

# UNESCO's recommendation for Neurotechnology Use

**Prelims:** Current events of national and international importance | Science & Technology

### Why in news?

UNESCO issued the 1<sup>st</sup> global normative framework on the ethics of neurotechnology on November 5 and enter into force on November 12.

- Neurotechnology Refers to devices and procedures that <u>access</u>, <u>assess</u>, <u>and act</u> on neural systems, including the human brain.
- **Applications** For treating neurological disorders, brain injuries, mental health, brain-computer interfaces for mobility and communication, for adaptive learning systems, neurofeedback, etc.

## **Key Recommendations**

- It is designed to maintain a *balance between innovation and human rights* to protect the human brain and brain-related data from misuse.
- 3-pronged strategy -
  - $_{\circ}$   $\boldsymbol{Define}$  neurotechnology and neuro-data scope.
  - Identify values and guide national integration (esp. in health, education).
  - **Protect** vulnerable groups (children, elderly).
- Focus areas Human dignity, human rights, gender equality, social and global justice, and sustainable development, and
- Core Principles -
  - $_{\circ}$  Beneficence, proportionality, no harm, autonomy, freedom of thought
  - Protection of neural data, non-discrimination, inclusivity, accountability, trustworthiness, transparency
  - Epistemic justice and intergenerational protection
- **Prohibited Practices** Manipulative or deceptive use of neural/non-neural data in political campaigns, medical and commercial contexts.

#### Global measures

- Chile 1<sup>st</sup> country to protect "mental integrity" in its Constitution.
- California (2024) Enacted law safeguarding brain data from misuse by neurotech firms.
- Organization for Economic Co-operation and Development (OECD)
  - In 2019 developed the 1<sup>st</sup> international standards on 'Responsible Innovation in Neurotechnology Enterprises' -
    - Focused on the "responsible development & use" of novel technologies via responsible technology transfer.
- UNESCO's 2022 Bioethics Report Called for a comprehensive governance framework for neurotechnology.

### Reference

The Hindu | UNESCO recommendations for neurotechnology use

