Big Data and Personal Data Protection Challenges and Opportunities

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Luca Belli, PhD
luca.belli@fgv.br
@1Lucabelli
1. Big Data: Big Legal Uncertainty?
2. Principles of Data Protection
3. Emerging Regional Tendencies
1. Big Data: Big Legal Uncertainty?
Term utilised since the 1990s and features in numerous official documents
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 one 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.

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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 analytics 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

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1974 U.S. Privacy Act
Fair Information Practice Principles
1978:

French *Loi Informatique et libertés*
OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data
“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

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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
• Transparency,
• data minimisation,
• proportionality,
• purpose limitation,
• consent,
• accountability,
• data security,
• rights of data access, correction and erasure,
• Enforcement through economic sanctions
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;

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
Thank you for your attention!

Luca Belli, PhD
luca.belli@fgv.br
@1lucabelli