COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

Strasbourg, 21 October 2024 T-PD(2024)2

CONSULTATIVE COMMITTEE OF THE CONVENTION FOR THE PROTECTION OF INDIVIDUALS WITH REGARD TO AUTOMATIC PROCESSING OF PERSONAL DATA

CONVENTION 108

Draft Guidelines on the use of Neurotechnology and Neural Data from the Perspective of Convention 108

www.coe.int/dataprotection

Introduction & Content

Neurotechnology is an overarching term that encompasses a broad range of devices, tools, systems, and algorithms designed to understand, influence, monitor, access, assess, emulate, simulate, or modulate the structure, activity, and function of the nervous systems in humans and other animals. These technologies represent significant advancements in neuroscience, enabling unprecedented insight into neural functions and offering new ways to interact with neural processes.

The field of neurotechnology includes a wide variety of innovations, among which neural interfaces (NIs) stand out as one of the fastest-growing and most disruptive subfields. Neural interfaces are devices placed either within or external to the nervous system, capable of recording, decoding, or stimulating neural activity. These interfaces can engage with both the central nervous system (CNS) and the peripheral nervous system (PNS). This capability raises essential considerations regarding the categorization of neural data, particularly in distinguishing whether such data should be classified as personal data or belong to other categories.

Neural Data: What It Is and Why It Matters

Data captured through neural interfaces is commonly referred to as "neural data." This type of data provides quantitative measurements regarding the structure, activity, and function of the nervous system—both central and peripheral—within a living organism. The ability to decode or modify neural data implies the potential to influence cognitive and emotional processes, which can, in turn, affect mental states. In this context, mental states are understood as collections of mental representations and propositional attitudes within the human mind, related to activities such as thinking, remembering, planning, perceiving, and feeling.

The unique properties of neural data, particularly in comparison to other forms of data, present distinct challenges when it comes to privacy. Neural data carries profound implications for human rights, especially concerning personal data protections.

Human Rights and Neural Data: Navigating the Legal Landscape

Given the sensitive nature of neural data and its potential to affect individual autonomy and privacy, it is crucial for states to ensure that individuals can fully enjoy their human rights. This includes the right to personal data protection, even when neural data is collected and utilized. The guidelines herein propose a set of actions that governments, developers of neurotechnologies, and entities employing these technologies should follow to address these concerns.

At the heart of these guidelines is the recognition that neural data presents unique privacy challenges. In light of Convention 108, a legally binding instrument dedicated to protecting individuals' privacy rights, it is imperative to analyze how the collection and use of neural data intersect with existing legal frameworks. Furthermore, these guidelines should not be interpreted as undermining or limiting the principles outlined in Convention 108 and its modernized version, Convention 108+.

By adhering to these guidelines, governments, developers, and other stakeholders can work together to protect the privacy rights of individuals while promoting the responsible and ethical use of neurotechnologies.

Convention 108 provides a robust framework for addressing the data privacy implications of neural data, highlighting the importance of protecting individuals' privacy rights while promoting scientific progress and innovation in neuroscience.

In conclusion, these Guidelines interpret the convention to adapt and to reflect the complexities of neurotechnologies.[1]

[1] These guidelines build upon a 204 report by Eduardo Bertoni and Marcello Ienca, "The privacy and data protection implication of the use of neurotechnology and neural data from the perspective of Convention 108", available at https://www.coe.int/en/web/data-protection/-/the-privacy-and-data-protection-implication-of-the-use-of-neurotechnology-and-neural-data-from-the-perspective-of-convention-108 . This Draft also took into consideration the comments received during the Bureau Meeting, Venice, October 2024.

GUIDELINES

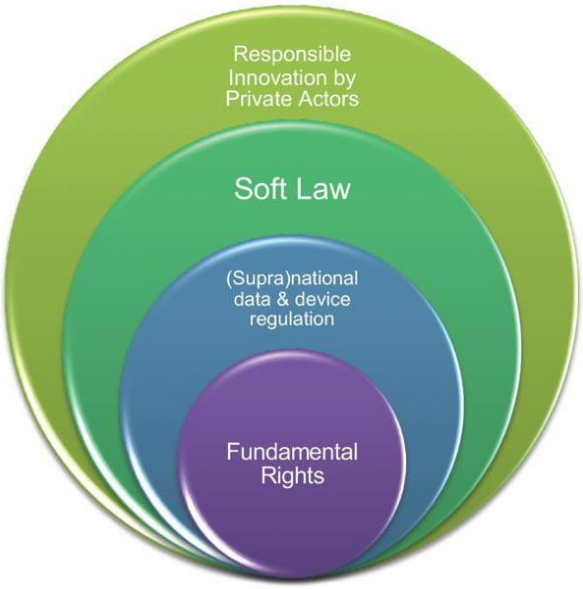

Figure 1- Multi-level Governance of Neurotechnology (re-used with acknowledgment from Ienca 2021)