

Data Autonomy

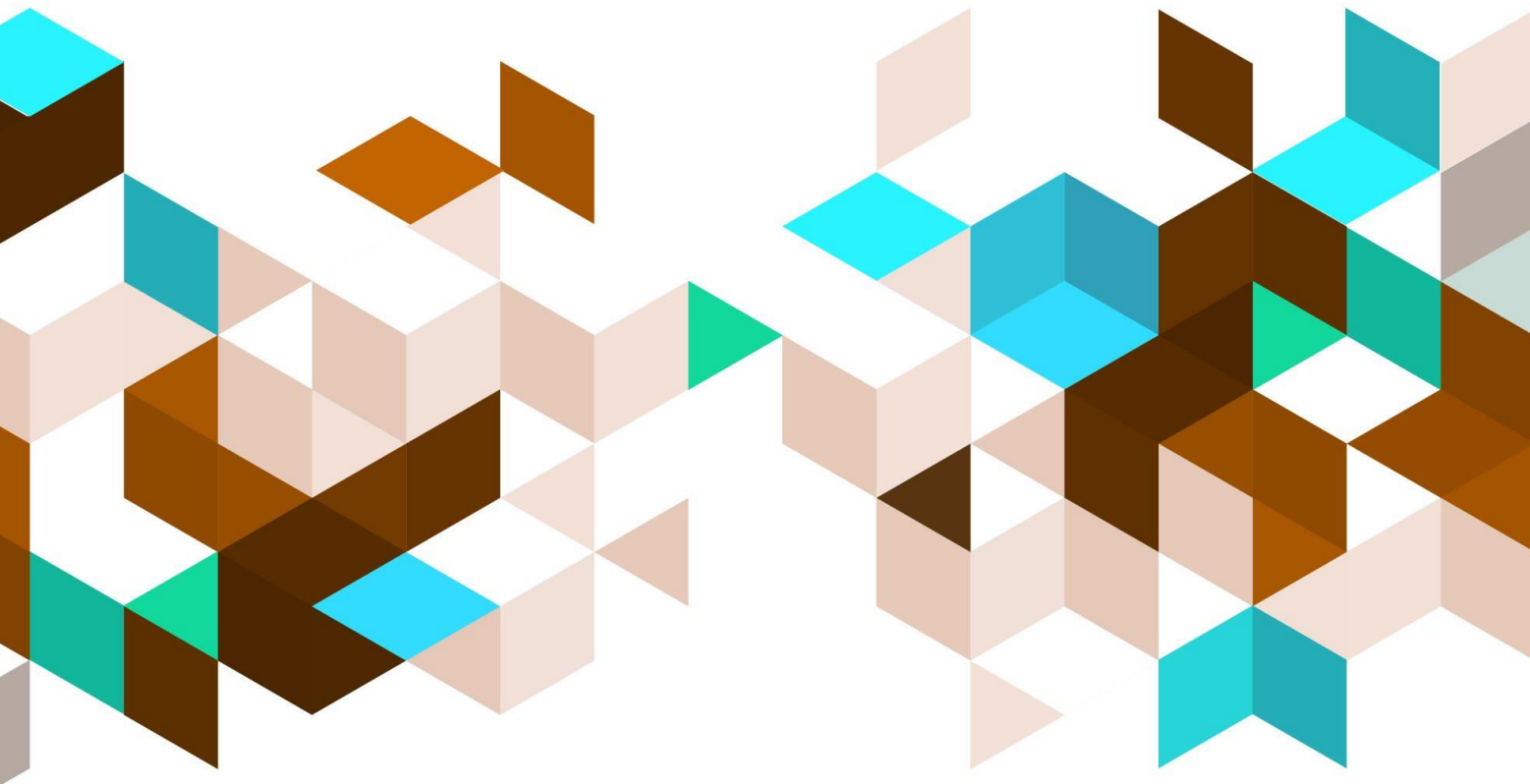
A novel approach to informational self-determination
and organisational freedom

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Data Autonomy is the capacity of a person, or a group, to make meaningful decisions about their data.

Working definition

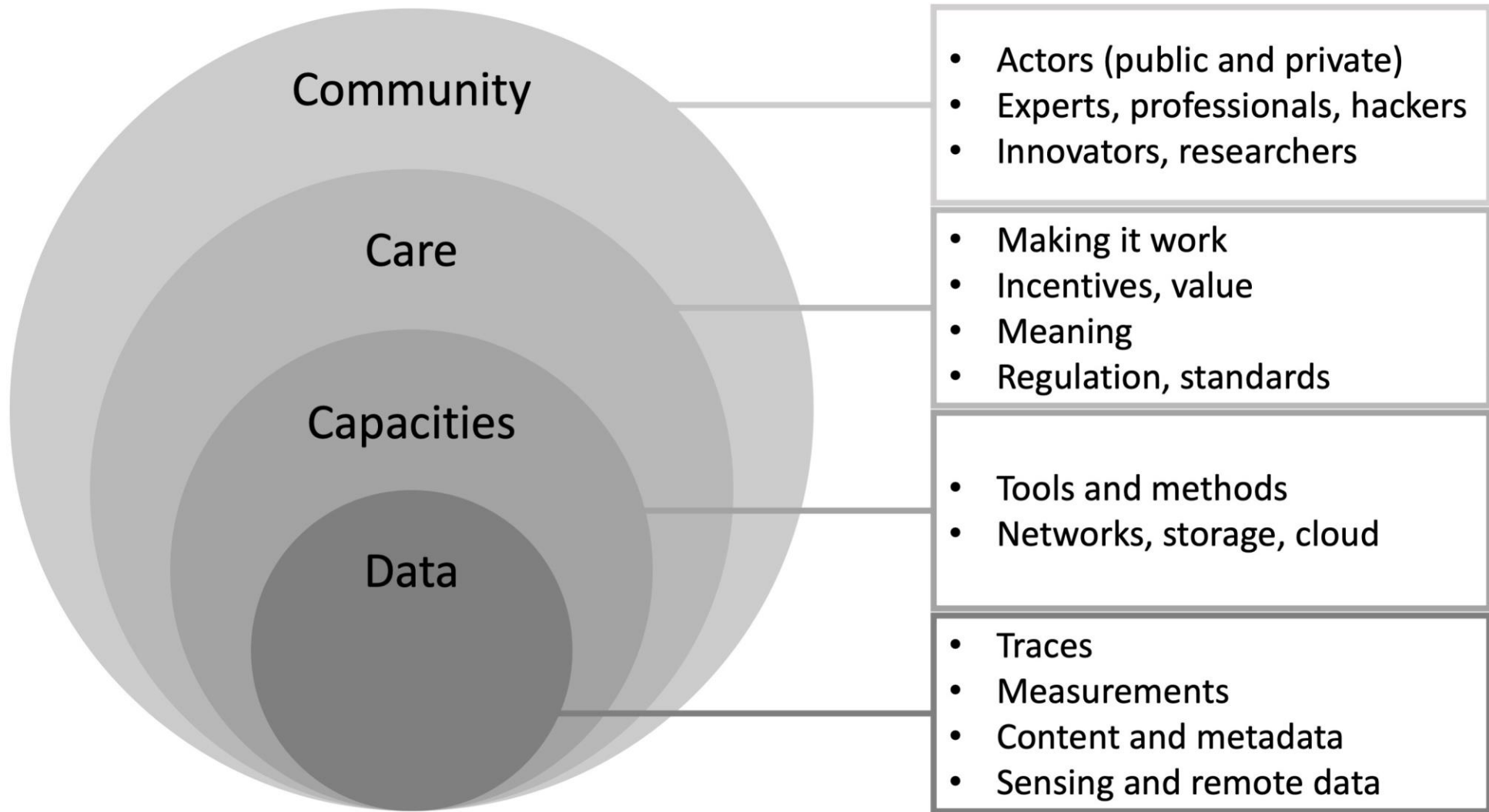
Why this debate?

- I. Re-conceptualisation of 'privacy'
- II. Digital sovereignty
- III. Value (human rights) driven design of data infrastructure



I. Re-conceptualisation of 'privacy'

Gstrein, O. J., & Beaulieu, A. (2022). How to protect privacy in a datafied society? A presentation of multiple legal and conceptual approaches. *Philosophy & Technology*, 35(1), <https://doi.org/10.1007/s13347-022-00497-4>



Layers of datafication (Beaulieu & Leonelli 2021)

Legal & Conceptual Approaches

- Privacy as individual right
- Data Protection
- Habeas Data
- Informational Self-Determination
- Differential privacy
- Contextual integrity
- Group privacy
- Conceptualisations based on indigenous identities
- Data autonomy?

Take aways

Privacy as proxy
for relationship
individual/society

Personal/collective
identity as
datafication

Static labelling vs.
flowing data (e.g.
consent)

New substantive
concepts are
emerging

Identify synergies
(e.g.
interdisciplinary,
intercultural)

Issues with mainstream approaches

- Why to 'protect' 'personal' data?
 - Schutzgutdebatte
- How does data protection respond to the datafication of society?
 - Can we stop to statically label data?
 - How to address algorithmic inferences & 'big nudging'?
 - [EU AI Act](#) (draft)
 - Prohibition social credit score
 - Prohibition subliminal techniques beyond a person's consciousness
 - Prohibition of systems which exploit any of the vulnerabilities of a specific group of persons
- Could we move away from an individual conception to a more community oriented approach?

Technology is primitive

- Entwined dynamics
 - Digital technology is binary, 1 or 0, black or white.
 - ‘Total’ Datafication. Everything is data.
- Result: Losing the ‘grey area’, which is essential for privacy/autonomy.
 - In Floridi’s ([2016](#)) words, the space for ‘polytropos’ disappears, which undermines human dignity.
 - No floating statuses of decision-making.
- Appeal: Technology needs to embed uncertainty.
- Smart Cities: Use the lense of ‘public space’ whether grey area still exists.

Data Autonomy

- Based on ‘informational self-determination’ (1983)
 - Raison d’être is human dignity
 - Development of personality
- Three extensions
 - The scope of data autonomy expands to private actors, in cases where those are particularly powerful.
 - Beyond individual rights and duties, including organisational autonomy as an enabler for individual autonomy.
 - Data autonomy addresses harmful inferences resulting from the use of systems based on machine learning or artificial intelligence.

II. Digital sovereignty

Gstrein, Oskar Josef, Data autonomy: Recalibrating strategic autonomy and digital sovereignty (May 10, 2023).
Draft prepared for European Foreign Affairs Review, special edition on
'Comprehensive Security: The Legal Contours of EU's Strategic Autonomy', [forthcoming 2023](#)

Digital sovereignty

- Sovereignty back as of 2010s in discussion (Pohle & Thiel, [2020](#))
 - No longer cyber exceptionalism
 - No longer multi-stakeholder
- Digital sovereignty (claims) are predominantly a discursive tool to support a variety of narratives and objective (Meiring et al. 2023)
 - ‘technological sovereignty’
 - ‘data sovereignty’
- Extremely vague, nationalist tendencies, protectionism

Digital sovereignty in EU

- In EU rather ‘strategic autonomy’
- Problematic for EU as multilateral organisation with supranational nucleus
- But mixed/confused approach
 - [Gaia-X](#)
 - Can Amazon, Microsoft, Google join?

FEDERATED DATA

INFRASTRUCTURE

The case of public universities

- Data Autonomy Project – CIT/University of Groningen
 - UVA report
 - SURF/GEANT
 - CPDP panel Brussels on 25 May 2023
- Dependency on Big Data infrastructure
- Academic freedom
 - Individual
 - Organisational

Gstrein, O. J. (2023). Digital cloud services and higher education: the quest for data autonomy. *Ars Aequi*, 72(April 2023), [266-270](#).

Questions of stakeholders

How can we make sure that students have an environment where they can learn, develop, and fail safely? This means without data traces and measurements that profile or follow students for the rest of their lives.

How can we keep a considerable stake in the design of teaching and research practices – driven by the curiosity and talent of independent academics – rather than by corporate interests?

How can we foster ownership of research results and data sets, instead of promoting the interests of big publishing houses and obscure data brokers? - How can we make sure the value of data is supporting the fruitful development of the academic community sustainably?

How can we make sure that our data is (not) being (ab-)used to train and develop AI/Machine Learning systems which (do not) respect, protect and promote the values of the academic community?

How can we create an environment for respectfully discussing bold and controversial ideas?

The background of the slide is a dark, textured pattern composed of numerous small, semi-transparent triangles in various colors including shades of green, blue, purple, and pink. These triangles are arranged to form a large, abstract shape that resembles a forest or a mountain range, with the density and height of the triangles increasing towards the top center.

III. Value (human rights) driven design of data infrastructure

Methodologies

Data Protection Impact Assessment (GDPR)

Conformity Assessment (AI Act)

The background features a light beige gradient. On the left, several white, 3D-rendered cubes of varying sizes are scattered, each connected to a thin white line that trails off. On the right, a network diagram is visible, consisting of white dots connected by thin white lines, forming a complex web of connections.

Let's keep in touch

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