101st REGULAR SESSION
August 1 to 10, 2022
Rio de Janeiro, Brazil

OAS/Ser. Q
CJI/doc. 673/22 rev.1
25 August 2022
Original: Spanish

SECOND PROGRESS REPORT:

DRAFT INTER-AMERICAN PRINCIPLES ON NEUROSCIENCE, NEUROTECHNOLOGIES AND HUMAN RIGHTS

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Preamble

CONSIDERING that advances in neuroscience and the development of neurotechnologies have made it possible to intervene in the brain activity of people, which constitutes the essence of their personality, causing important ethical-legal challenges to arise in the sphere of human rights; hence the need for principles at the inter-American level that can be effectively, systematically and transparently integrated amid the use of neurotechnologies; The aim is to preserve fundamental human rights, such as the rights to dignity, equality and non-discrimination; to free development of personality, identity and autonomy; to privacy; to physical, psychological and neurocognitive integrity; to physical and mental health, and to access to judicial remedies, among others;

REAFFIRMING that the Universal Declaration of Human Rights recognizes the right to the free development of the personality, as well as enshrining equality and human freedom; the fulfillment of economic, social and cultural rights; and education as a means of development of the human personality;

UNDERSTANDING that the Charter of the Organization of American States (OAS) expresses that scientific and technological development should strengthen the fundamental rights of people, seeking the overall improvement of the individual and social justice and progress as the foundation of democracy; and that the Social Charter of the Americas approved by the OAS establishes that scientific and technological development should help to improve living standards of people and achieve their integral development, for which reason it is necessary to take steps to ensure that the application of innovations benefits everyone;

RECALLING that, according to the American Declaration of the Rights and Duties of Man, all persons are born free and equal, in dignity and in rights, and, being endowed by nature with reason and conscience, they should conduct themselves fraternally toward one another; fulfillment of each person's duty is a prerequisite to the rights of all. Likewise, and in accordance with the American Convention on Human Rights (Pact of San José), States have the obligation to respect the rights and freedoms recognized therein, to ensure the free and full exercise thereof to all persons, and to commit to adopt specific measures with a view to achieving the progressive development and full realization of the rights implicit in the economic, social, educational,

scientific, and cultural standards set forth in the Charter of the Organization of American States (OAS);

RECALLING ALSO that the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) recognizes the right of every person to enjoy the benefits of scientific and technological progress; that, likewise, particularly in the Inter-American Convention on the Elimination of All forms of Discrimination against Persons with Disabilities, with a view to fostering the full integration in society, on an equal footing, of persons with disabilities, States commit to providing effective collaboration in scientific and technological research related to prevention, treatment, and rehabilitation, as well as development of means and resources designed to facilitate or promote independence and self-sufficiency.

NOTING that, at its 51st Regular Session, the General Assembly of the Organization of American States adopted the Updated Principles on Privacy and Protection of Personal Data drawn up by Inter--American Juridical Committee, in resolution AG/RES. 2974 (LI-0/21) in November 2021;

HIGHLIGHTING the adoption of the "Report of the International Bioethics Committee of UNESCO on the Ethical Issues of Neurotechnology," published in December 2021;

RECALLING recent international initiatives on the ethical, social, and human rights challenges of neuroscience and neurotechnologies such as the "Recommendation on Responsible Innovation in Neurotechnology," adopted in December 2019 by the Organization for Economic Co-operation and Development (OECD), and the Council of Europe Report "Common Human Rights Challenges Raised by Different Applications of Neurotechnologies in the Biomedical Field" adopted in October 2021; as well as the Declaration adopted in June 2020 by the Latin American and Caribbean Parliament (Parlatino), recommending the need for legislation on the subject.

BEARING IN MIND that the Inter-American Juridical Committee adopted the Declaration on Neuroscience, Neurotechnologies, and Human Rights: New Legal Challenges for the Americas (CJI/DEC. 01 (XCIX-O/21)) in August 2021, works that has received the substantive input and recommendations from an interdisciplinary Committee of Experts, composed of scientists and jurists whose expertise covers fields that converge in the principles addressed herein.[1]

The Inter-American Juridical Committee hereby adopts the following document as an important guide for situations that may arise with the advances in neuroscience and the development of neurotechnologies that make it possible to intervene in the brain activity of individuals. The principles take existing international human rights standards into account and apply them by adapting them to the neurotechnologies sphere. These principles are the result of analysis of current international rules and standards that can be applied to the development of neurotechnologies with a view to anticipating and countering any situation that may tend to violate individuals' rights:

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[1]The Committee of Experts is composed of Eduardo Bertoni, Ciro Colombara, Francesca Fanucci, Verónica Hinestroza, Amelie Kim Cheang, Tomás Quadra Salcedo, Moisés Sánchez, Silvia Serrano Guzmán, and Rafael Yuste.

“Inter-American Principles on Neuroscience, Neurotechnologies, and Human rights”

Principle 1. Identity, autonomy, and privacy of neural activity. *The development and use of neurotechnologies shall endeavor to uphold everyone’s right to benefit scientific and technological progress, while preserving identity, autonomy, and the free development of personality. Neural activity is, among other things, part of privacy and, therefore, is protected by human rights norms related thereto. It is essential to preserve and guarantee each person's control over their own individual identity within the limits of public and social order. Neurocognitive self-determination and freedom of decision making must always be ensured.*

Concepts and comments

For the purposes hereof, neurotechnology is understood as any mechanism by which it is possible to observe or modify brain activity. This includes devices that allow the direct connection of technological devices to a person's nervous system. They can be invasive mechanisms, such as the implantation of devices or microchips in the brain, or non-invasive methods, such as functional magnetic resonance imaging (fMRI). This definition of neurotechnologies encompasses the use of deep brain, electrical, and magnetic stimulation mechanisms, as well as the use of brain-computer interfaces or neural interfaces. The latter involve direct communication and transmission of information between a technological device and a person's nervous system.

Neuroscience is a recent discipline that is expanding current understanding of the human brain. The use of neurotechnologies in a clinical setting involves the connection of a person's nervous system to electronic devices that make it possible to fully or partially restore the functioning of a specific neurological faculty. From people with motor disabilities to people with neurodegenerative diseases such as Parkinson's or Alzheimer's, the development of neurotechnologies is significantly boosting research in the field of health, offering favorable scenarios for people suffering from neurological diseases that until recently were thought to be incurable. Notwithstanding its benefits for the well-being of citizens, the linking of the human brain to electronic devices and artificial intelligence mechanisms poses significant challenges to human rights and to the very essence of the individual.

The use of neurotechnologies can, in certain cases, lead the person to behave in a way that is not consistent with their personality. Thus, this principle has as a fundamental premise the preservation of individual identity against any neurotechnological interference. Since the human brain coordinates all the vital processes of an individual, including behavior and decision making, and even generates the very essence of their personality, any modification to brain activity could entail significant risks associated with the impairment of personal identity, autonomy, and the free development of personality. Changes in neural architecture may affect the capacity for agency or the capacity for autonomy.

If an individual's capacity for agency is not preserved, he or she could be at the mercy of third parties, companies, and even States or governments that may have an interest in modifying the personality or behavior of a given person. This includes the power of a person to make his or her own decisions regarding any intervention involving the use of neurotechnologies. Thus, according to this principle, cognitive or neurotechnological freedom will be constrained by public order and social welfare.

In principle, one of the arguments in relation to the rights under debate is to know what the right to identity is. The right identity is inseparable from the individual as such and hence from recognition of his or her juridical personality, as a person endowed with rights and obligations. In that sense, we understand that the right to identification is a right that makes it possible to exercise other rights. Indeed, it is the right of every person to have his or her birth registered and to receive a name and a nationality; the responsibilities of the State in that regard are also underpinned by other international human rights standards.[2] Article 6 of the Universal Declaration of Human Rights states that "Everyone has the right to recognition everywhere as a person before the law." Likewise, Article 24 (2) of the International Covenant on Civil and Political Rights provides: "Every child shall be registered immediately after birth and shall have a name." Similarly, there are numerous articles in the Convention on the Rights of the Child that relate in one way or another to birth registration,[3] but particularly relevant for our purposes are Articles 7 and 8, which reinforce the importance of the right to identification. Article 7 states: "The child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality and ... the right to know and be cared for by his or her parents. States Parties shall ensure the implementation of these rights ..."; furthermore, Article 8 states: "States Parties undertake to respect the right of the child to preserve his or her identity ...."

Therefore, in relation to identification, the latter must be understood as the activity by which the State selects a series of particular, distinctive attributes and other circumstances of a person that allow them to be individually identified in a unique, unequivocal, and differentiable way from the other members of a community, in order to guarantee the exercise of their rights and the fulfillment of their obligations.

Article 11 (2) of the American Convention on Human Rights (ACHR) establishes the right to privacy and provides: "No one may be the object of arbitrary or abusive interference with his private life, his family, his home, or his correspondence, or of unlawful attacks on his honor or reputation." Regarding the scope of that right, the Inter-American Court of Human Rights (I/A Court H.R.) has written that "the sphere of privacy is characterized by being exempt from and immune to abusive and arbitrary invasion or attack by third parties or the public authorities."[4]

However, neurotechnologies are pushing the very concept of privacy to the limit. Neuroimaging techniques have the ability to record brain activity. Therefore, misuse of brain information and neural data governance are among the most relevant issues today. Although neurotechnologies do not currently allow "mind reading," they can reveal highly sensitive information to individuals, such as personality traits and information about an individual's internal mental activity. In that sense, neural data are understood as those data derived from the activity of the nervous system of a person that constitute highly sensitive personal information because they reveal aspects of the internal mental activity of an individual. This internal mental activity is the essence of their personality, so that the protection of that core is inseparable from the protection of human dignity and, therefore, also from human rights.

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[2] UNICEF, C. d. (2002). *Birth Registration: Right from the Start,* Inocenti Digest. digest9e.pdf (unicef-irc.org)

[3] Adopted by the General Assembly of the UN in Resolution 44/25 of November 20, 1989 (Treaty Series, vol. 1577, p. 3).

[4] I/A Court H.R., Case of the Ituango Massacres v. Colombia, Preliminary Objections, Merits, Reparations, and Costs, Judgment of July 1, 2006, Series C. No. 148, para. 194.

It should also be noted that the I/A Court H.R. has expressed its opinion on the concept of privacy and autonomy (ACHR, Art. 11). Regarding an alleged violation of Article 11 of the American Convention, the Court specified that the content of that provision includes, *inter alia*, the protection of privacy. For its part, the concept of privacy is a broad term that cannot be defined exhaustively, but includes, among other protected spheres, the right to establish and develop relationships with other human beings. For instance, in the *El Mozote* case*,* the Inter-American Court considered that the rape perpetrated against the young women violated essential values and aspects of their private lives, thus they completely lost control over their most personal and intimate decisions, and over their basic bodily functions.[5]

In addition, the Convention on the rights of person with disabilities[6] establishes that States must recognize that persons with disabilities are entitled enjoy the highest possible level of health and it further stipulates that they shall take all appropriate measures to ensure the physical, cognitive, and psychological recovery, rehabilitation, and social reintegration of persons with disabilities, always in a context that fosters the health, well-being, self-esteem, dignity, and autonomy of the person and that takes into account gender- and age-specific needs. Nevertheless, even though neurotechnology may potentially impair human rights, such as dignity, privacy, self-determination, and others, the international human rights system[7] does not contain instruments that are binding upon States to specifically recognize protect rights and freedoms from abuses committed by the use of these technologies.

Principle 2. Protect human rights starting from the neurotechnology design stage. *States shall foster a human rights-based approach when developing neurotechnology and seek to ensure comprehensive protection and respect for human rights starting with the design of neurotechnologies, as well as in their implementation, marketing, and use.*

Concepts and comments

For the purposes of this principle, it is understood that the neurocognitive substrate of an individual is the product of their brain activity, which constitutes the essence of his personality. Since neurotechnologies make it possible to modify a person's neural activity, under this principle it is fundamental to ensure the comprehensive protection of human rights at every phase of the development cycle of neurotechnologies.

In other words, when mention is made of the importance of protecting and respecting human rights starting with the design of neurotechnologies, it means that all the necessary technical and technological measures must be taken to comply with international treaties and instruments on human rights from the beginning of the design of neurotechnologies to their final deployment, evaluation, and use. In that sense, the protection should extend from their development to their marketing and subsequent use.

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[5] I/A Court H.R., Case of the Massacres of El Mozote and Nearby Places v. El Salvador, Merits, Reparations, and Costs, Judgment of October 25, 2012, para. 166.

[6] Adopted by the General Assembly of the United Nations in resolution 61/106 of December 13, 2006, A/RES/61/106, Articles 16, 22ff.

[7] Id. According to Article 22 of the above-mentioned Convention, the respect for the privacy of persons with disabilities is to ensure that: 1. No person with disabilities, regardless of place of residence or living arrangements, shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home or correspondence or other types of communication or to unlawful attacks on his or her honor and reputation. Persons with disabilities have the right to the protection of the law against such interference or attacks. 2. States Parties shall protect the privacy of personal, health and rehabilitation information of persons with disabilities on an equal basis with others.

Principle 3. Neural data as sensitive personal data. *Neural data are highly sensitive personal data. Those responsible for the processing and use of neuro data shall adopt special privacy and security measures and ensure limits on the use of decoding techniques that allow a person to be identified or made identifiable, especially with datasets that are shared with third parties.*

Concepts and comments

For the purposes of this principle, a dataset is defined as a set or collection of information treated as a single unit by a neurotechnological device. Likewise, sensitive personal data are understood as referring to the private sphere of their owner, or whose misuse may lead to discrimination or place the person concerned at grave risk. By way of example, personal data are considered sensitive that may reveal aspects such as racial or ethnic origin; religious, philosophical and moral beliefs or convictions; union membership; political opinions; information related to health, life, sexual preference or orientation, and genetic, neurological or biometric data aimed at univocally identifying a natural person.

This is in line with the Updated Principles on Privacy and Protection of Personal Data.[8] Use of the principles refers exclusively to the kind of data that "due to their sensitivity in certain contexts are particularly susceptible to cause considerable harm to individuals if misused." (Principle 9).

Neural data are particularly susceptible to cause considerable harm to individuals if misused. Using artificial intelligence algorithms, neurotechnologies can recognize and decode neural information. This makes it possible to interpret (albeit in a limited way) the electrical parameters generated in the brain. This, in turn, allows correlations to be made between the decoded neural information and certain personality traits of an individual, which information can be used for purposes beyond the medical or research realm. Neural data also has the potential to be used as a means for biometric identification. This is possible because a person's brain activity is unique, identifiable, and distinguishable from others, making it the most reliable means of biometric identification available to date.

For these reasons, this principle seeks to provide protection for brain information against any individual, organization, or government that seeks to use neural data in a manner not consented to by the individual. It is for this reason that those responsible for the processing and use of neural data should adopt privacy and security measures commensurate with the sensitivity of this type of sensitive data and their ability to harm those who own them.

Principle 4. Express and informed consent for neural data*. The consent of the person to whom the neural data belongs is a prerequisite for access to the collection of brain information. It is essential to ensure free, informed, specific, unequivocal, unambiguous, and flawless consent when it comes to access to or treatment of neural activity. The consent given must be revocable at any time.*

Concepts and comments

Informed consent is a fundamental element for clinical practice. It is based on the notion of personality. Accordingly, it is the basis of legitimacy for a neurotechnological procedure and, therefore, any person who for any reason undergoes such a procedure should have the ability to

[8] Adopted by the Inter-American Juridical Committee in April 2021 (CJI/doc. 638/21), and approved by the General Assembly of the OAS in resolution AG/RES. 2974 (L I-0/21) of November 2021.

express in a conscious, deliberate, and informed manner whether or not they authorize that neurotechnological procedure to be carried out. Consequently, the neurotechnological procedure would not be acceptable if it violated this principle.

Thus, individuals who give their consent should be able to revoke it and have the right to request the deletion of stored neural data at any time, to which end the party responsible for processing neural data shall establish simple, prompt, effective, and free mechanisms for such purposes. Likewise, the processing of neural data extends to security and full control and disposal of the data.

This being so, and bearing in mind the cited Updated Principles on Privacy and Protection of Personal Data, those who are responsible for the processing of neural data should adopt enhanced privacy and security measures commensurate with sensitive nature of these data, as well as establish and maintain, regardless of the type of processing they carry out, clear management plans and protection guidelines for the collection, storage, organization, and access of neural data, in order to strictly ensure their security and control.

Principle 5. Equality, non-discrimination, and equal access to neurotechnologies*. The idea is to promote the development and use of neurotechnologies accessible to all persons, in accordance with the principle of equality and non-discrimination. States are called upon to ensure equitable access to neurotechnologies and develop public policies for responsible innovation with a view to avoiding any increase in inequality, especially with respect to the most vulnerable groups.*

Concepts and Comments

The principle of equality and non-discrimination is one of the core pillars of the inter-American system for protection of human rights. It is recognized both in Article 24 of the ACHR and in Article 3 of the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador). For its part, the Inter-American Court of Human Rights has also reaffirmed on multiple occasions that the notion of equality springs directly from human nature, making it inseparable from the essential dignity of the individual.

This also extends to the development and use of neurotechnologies, which should be equally accessible to all persons. Thus, States shall ensure equitable access to neurotechnologies and develop public policies for responsible innovation with a view to avoiding any increase in inequality or exacerbation of discrimination, which implies refraining from acts that in any way generate situations of discrimination on the basis of race, color, sex, language, religion, or social status, among others.

Here, it is important to note the Inter-American Convention on the Elimination of All Forms of Discrimination against Persons with Disabilities,[9] in which the principal goal is to prevent and eliminate all forms of discrimination against persons with disabilities and to foster their full integration in society.

At the same time and in a related manner, States must strive to ensure a balance between private interests and the interests of the community during all phases of the life cycle of neurotechnologies, which is to say, during their development, access, marketing, and use. It should be noted that this principle favors equal access, not only in the clinical context, but also

[9] Adopted by the General Assembly of the OAS in Guatemala City on June 7, 1999. Entry into force on September 14, 2001.

outside that setting. Equality and non-discrimination in the development, access, marketing, and use of neurotechnologies also provides protection against discrimination by algorithms linked to artificial intelligence systems that use neurotechnology interfaces.

Principle 6. Exclusive therapeutic application with respect to enhancement of cognitive abilities. *States shall strive to exercise particular caution in regulating the use of neurotechnologies to increase the cognitive abilities of individuals. It is recommended that clear limits be established—and enhanced control exercised— especially in cases in which, quite apart from and beyond their therapeutic or health application, neurotechnologies are intended to be used to enhance or improve cognitive abilities.*

Concepts and comments

The use of nanotechnologies for the enhancement of human cognition generates profound philosophical debate regarding the legal treatment it should have. Currently, around the world research projects are being conducted that seek to enhance human cognitive abilities by methods ranging from traditional mechanisms, such as education, to more disruptive means, such as brain stimulation or the implantation of neurotechnologies and artificial intelligence systems in the brain. In addition to the physiological consequences, cognitive enhancement raises important legal and ethical challenges that need to be considered for effective regulation.

In such scenarios, the principle of precaution supports the adoption of legislative guidelines to delimit with special caution the contexts for the use of neuroenhancement technologies. This includes the adoption of protective legislative measures aimed at establishing limits to potential risks associated with these technologies.

In that sense, the generic principle of non-discrimination, as traditionally defined, does not preclude making distinctions, provided that those distinctions do not include persecutory aims or undue privileges. The Inter-American Court of Human Rights has stated in various judgments that the general obligation of non-discrimination translates into the prohibition of issuing sweeping laws or of favoring measures and practices by its officials, when enforcing or interpreting the law, that discriminate against a certain group of persons on the basis of their race, gender, color, or other characteristics.[10]

This implies preventing the emergence of a potential social divide between persons who have decided to enhance their cognitive abilities and those who are unable or choose not to do so. This principle raises the precautionary principle because an outright ban could trigger its clandestine use and implementation. Therefore, in accordance with that principle, domestic laws should more specifically define the normative and regulatory context of neuroenhancement to ensure that human rights are effectively safeguarded and protected.

According to the Inter-American Convention on the Elimination All Forms of Discrimination against Persons with Disabilities, the States undertook to work on establishing measures needed to eliminate discrimination against persons with disabilities in order to achieve "b. Early detection and intervention, treatment, rehabilitation, education, job training, and the provision of comprehensive services to ensure the optimal level of independence and quality of life for persons with disabilities…" (article III).

In that regard, States must ensure equitable access to treatment using nanotechnological advances and thus prevent only a few privileged groups from benefiting from advances in

[10] I/A Court H.R., Advisory Opinion OC-18/2003, "Juridical Condition and Rights of the Undocumented Migrants," September 17, 2003.

science and technology, which would give rise to new forms of marginalization and exclusion. In that sense, neurotechnological cognitive enhancement reflects the importance of the principle of equality, as previously developed, with the aim of avoiding deep social inequality gaps.

Principle 7. Neurocognitive integrity*. It is essential to ensure protection of the neurocognitive integrity of all persons and prevent its use for malicious purposes, resulting in neurotechnological procedures aimed at harming or impairing brain activity or impacting the exercise of human rights. Every person has the right not to suffer alterations, manipulations, and/or modifications of his or her brain information that put at risk or impair personal integrity. States shall foster measures to ensure control, security, confidentiality, and integrity of neural data.*

Concepts and comments

In addition to their use for medical purposes, neurotechnologies can also be used for malicious purposes to the detriment of people's physical and neurocognitive integrity. This principle is in line with the duty to respect physical integrity enshrined in Articles 3 and 5 of the Universal Declaration of Human Rights and Article 5 of the American Convention. In that sense, the guideline seeks to establish mechanisms to safeguard personal integrity against neurotechnological procedures that entail unauthorized alterations to the functioning of a person's nervous system and result in potential damage to its processing or neural architecture.

Such attacks can be carried out in different, from the use of disproportionate brain stimulation to certain areas of the brain or the hacking of neuroprostheses or neural interfaces used by a person. They can also be carried out directly when they are aimed at adversely affecting the individual's neural activity. In addition, they can be done indirectly when the objective is to cause the prosthesis or neurotechnological device to malfunction.

This principle is particularly important given the emergence of new forms of neurocriminality, that is, the use of neurotechnological interventions for criminal purposes. According to this principle, everyone has the right to the protection of the law against alterations, manipulations, and/or modifications of brain information. In view of such scenarios, it is recommended that States establish legislative mechanisms aimed at safeguarding the neurocognitive integrity of individuals against acts that put their physical or mental integrity at risk by means of brain technologies.

Principle 8. Transparency and governance of neurotechnologies. *States shall strive to ensure that all state and non-state actors involved in the development, use, and/or marketing of neurotechnologies ensure the transparency of neurotechnological advances. This encompasses not only the way in which neurotechnologies are developed, are applied, and function, but also the impact they have on human rights and accountability for the processing of neural data in their possession.*

Concepts and comments

This principle implies that the development, use, and marketing of neurotechnologies should be carried out in accordance with international standards of transparency and accountability. Transparency requires that sufficient information on the different stages of neurotechnology development be documented and published on a regular basis. Such information should be published in a timely manner.

States shall promote strategies for efficient governance of neurotechnologies in order to minimize the technological risks associated with them. In that sense, both public authorities and

private entities shall have to establish ways that enable them to periodically disclose how decisions have been made to adopt such technologies and the potential risks that they may pose to citizens. This implies audits conducted by entities that specialize in innovation processes in the field of neurotechnologies. It is also recommended that both companies and the public sector regularly disclose information on the collection and processing of neural data in accordance with these guidelines.

Principle 9. Supervision and control of neurotechnologies*. States are called upon to exercise a supervisory and oversight role to ensure that the use and application of neurotechnologies are developed in accordance with international human rights standards, in order to minimize risks and negative impacts on the rights of individuals.*

Concepts and comments

It is incumbent upon States to exercise a supervisory and oversight role to ensure the responsible development, marketing, and use of neurotechnologies, consistent with international human rights instruments and treaties. This principle of supervision and control implies the creation of specialized, professionally trained, and functionally autonomous entities technically capable of monitoring and controlling all phases of the life cycle of neurotechnologies, in order to promote responsible and safe neurotechnological innovation that minimizes potential risks and negative impacts of such technologies on the enjoyment of human rights.

Principle 10. Access to effective protection and to remedies associated with the development and use of neurotechnologies*. States shall foster and guarantee mechanisms for the effective protection of the rights associated with the development and use of neurotechnologies. It is also necessary to guarantee access to judicial remedies and reparation in the event of proven damage in order to promote effective protection of human rights in accordance with these Principles.*

Concepts and comments

Article 25.1 of the American Convention on Human Rights establishes the fundamental right to the effective judicial protection of human rights, stating that everyone has the right to a simple and prompt judicial recourse against acts that violate or undermine their human rights.

In this sense, the principle recommends that States establish mechanisms for the effective protection of the rights associated with the development and use of neurotechnologies. This means providing effective judicial protection against the violation of such rights. This principle also calls on States to establish legal procedures for accessing remedies and obtaining redress for human rights violations associated with the development and use of neurotechnologies.

This Second **Progress Report** is adopted in order to continue working to build consensus for the development of a set of **Inter-American Principles on Neuroscience, Neurotechnologies, and Human Rights** in the context of a new, complex age, given the magnitude and speed of the phenomena occurring in it and the need to ensure the fulfillment and observance of human rights.