

UNESCO's recommendation for Neurotechnology Use

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

Why in news?

UNESCO issued the 1st 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 **access, assess, and act** 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** -
 - **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** -
 - 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** - 1st 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 1st 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](#)

