Houston Area Model United Nations
Standard Committee

CSTD



Chair | Anthony Rodas-Camacho
Topic A: Safeguarding Mental Privacy & Security in Neurotechnology
Houston Area Model United Nations 52
February 4 & 5, 2027

Note to Delegates

Delegates,

Welcome to HAMUN 52! I am thrilled to have you as part of the Commission on Science and Technology for Development (CSTD)—truly one of the most exciting committees at this conference.

My name is Anthony Rodas-Camacho, and it is an honor to serve as your chair. To tell you about me: I'm a freshman at Brown University in Providence, RI, studying neuroscience and public health on the pre-medical track. Originally from Houston, TX, I've participated in HAMUN for three consecutive years, one of which was in this very committee. Though I'm a self-proclaimed science nerd, I've always been captivated by international affairs, especially how technology, science, and medicine shape the way people live globally. HAMUN has consistently been a space for exploration, growth, and thoughtful (and respectful) debate, which is exactly why I'm so excited to be back!

I chose to chair CSTD specifically because its topics are not only fascinating, but essential to understand in our rapidly evolving, digital world. Throughout this conference, I look forward to watching you explore emerging technologies from every angle; celebrating innovation while also grappling with the real questions it raises around access, equity, sovereignty, and human rights. I can't wait to see how you approach them!

My biggest piece of advice is to truly enjoy every moment of this experience. Prepare thoroughly, dive deep into your research, and come ready to make the most of your time here. Build friendships that last well beyond this weekend, advocate boldly for what your delegation believes in, and never hesitate to make your voice heard. HAMUN is a tremendous opportunity for growth, and I hope you embrace it fully. Please don't hesitate to reach out with any questions or concerns along the way!



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CSTD Background & History

The United Nations Commission on Science and Technology for Development (CSTD) is the UN's main forum of discussion regarding the implications of science, technology, and innovation on development. As a subsidiary body of the Economic and Social Council (ECOSOC), it holds an annual reunion in order to debate prominent concerns about scientific and technological development [2].

The CSTD does not issue binding regulations or write wide-reaching treaties—instead, it functions as the body of high-level advice through analytic research and policy recommendations for the General Assembly (GA) and ECOSOC. write treaties or issue binding rules [3]. It also represents the platform where nations can raise concerns on challenges which impede developmental opportunities in this rapidly-evolving, technological world [1].



Source: https://unctad.org/topic/commission-on-science-and-technology-for-development

In other words, CSTD acts as a bridge between technology and diplomacy, where new innovations—like artificial intelligence, brain-computer interfaces, and genomic editing—reshape culture, economics, and geopolitics. Hence, CSTD is the hotspot for intersecting conversations between governments, scientific experts, and societal benefactors can better understand the implications for development and how the government should intervene.

Historically, CSTD can pay its respects to the 1979 UN Conference on Science and Technology for Development in Vienna, in which an Intergovernmental Committee on Science and Technology for Development was born. In 1992, the GA decided to convert the committee into a functional commissioniary body of ECOSOC—now CSTD [1]. While the annual sessions in Geneva focus largely on draft ECOSOC resolutions and advising, the 2003-2005 World Summit on the Information Society (WSIS) represented a turning point in focus [2]. Every year, CSTD reviews efforts to progress WSIS goals such as closing the digital divide in developing nations, ensuring universal access to internet, and the application of digital tools in climate change [4].



Source:https://dig.watch/updates/unga-resolution-establishes-intergovernmental-committee-on-international-tax-cooperation

Now, the CSTD has three main roles. Firstly, it reviews how the WSIS goals are being carried out regionally and internationally. Secondly, it explores science, technology, and innovation (STI) more generally, including a large focus on the development of "frontier technologies" like AI and biotechnology. The commission does so with the desire to link them to the UN Sustainable Development Goals (SDGs), ensuring development is not impeded by uncontrolled proliferation of technology [4]. Third, it provides recommendations of policies on concerns ranging from digital connectivity across borders, affordability of internet services, digital skills building, data capacity and transfers, and financing/e-commerce [4]. The CSTD also hosts many panel sessions with scientific experts as well as workshops in order to better study and understand advancements in between annual sessions [8].

In 2024, the CSTD took upon the significant undertaking of establishing a dedicated working group focused on data governance after the adoption of The Global Digital Compact. This framework was a part of the Pact for the Future Initiative of the UN and pushed for better management of digital information and data by member states in all regards [5][6].



Source: https://www.un.org/en/un-chronicle/keeping-pace-accelerated-world-bringing-rapid-technological-change-united-nations

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Topic A: Safeguarding Mental Privacy & Security in Neurotechnology

TOPIC OVERVIEW

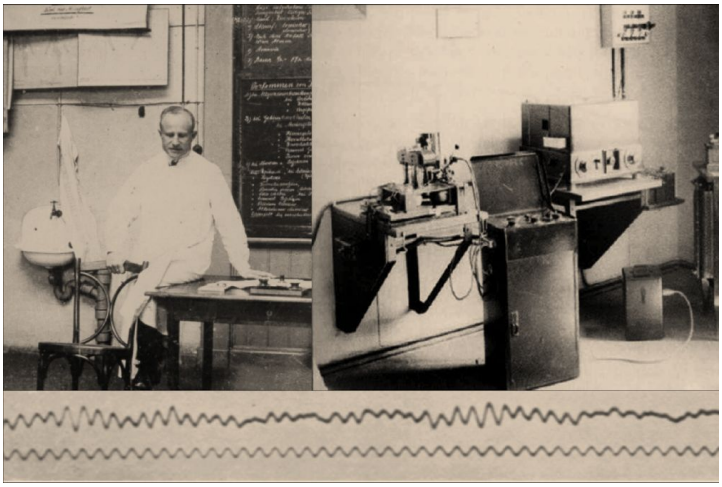
Neurotechnology refers to tools and devices that record or alter activity in the brain and nervous system [15]. This neurotechnology has a wide range of functions, including implications in medicine, healthcare, and rehabilitation. Nonetheless, due to the ability for the generational of neural data, neurotechnology has largely expanded beyond typical clinical settings. Consumer headbands that track brain waves during physical activity or sleep have been on the rise in public markets alongside wearable devices that read signals from the nervous system in order to gain a better sense of psychological and physiological changes. Additionally, workplaces have implemented monitoring systems for employee fatigue while militaries internationally have begun investing in neurotechnological tools as a form of future warfare [31]. Moreover, AI has raised the stakes of this proliferation, because once difficult interpretations of neural data can be rapidly analyzed—drawing networks of information at the blink of an eye [31].

Neural data is fundamentally different from other forms of personal information due to its unparalleled level of privacy and intimacy. With researchers noting that neural data can identify individuals and thought-patterns, the notions of neuroethics comes to the rise [15]. With increasing dangers upon the sovereignty of thought, setting equitable understanding of “neurorights” becomes an even more pressing concern on the global scale—including values of mental privacy, right to identity, and mental agency away from algorithmic manipulation [34].

The main challenge is the governance gap for neural data, especially in commercial markets in which it poses high promise for surveillance capitalism structures. Opposed to regulated medical devices, the commercialization of neurotechnology has allowed companies to overstep ordinary privacy laws with little to no governmental oversight. Laws that do exist are highly inconsistent and have no international, regulatory strength to enforce attacks against mental sovereignty [22][23]. In the military dimension, technologies once meant to support hurt soldiers, will now be used to monitor and influence decision making. Similarly, tools used to support human efficiency are being converted into weapons for harmful testing and uncontrolled neural data sourcing in developing countries known as “ethics dumping” [24].

HISTORY

While a field currently in immense expansion, neuroscience and the study of the brain, has been a prominent aspect of innovation for longer than most expect. The electroencephalography (EEG), a critical tool for the recording of the brain’s electrical activity, was first invented in the 1920s. Research today into brain-computer interfaces—systems that allow for the communication between brain and machine—truly began in the 1970s with the study of the effects of deep brain stimulation on movement disorders. Emotiv’s “Insight” headset is an example of the modern day commercialization of neurotechnology, which became critical in Chile’s landmark 2024 court case [17]. Moreover, wealthy countries with larger fiscal resources for investment have begun focusing on national brain-based research projects, while nations in the Global South have been discarded in the race for neuro-technological advancement [25].



Source: https://sapienlabs.org/lab-talk/decoding-the-electric-brain/



Source: https://neurosciencenews.com/bci-brain-mapping-25808/

Though mass collection of neural data began significantly earlier, the conversation of neuroethics reached the mainstream science community by the late 2010s. The Morningside Group, a group composed of scientist and ethicists, became one of the first organizations to propose a formal description of neurorights, later inspiring other independent explorations of mental privacy and agency on the international level [34]. While efforts from UNESCO attempt to set a standard for mental privacy in the digital age on the international scale, there remains disparity between nations regarding what constitutes protecting. For example, the United States still has not passed legislation ensuring neural data protections, leaving it up to state authorities to introduce such necessary frameworks [21]. On the other hand, in 2021, Chile became the first country to establish protections for brain recordings and information as part of their national constitution, demonstrating the increasingly critical necessity for an international framework to be established [17][19].

SOLUTIONS & PAST UN ACTION



Source:https://www.unesco.org/en/articles/ethics-neurotechnology-unesco-leaders-and-top-experts-call-solid-governance



Source:https://www.unesco.org/en/articles/unescos-international-bioethics-committee-recommendations

UNESCO's Recommendation on the Ethics of Neurotechnology in 2025 is the current most significant existing international tool for neuroethical management [11]. It provides a framework for how to protect generally mental privacy, ensuring transparency and consent, and safeguarding the data of children and vulnerable populations [10]. The protections of children and young adults are highly emphasized in the plan, as individuals within this age group have not fully developed their brain, making them more susceptible to the dangers of uncontrolled commercialization and manipulation [12]. UNESCO has already announced its support for member state looking to build national neuroethics policies and share solutions [10]. While this action is immensely important, it is not legally binding due to the limits of UNESCO [11].

Hence, the Human Rights Council drafted Resolution 51/3 in 2022, beginning a longitudinal study culminating in a 2024 report by the Advisory Committee [14]. This report examined how the human rights system should respond to the increasing concern of mental privacy. Currently, the 2025 Resolution 58/6 tasks the Advisory Committee to draft recommended guidelines for applying existing human rights frameworks to the structure and operations of neurotechnologies [16]. The Special Rapporteur on privacy has also published regulatory principles and follow-up reports on model laws for neurotech/data restrictions [15][35].

In 2019, interest in neuroethical guidelines grew quickly after 2019 UNESCO's Director-General began a process that eventually paved the way for the drafting of an equitable, global standard. Additionally, the General Conference for UNESCO formally mandated a recommendation on the ethics of neurotechnology which was drafted by expert scientists and received by the member states [9][10][13]. This culminated in the 2025 adoption of the Recommendation on the Ethics of Neurotechnology signed by 194 member states.



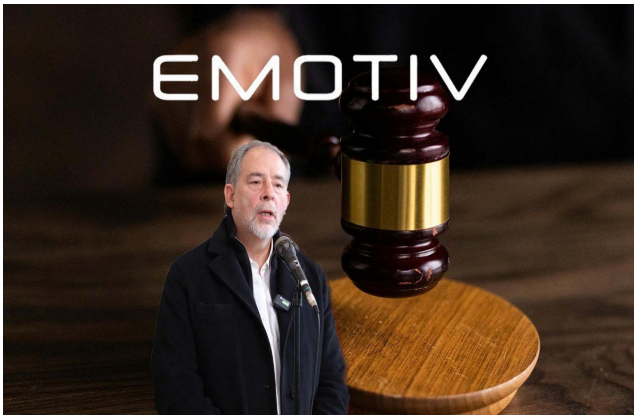
Source:https://www.orfonline.org/expert-speak/ethics-of-neurotechnology

CASE STUDIES

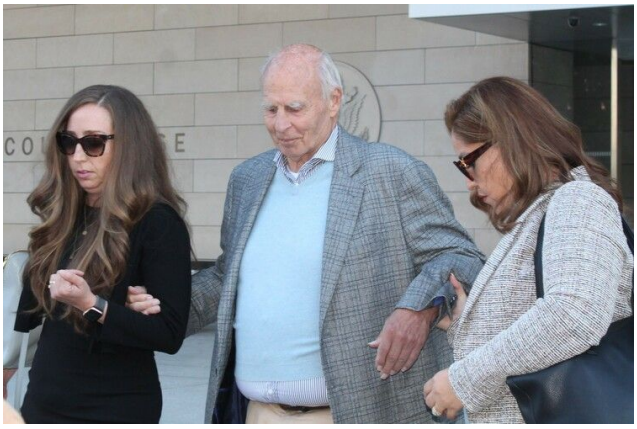
Case Study #1 Girardi v. Emotiv (Chile, 2023):
Former senator Guido Girardi bought an Emotiv "Insight" headset, a famous, consumer device that records the brain's electrical activity, and later sued the US-based company because his brain data was stored by the company and used for research and product development unbeknownst to him [17][18]. In May 2023, an appeals court required Emotiv to delete his EEG data, but also found the company's privacy policies were not necessarily unconstitutional [18]. In August 2023, the Chilean Supreme Court, ordered the data deleted and required Emotiv to stop selling the Insight device in Chile until it changed its mental privacy regulations [18]. This case overall highlights the right for neurorights against corporations, while also highlighting the necessity for advanced, international data protection laws for cross-border conflicts [17][20].



Source:https://www.emotiv.com/blog/emotiv-epoc-x-price-guide?srsltid=AU7gw4Vy7iL3129-XiIclFS3Ig52NTXYFFSQp4KFMocMIc96QM88z_Di



Source:https://www.dailyjournal.com/articles/380309-girardi-argues-with-attorney-in-wire-fraud-trial



Source:https://www.24horas.cl/conciencia-24-7/tecnologia/historica-sentencia-chile-contra-emotiv-privacidad-datos

CASE STUDIES



Source:https://www.theguardian.com/higher-education-network/2018/aug/31/ethics-dumping-the-exploitative-side-of-academic-research



Source:https://www.theguardian.com/higher-education-network/2018/aug/31/ethics-dumping-the-exploitative-side-of-academic-research

Case Study #2: Ethic Dumping:

Because of differences in governance, developing countries often have some of the least standardized regulations for neurotechnology, yet they may hold significant populations for research and data collection. Many private neurotech corporations have been found to overreach in African research centers, conducting research that would receive less support at home, especially in Kenya [25]. Moreover, Nigeria is one of five countries that account for about 75% of Africa's neuroscience publications, yet much of the resulting neural data is consolidated outside the continent, with little interest in supporting internal research efforts. This exploitation of limited regulation drives data outsourcing and financial machinations [24].

QUESTIONS TO CONSIDER

- What aspects of neural data make it unique, and should it be treated as a special category of data? How should “neural data” be defined, and should it be more protected than other types of personal data?
- In protecting mental privacy, are non-binding recommendations enough, or should a binding resource be implemented? What are the risks related to each approach?
- Do “neurorights” need to be differentiated from existing notions of human privacy, freedoms, and integrity?
- How can states ensure their citizens are protected from foreign companies whose operations lie outside of national jurisdiction? What international framework should be set in place to address cross-border data overreach?
- How can governments balance protecting mental sovereignty while also encouraging innovation?
- Are there special protections necessary for children, elderly individuals, and other vulnerable groups?
- How can the gap between access to neuro technological resources be addressed, especially in light of ethic dumping and private corporation consolidation of neural data?
- How can developing nations build the necessary protections, review systems, and processing capacity to prevent ethics dumping? What role to MDCs and companies play in ensuring equity?
- How should the governance of military use of neurotechnology be different? What international guidelines can be put in place to avoid brain weaponization?
- Where lies the balance between national sovereignty to decide neuroright legislation and the necessity for an overarching guideline for internationally established rights?
- As a subsidiary committee of ECOSOC, how can CSTD best (and realistically) address the questions above?

REFERENCES

[1] "About the CSTD." *UNCTAD*, unctad.org/topic/commission-on-science-and-technology-for-development/about.

[2] "Commission on Science and Technology for Development." *UNCTAD*, unctad.org/topic/commission-on-science-and-technology-for-development.

[3] "Commission on Science and Technology for Development, 16th Session." *Economic and Social Council*, United Nations, 3–7 June 2013, ecosoc.un.org/en/events/2013/commission-science-and-technology-development-16th-session.

[4] "Commission on Science and Technology for Development." *Digital Watch Observatory*, DiploFoundation, dig.watch/actor/commission-science-and-technology-development.

[5] "Working Group on Data Governance." *UNCTAD*, unctad.org/topic/commission-on-science-and-technology-for-development/working-group-on-data-governance.

[6] "Working Group on Data Governance at All Levels Established." *SDG Knowledge Hub*, International Institute for Sustainable Development, sdg.iisd.org/news/working-group-on-data-governance-at-all-levels-established/.

[7] "UN CSTD WG on Data Governance." *Digital Watch Observatory*, DiploFoundation, dig.watch/processes/un-cstd-wg-on-data-governance.

[8] "Commission on Science and Technology for Development, 29th Session." *UNCTAD*, unctad.org/meeting/commission-science-and-technology-development-29th-session.

[9] "Recommendation on the Ethics of Neurotechnology." *UNESCO*, www.unesco.org/en/legal-affairs/recommendation-ethics-neurotechnology.

[10] "Ethics of Neurotechnology: UNESCO Adopts First Global Standard in Cutting-Edge Technology." *UNESCO*, www.unesco.org/en/articles/ethics-neurotechnology-unesco-adopts-first-global-standard-cutting-edge-technology. Accessed 17 Oct. 2026.

REFERENCES

[11] "UNESCO Adopts First Global Framework on Neurotechnology Ethics." *Inside Privacy*, Covington & Burling, www.insideprivacy.com/health-privacy/unesco-adopts-first-global-framework-on-neurotechnology-ethics/.

[12] "UNESCO Adopts First Global Framework on Neurotechnology Ethics." *UK National Commission for* UNESCO, unesco.org.uk/news/unesco-adopts-first-global-framework-on-neurotechnology-ethics.

[13] "Recommendation." *Ethics of Neurotechnology*, UNESCO, www.unesco.org/en/ethics-neurotech/recommendation.

[14] "Neurotechnologies and Human Rights." *Office of the United Nations High Commissioner for Human Rights*, Human Rights Council Advisory Committee, www.ohchr.org/en/hr-bodies/hrc/advisory-committee/neurotechnologies-and-human-rights.

[15] "UN Expert Calls for Regulation of Neurotechnologies to Protect the Right to Privacy." *Office of the United Nations High Commissioner for Human Rights*, Mar. 2025, www.ohchr.org/en/press-releases/2025/03/un-expert-calls-regulation-neurotechnologies-protect-right-privacy.

[16] "United Nations, Human Rights Council. *Neurotechnology and Human Rights*. Resolution 58/6, A/HRC/RES/58/6, 2 Apr. 2025, *UN Digital Library*, digitallibrary.un.org/record/4082164/files/A_HRC_RES_58_6-EN.pdf.

[17] "Chilean Supreme Court ruling on the protection of brain activity: neurorights, personal data protection, and neurodata." *PubMed Central*, National Library of Medicine, www.ncbi.nlm.nih.gov/pmc/articles/PMC10929545/.

[18] Muñoz, José M., et al. "Tech Is Coming for Your Brain Data." *The Boston Globe*, 5 Sept. 2024, www.bostonglobe.com/2024/09/05/opinion/tech-brain-data-neurorights/.

[19] "Neural Rights: Landmark Ruling." *ArentFox Schiff*, www.afslaw.com/perspectives/news/neural-rights-landmark-ruling.

REFERENCES

[20] "Even Chile's Neurorights Leave Inferred Mental Data in a Gray Zone." *Stanford Law School*, 27 Apr. 2026, law.stanford.edu/2026/04/27/even-chiles-neurorights-leave-inferred-mental-data-in-a-gray-zone/.

[21] "Sens. Cantwell, Schumer, Markey Introduce Legislation to Shield Americans' Brain Data from Exploitation." *U.S. Senate Committee on Commerce, Science, and Transportation*, www.commerce.senate.gov/press/dem/release/sens-cantwell-schumer-markey-introduce-legislation-to-shield-americans-brain-data-from-exploitation/.

[22] "Senate MIND Act: Neural Data and FTC Regulation." *Privacy & Security Law Blog*, Davis Wright Tremaine, Oct. 2025, www.dwt.com/blogs/privacy--security-law-blog/2025/10/senate-mind-act-neural-data-ftc-regulation.

[23] "Neural Data Privacy Regulation." *Arnold & Porter*, July 2025, www.arnoldporter.com/en/perspectives/advisories/2025/07/neural-data-privacy-regulation.

[24] Eke, Damian. "Ethics and Governance of Neurotechnology in Africa: Lessons from AI." *JMIR Neurotechnology*, vol. 3, 2024, article e56665, 29 Aug. 2024, neuro.jmir.org/2024/1/e56665.

[25] "FAIR African brain data: challenges and opportunities." *PubMed Central*, National Library of Medicine, pmc.ncbi.nlm.nih.gov/articles/PMC11911527/.

[26] "Cognitive Warfare at the Crossroads: Defining and Developing Capabilities." *Small Wars Journal*, 5 June 2026, smallwarsjournal.com/2026/06/05/cognitive-warfare-at-the-crossroads-defining-and-developing-capabilities/.

[27] "The Future of China's Cognitive Warfare: Lessons from the War in Ukraine." *Hudson Institute*, www.hudson.org/national-security-defense/the-future-of-china-s-cognitive-warfare-lessons-from-the-war-in-ukraine.

[28] "Neuro-Weaponisation: How Neurotechnology Is Blurring Humanity in the Military Arena." *Modern Diplomacy*, 20 Nov. 2025, moderndiplomacy.eu/2025/11/20/neuro-weaponisation-how-neurotechnology-is-blurring-humanity-in-the-military-arena/.

REFERENCES

[29] "Cognitive Warfare: Why Wars without Bombs or Bullets Are a Legal Blind Spot." *The Conversation*, theconversation.com/cognitive-warfare-why-wars-without-bombs-or-bullets-are-a-legal-blind-spot-260607.

[30] *Neurotechnology and Human Rights: An Audit of Risks, Regulatory Challenges and Opportunities*. Geneva Academy of International Humanitarian Law and Human Rights, Nov. 2025, geneva-academy.ch/wp-content/uploads/2025/11/Neurotechnology-and-Human-Rights-An-Audit-of-Risks-Regulatory-Challenges-and-Opportunities.pdf.

[31] "Who Owns Digital Thoughts? The Limits of Property Law and the 2025 UNESCO Recommendation on the Ethics of Neurotechnology." *Stanford Law School*, 30 Mar. 2026, law.stanford.edu/2026/03/30/who-owns-digital-thoughts-the-limits-of-property-law-and-the-2025-unesco-recommendation-on-the-ethics-of-neurotechnology/.

[32] "Privacy and the Rise of Neurorights in Latin America." *Future of Privacy Forum*, fpf.org/blog/privacy-and-the-rise-of-neurorights-in-latin-america/.

[33] "US States Build Patchwork of Neural Data Privacy Laws as BCI Market Accelerates." *Inside BCI*, 3 Apr. 2026, insidebci.com/policy/2026-04-03-us-states-build-patchwork-of-neural-data-privacy-laws-as-bci-market-accelerates/.

[34] "Submission of the Neurorights Foundation." *Office of the United Nations High Commissioner for Human Rights*, Human Rights Council Advisory Committee, www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/advisorycommittee/neurotechnology/03-ngos/ac-submission-cso-neurorightsfoundation.pdf.

[35] United Nations, Human Rights Council. *Foundations and Principles for the Regulation of Neurotechnologies and the Processing of Neural Data*. A/HRC/58/58, *Office of the United Nations High Commissioner for Human Rights*, www.ohchr.org/en/documents/thematic-reports/ahrc5858-foundations-and-principles-regulation-neurotechnologies-and.

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