

Are New Rights the Way to Mental and Brain Privacy?

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Privacy, Neurotechnologies and Neuroethics

The potential to collect brain data

- More directly
- Higher resolution
- In greater amounts

Assumptions:

- Information about the brain is particularly revealing,
- Less subject to conscious control,
- Unusual uncertainty about what can be inferred from it
- Information to be protected not easily distinguishable from the individual's neural processing.
(Ienca and Andorno, 2017)



Privacy and Neuroethics

INFORMATIONAL PRIVACY

“control over information about oneself” (Ienca and Andorno, 2017)

“right that others not access one’s personal information and personal space” (Goering et al., 2021)

“right for individuals to establish their boundaries and dynamics with others” (Schönau et al., 2021)



Mental and Brain Privacy: New Rights?

Right to Mental Privacy

“aims to protect any bit or set of brain information about an individual recorded by a neurodevice and shared across the digital ecosystem”

Right to Brain Privacy

“aims to protect people against illegitimate access to their brain information and to prevent the indiscriminate leakage of brain data across the infosphere.”

(Ienca and Andorno, 2017)



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New Rights: Are they Really Needed?

- Theory of mind → morally unproblematic
- Direct access? → neurotechnologies rely on a series of different steps to the process data that is delivered to us the human users
- Other less invasive and costly technologies already invade our privacy
- Other human rights and laws could protect neural data



Contextual Integrity

- Does the technology cause new information or new kinds of information to flow?
- Does the technology cause information flow between new or different actors?
- Does the technology cause the way information flows—the “terms and conditions” according to which it flows—to change?



Contextual Integrity

Contexts – differentiated social spheres defined by important **purposes, goals, and values**, characterized by distinctive ontologies, **roles** and **practices** (e.g. healthcare, education, family); and **norms**, including **informational norms** — implicit or explicit rules of info flow.

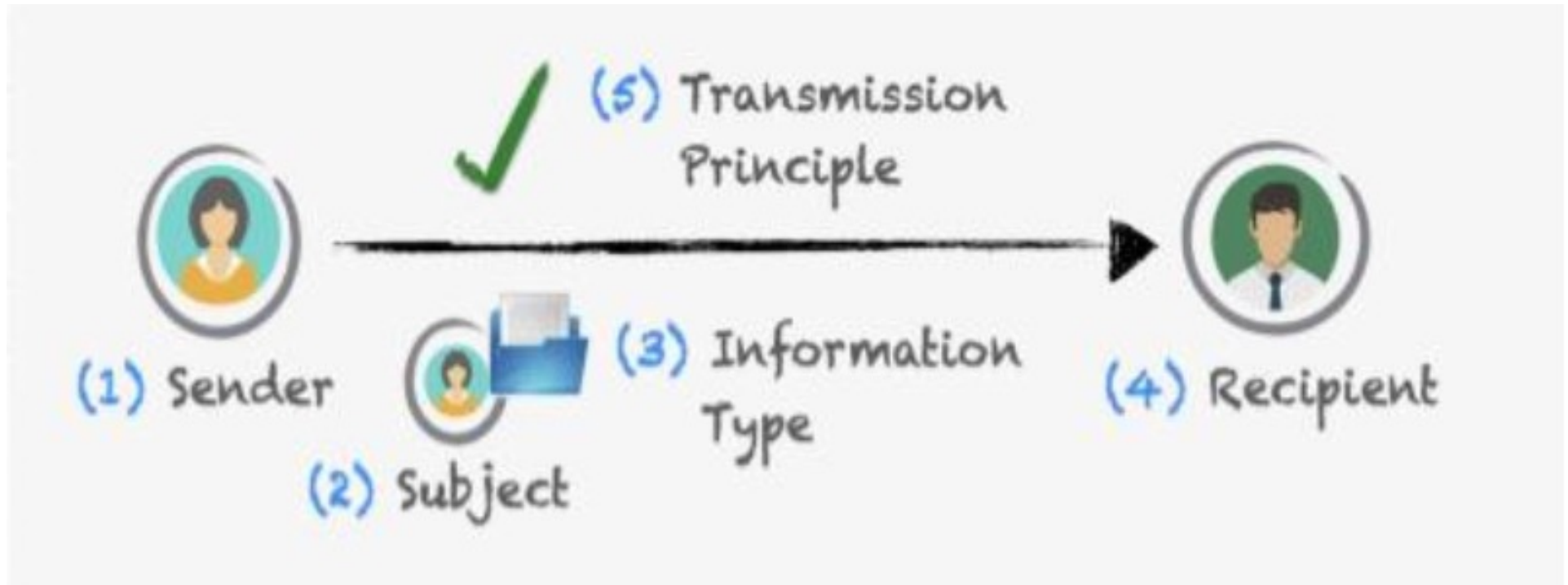
Privacy: appropriate flow of information

Appropriateness: informational norms in a given context

Information Norms: 5 key parameters



Contextual Integrity: 5 Key Parameters



Nissenbaum, H. (2010). Privacy in Context: Technology, Policy, and the Integrity of Social Life. Stanford University Press.

Parameters

Values

Actors

Sender
Recipient
Subject

- Physician, bank, friend, shopper, reader, voter, insurance company, parent, student, teacher

Information Types

- Demographic, biographical, purchases, salary, address, medical diagnosis, grades, personal preferences

Transmission Principles

- Consent, coerce, compel, buy, sell, with authorization, as required by law, reciprocal



Implications

- As of today, privacy violations brought forward by neurotechnologies are no different in kind from the threats posed by other digital technologies
- Right to brain and mental privacy → no different from information privacy rights understood more broadly.
- A focus on mental/brain privacy rights risks weakening efforts to enact more robust privacy law and policy.



Thank you



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