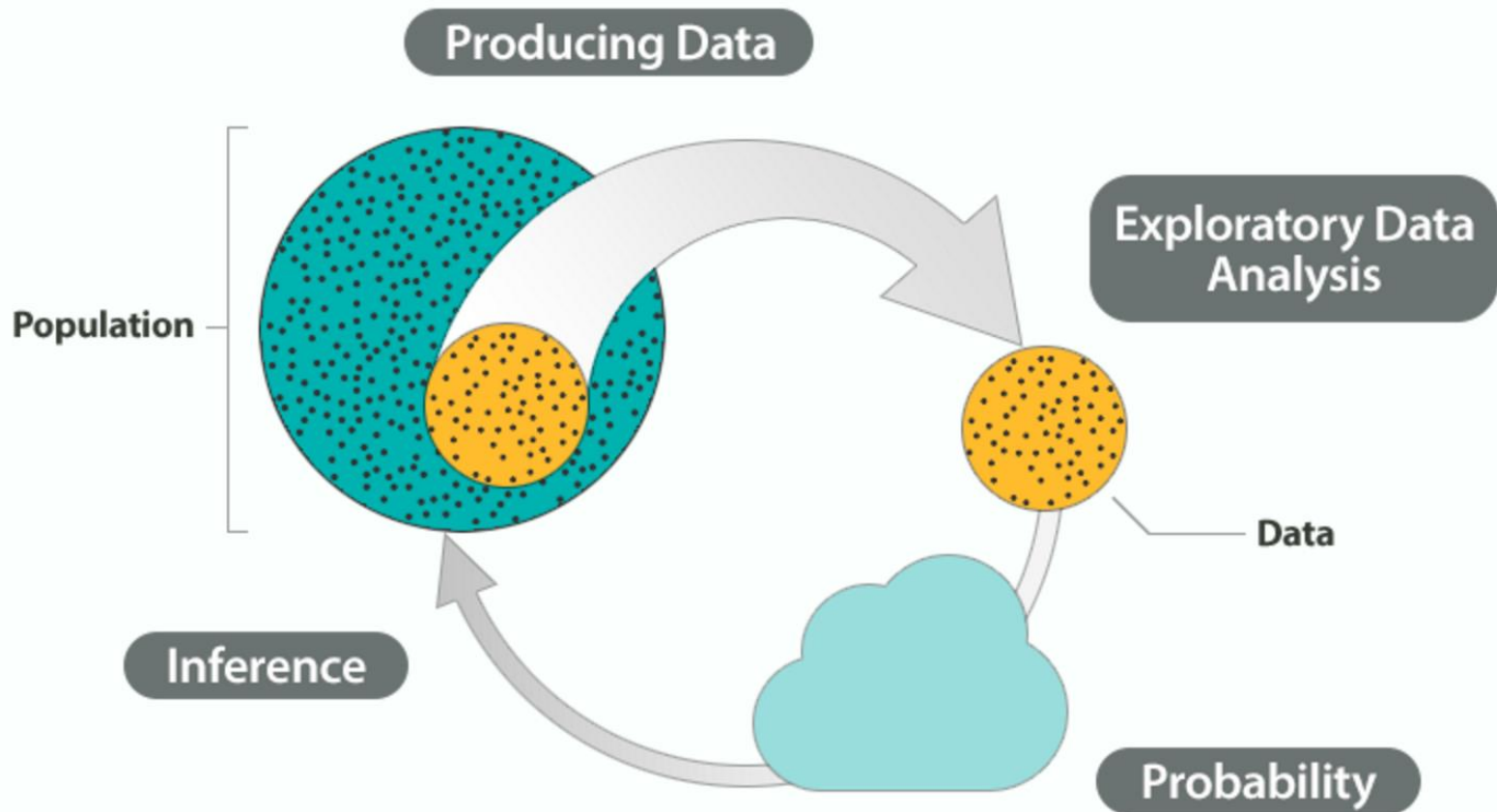
Willy Heidinger



Privacy **self-management**

Implementation of Informational Self-determination

Only those who are **properly notified** of the **reason, context,** and **purpose** of their personal data collection and processing will be able **decide freely** whether to **consent** or not to such activities



free, specific, informed and **unambiguous**
consent?

purpose **limitation**?

transparency?

3. Emerging **Regional** Tendencies

Big Problem:

Big Data collection and analysis can happen without the knowledge, consent, or understanding of data subjects.

USA:

**no comprehensive federal data
protection law**

Sectoral laws *e.g.* Fair Credit
Reporting Act; Equal Credit
Opportunity Act

Data privacy is under the **general
protection of Courts**

Europe:

Personal data protection is a specific **fundamental right**

General Data Protection Regulation
2016/679

- **T**ransparency,
- **d**ata **m**inimisation,
- **p**roportionality,
- **p**urpose **l**imitation,
- **c**onsent,
- **a**ccountability,
- **d**ata **s**ecurity,
- **r**ights of data **a**ccess, **c**orrection and **e**rasure,
- **E**nforcement through economic **s**anctions

GDPR compliance demands clear **insight**
on **what** personal **data** are managed,
where and **how**

A challenge but also an **opportunity**:

updating data governance means **more
insight** on one's **data assets**

Brazil:

**New general data protection
legislation**

law 13.709/2018

Largely based on GDPR

Art. 2º A disciplina da proteção de dados pessoais tem como fundamentos:

I - o respeito à privacidade;

II - a autodeterminação informativa;

III - a liberdade de expressão, de informação, de comunicação e de opinião;

IV - a inviolabilidade da intimidade, da honra e da imagem;

V - o desenvolvimento econômico e tecnológico e a inovação;

VI - a livre iniciativa, a livre concorrência e a defesa do consumidor; e

Both **GDPR** and the Brazilian law (**LGPD**) do not apply to data that have been **anonymised**

GDPR recital 26:

data protection should therefore not apply to **anonymous information**, namely information which **does not relate** to an **identified or identifiable** natural person or to personal data rendered anonymous in such a manner that the **data subject is not or no longer identifiable**

GDPR Recital 26

This Regulation does not therefore concern the processing of such anonymous information, including for statistical or research purposes.

LPDP art 5.III

anonymised data: data relating to a data subject that **can not be identified**, considering the use of **reasonable technical means available** at the time of treatment

LPDP art 7.

The **processing** of personal data **may only be carried out** in the following cases:

[...]

IV to carry out **studies** by a **research body**, guaranteed, whenever possible, the **anonymisation** of personal data;



Luca Belli, Molly Schwartz, Luiza Louzada.
(2017)

Selling your soul while negotiating the conditions: from notice and consent to data control by design.

Health and Technology. Special Issue on Privacy and Security of Medical Data

tinyurl.com/BelliDataControl

SPRINGER NATURE

Thank **you** for **your**
attention!

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