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Neurorights: Time to Discuss Rights to Mental Privacy and Integrity

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Abstract

The aim of this paper is to describe how artificial intelligence, algorithms, and deep learning can influence fundamental rights such as privacy and integrity. The authors consider the current protection of these rights the international level with a focus on Russian and European legislation. The authors also discuss whether AI poses a new threat to the protection of fundamental rights, and whether new laws should be established to deal with those violations. The study involves qualitative research methods, aimed at understanding people's beliefs, experience, attitudes, behaviour, their interactions with social media and AI, as well as the analysis of sources of international and domestic law. The results have implications for new well-being interventions which look at the relationship between the internet and AI and their influence on individual privacy and mental integrity. The authors attempt to evaluate whether the right to privacy requires any special protection in the age of artificial intelligence, and if so, what do we mean by rights to mental privacy and integrity?

Keywords: human rights, privacy, mental integrity, legal disruption, "neurolaw"

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Нейроправа: время обсудить право на конфиденциальность и психическую неприкосновенность

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Аннотация

Статья представляет собой научное исследование и направлена на описание того, каким образом искусственный интеллект, алгоритмы и глубокое обучение влияют на основные права человека, такие как конфиденциальность и целостность. Авторы оценивают состояние текущей защиты рассматриваемых прав на международном уровне, уделяя особое внимание российскому и европейскому законодательствам. Авторы также анализируют, представляет ли ИИ новую угрозу защите прав и, как следствие, должны ли быть признаны новые права в списке основных прав и свобод человека для борьбы с этими нарушениями. Авторами используется качественный метод исследования, чтобы понять убеждения, опыт, отношения, поведение и взаимодействие людей с социальными сетями и искусственным интеллектом. Авторы используют источники международного и внутригосударственного права. Результаты имеют значение для новых мер по обеспечению благополучия, которые учитывают взаимосвязь между интернетом и искусственным интеллектом в отношении конфиденциальности и психической целостности личности. В статье делается попытка оценить, нуждается ли право на неприкосновенность частной жизни в какой-либо специальной защите в эпоху искусственного интеллекта, и если да, то что мы подразумеваем под правами на ментальную (психическую) неприкосновенность и целостность?

Ключевые слова: права человека, неприкосновенность частной жизни, психическая неприкосновенность, правовое нарушение, нейроправо

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Introduction

A pressing contemporary matter is the need to evaluate how the use of AI and associated algorithms affects certain personal rights, such as privacy and intimacy. A person's identity is characterised by objective elements such as their place of birth, family, or education. It also includes subjective elements expressed through the way they think, feel, and act. The latter are part of their privacy and intimacy. The use of social networks, together with all manner of entertainment, health, education (inter alia) applications, can potentially violate personal data and, with it, of their rights to privacy and intimacy.

The aim of our article is to assess the extent to which these rights can be affected, how this can ultimately violate the right to identity, and finally, the way in which legislation should provide for the protection of such important rights. At this point we are faced with two specific possibilities. The first approach is conventional: one in which legal standards are modified to adapt to technological difficulties by drawing on existing legal sources or analogies to fit new circumstances, if feasible. The second strategy for mitigating the unfavourable effects of AI deployment is known as "legal disruption." Here, technology offers new values and the need to create new rights, in order to safeguard against unanticipated scenarios in which AI poses a threat to human beings. In order to address these abuses, we currently support the establishment of new rights which we refer to as "rights to privacy and mental integrity". These should be included in the new class of rights (neuro-rights) which arise from the application of AI. These are the products of the technological revolution and are based on their own set of rules (Neurolaw). At this point, we highlight the existing positive regulations on the rights to privacy and intimacy, together with the right to identity. We examine them both at an international level and within the scope of domestic law, with special attention to Russian, European, and Argentine legislation.

Our proposal consists ultimately of the recognition at regional or international level of the rights to privacy and mental integrity, as part of a group of human rights which need to be recognised, in order to protect the human person from harmful consequences arising from the use of AI and new technologies.

New threats posed to individual privacy by AI

The right to privacy is a fundamental human right which protects individuals from unwarranted intrusion into their personal lives, enabling them to control their personal information. Our neural data is composed of information related to the structure and functioning of our brain, often collected through technologies such as neuroimaging or brain-computer interfaces (Glannon, 2009). Any neural device which connects the brains of individuals to the Internet, opens the possibility of tracking or manipulating the mental experience of a given individual. For example, the algorithms used to target advertising, calculate insurance premiums, match couples or potential partners on internet sites, would be considerably more accurate if they were based on our neural information.

Given our current state of the art, it is relatively easy to obtain an extraordinary level of personal information from the data trails we leave on a daily basis: from geographical locations to consumption of goods and services patterns. Deep learning methods are used to perform multi-dimensional

data analysis (Bengio et al., 2013). The 2020 research used movement data of patients, in order to identify the severity stage of Alzheimer 's disease (Bringas et al., 2020). The previous study suggested that mobility patterns obtained from smartphones during people's daily activities were useful when diagnosing the first signs of cognitive decline (Nieto-Reyes et al., 2017).

The relationship between the right to privacy and neural data is a complex and evolving issue. Unlike sensitive patient data obtained from medical devices in clinical settings, which are basically protected by health legislation, the data surrounding consumer neurotechnologies are largely unregulated. As technology advances, so does the ability to collect, analyse, and manipulate neural data increases. A range of different concerns are raised.

First, individuals have the right to be informed about the collection and use of their neural data. Secondly, the issue of defining who is the owner of neural data is of key importance. Thirdly, since neural data is highly sensitive, there is the risk that it may reveal intimate details, such as the emotions and cognitive functions of an individual. Fourthly, neuroethics addresses the ethical implications of neuroscience and the use of neural data. In fifth place, existing legal frameworks may need to be adapted to address challenges posed by neural data. In sixth and last place, it is crucial to ensure that the use of neural data is aligned with societal values and norms, due to the damage that may be caused. As a response to these concerns, different policy and regulatory approaches have been proposed, in the aims of controlling access to and disclosure of neural data.

The law will be aimed at consumer-level brain technologies. Jwa and Poldrack propose to develop a legal prohibition against the misuse of information derived from neuroscience data, "*in order to provide protection against privacy risks of neuroscience data (sic…), without unduly limiting open science practice for advances in neuroscience*" (Jwa, Poldrack, 2022). Some legislation has already been enacted. For example, the state of Colorado in the USA, extends by law the privacy rights to neural data which is being increasingly sought after by technology companies (Moens, 2024). The Act expands the definition of 'sensitive data' in the Colorado Privacy Act to include two newly defined terms: 'biological data' and 'neural data'. The former includes data generated by the technological processing of an individual's physiological properties, body or bodily functions. In this way, it may include data generated from an individual's implants or wearables. Biological Data must be "used or intended to be used . . . for identification purposes." (Von Solms, Von Solms, 2018). With regard to neural data, the Colorado law states that because "*since neural data contains distinctive information about the structure and functioning of individual brains and nervous systems, it always contains sensitive information that may link the data to an identified or identifiable individual.*"

These six different challenges mentioned are new and are born out of the use of AI. Together, they all help to characterise a new right that needs to be recognised by law: the right to mental privacy.

Possible legal answers to the new threats

Informed consent

Informed consent has an internationally recognised legal basis. It is considered a fundamental principle both in legal and ethical

frameworks. The concept of informed consent is rooted in the respect for the autonomy of individuals, and their right to make informed decisions about their own bodies, including participation in research or medical procedures. Since individuals have the right to know why and for what purpose their data is collected, why should the same principle not be applied to the collection and use of their neural data?

While there is no single global law governing informed consent, several international declarations and guidelines emphasise its importance. One of the first international instruments, the Nuremberg Code, developed in the aftermath of World War II, laid the foundation for ethical principles in human experimentation. It emphasises voluntary informed consent as a central requirement.

The Declaration of Helsinki, developed by the World Medical Association (WMA), is a widely accepted set of ethical guidelines for medical research involving human participants. It emphasizes the need for informed consent and outlines specific requirements for the ethical conduct of research. Many countries incorporate the principles of the Declaration of Helsinki in their national regulations.

The Council for International Organisations of Medical Sciences (CIOMS) in collaboration with the World Health Organisation (WHO), adopted the International Ethical Guidelines for Biomedical Research Involving Human Subjects. These guidelines provide recommendations for the ethical conduct of biomedical research, and stress the importance of informed consent, describing the necessary elements of the informed consent process.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has issued several declarations relevant to bioethics. The significance of informed consent is emphasised in each of these papers. The Universal Declaration on Bioethics and Human Rights underscores the need for free and informed consent in medical research and healthcare.

Since neural data is mainly collected through medical procedures, the informed consent of the patient is crucial. This criterion will guarantee that people are aware of the intent, reach, and possible repercussions of having data on their brain activity collected.

While the international guidelines mentioned above provide a framework for informed consent, the specific enforcement may vary at domestic level. Some countries incorporated these international principles into their domestic legal frameworks in the area of health care. At a private level, both researchers and healthcare practitioners are expected to adhere to ethical standards and comply with the law. A first step could most possibly consist of incorporating into international declarations (known as soft law) informed consent as a requirement in practices related to neural data. Thus, from non-binding norms, we can move on to binding international law treaties and then into the domestic law of States.

Ownership of neural data

The issue of determining who is the owner of neural data is significant. It is not only an ethical, but a legal question. From both perspectives, we may affirm that neural data belongs to the brain of each individual. As far as individuals generate neural data, they have a legitimate claim to ownership and control over how the data is used. This perspective emphasises the autonomy and the right to privacy of individuals concerning information derived from their brain activity.

Establishing who owns neural data can depend on various factors, including the context in which the data is collected: such as during medical treatment or research studies. It can also depend on the nature of the data, and legal frameworks in place. In such cases, agreements or legal terms may dictate ownership. For instance, in neuroscience research, the ownership of neural data may be governed by informed consent agreements. In other legal frameworks, such as an employment relationship, ownership may be subject to employment or institutional policies. In collaborative academic research involving multiple stakeholders, agreements regarding data ownership and sharing should be clearly negotiated and established.

There are on-going legal and ethical discussions about neural data ownership. Some researchers consider academic knowledge, intellectual property rights, and ownership to be critical issues, "particularly in a context where data sharing and data protection laws vary from one country to another" (Ochang et al., 2024). As technology advances, there is a need for transparent and ethical practices which respect the rights and interests of individuals while also fostering scientific progress and innovation.

Protection against unauthorised access

The brain information of any individual registered in neurological devices can be accessed without the owner's notice. Violation at the neural level can be more dangerous than a conventional violation, since it may bypass the level of conscious reasoning, leaving people without any protection to prevent them from having their mind read. Ensuring robust security measures to protect neural data from unauthorised access, misuse, or data breaches is crucial. As a result, brain waves should be protected not only as personal data, but also as generators of data. Paul Wolpe suggests that in the face of fear State oppression, a line should be drawn limiting State meddling in the use of mind-reading technologies:

"The skull must be designated as a domain of absolute privacy. No one should be able to probe an individual's mind against their will. We must not allow it with a court order. We must not allow it for military or national security. We should renounce the use of technology in coercive circumstances, even though its use may serve the public good" (Wolpe, 2009).

Stanley also affirmed that "non consensual mind reading is not something we should ever engage in" (Stanley, 2012).

Domestic laws should deal with the activity of neurons, since they constitute the support of our thought and mind. Neuronal activity may not be extracted from the brain without the consent of the individual and neither could it be used commercially. The mind consists of the person and the activity of his neurons. Both belong to each of us exclusively, unless we decide to share them. In *Carpenter v. the United States*, it was claimed that unauthorised entry into digital cell phone data breaches the wall of privacy with painstaking and organised intrusion into private affairs (Travieso, 2019). How much more damage is done, we add, if the information accessed is related to our neural activity data?

Neuroethics

Neuroethics is a multidisciplinary field which explores the ethical, legal, and societal implications of advances in neuroscience and neurotechnology. It addresses questions related to the responsible use of neuroscientific knowledge and the ethical implications

of interventions which affect the brain and nervous system.

This new science "studies the implications of neuroscience for human self-understanding, ethics, and policy" (Johnson, Rommelfanger, 2018).

AI technologies, particularly those related to neural networks, are being increasingly used in the field of neuroscience. AI can aid in the analysis of complex brain data, contribute to the development of brain-computer interfaces, and impact various aspects of neuroscientific research and medical applications.

Concerns about individual privacy, informed consent, and the appropriate application of AI algorithms in the processing of neural data all form part of the ethical use of AI in neuroscience research. We find three potential danger scenarios. First, the development of brain-computer interfaces (BCIs) which enable direct communication between the brain and external devices raises ethical questions about autonomy, identity, and potential enhancements. Secondly, there are ethical implications when using AI-driven technologies for cognitive enhancement and performance improvement. Thirdly, with AI being employed in analysing and interpreting neural data, concerns about the privacy and security of sensitive information become paramount.

Legal protection

As soon as consensus is reached, current legal frameworks are evolving to address the unique challenges posed by neural data. Until now, values and principles have been adapted to the new challenges, as has traditionally happened. The speed of technological change may make the concept of adaptation obsolete, and legal change should then become more radical. In any case, legal protections for privacy may need to be extended, modified or formulated from scratch, in order to encompass the intricacies of brain-related information. We are in the presence of digital disruption which may generate legal disruption. Neuroscientists have been attempting to describe the results of neuroscience through legal norms, in order to review legal standards, norms and rules, for further precise formulation. It would more accurate to state that the neurobiological approach to legal norms and consequences provides and enhances new legal effects by modifying the rules which govern the interaction between classic norms and neuroscience.

As a general principle in relation to the protection of neural data, each owner should expressly state their willingness to share the data, regardless of the device from which they do so. This opt-in procedure must be safe and secure, including information regarding who will use the data, for what purposes and for how long. This is similar to that required at present in relation to personal information. Based on that principle, other issues also are in need of legislative definition. For example, restricting the possibility of giving up one's neural data or accepting the incorporation of certain data into the brain in exchange for financial rewards.

Neuro-values and principles

The concept of neuro-values and neuro-principles does not have a universally consensual definition. A 2021 comprehensive study on the responsible instrumentation of neurotechnologies states the need for ethical sensitivity and guidance: "regulators, researchers, and companies should prioritise working with and for society, taking on the responsibility to ensure transparen-

cy and responsible leadership" (Goering et al., 2021). Among the ethical and legal principles based on common values which may be applied with respect to the use of neurotechnologies, we find respect for autonomy, beneficence, justice, privacy, transparency, and non-maleficence. Many of them are customary principles of law recognised by national legislations. Nevertheless, recognition should aim to endow them with new insights, in order to render them useful to resolve the threats posed by AI. Even though these principles are not explicitly labelled as neuro-values, they may provide a foundation for ethical decision-making in the field of neuroscience applications due to the unique nature of neural data and the potential impact of neurotechnologies.

As happens when patients with disorders of consciousness after severe brain injury need surrogate decision makers, and when neuroscientific research and interventions may affect neural data, individuals should have the right to make decisions about their own brain-related information. This involves addressing issues of access to neurotechnologies, avoiding discrimination, and ensuring that the benefits of research are shared broadly. At this stage, the principle of precaution should guide decision-making at all stages. As the Human Rights Council affirms, "Such a general principle remains crucial and cannot be understood as an impediment to scientific research or technological innovation but as guarantee to ensure respect for ethical values and avoiding irreversible damage or unacceptable risks" (Ienca, Andorno, 2017). Open communication and transparency in research and the development of neurotechnologies help build trust among stakeholders, including research participants, patients, and the wider public. Last, non-maleficence emphasises the obligation to do no harm, including minimising risks associated with neuroscientific research and applications and ensuring that potential harms are outweighed by potential benefits.

Individual privacy and mental integrity

There is a significant relationship between the individual right to privacy in the context of neurotechnologies and neural data, and mental integrity. Both privacy and mental integrity are crucial aspects of ethical considerations related to advancements in neuroscience and neurotechnology.

Mental integrity is concerned with preserving the autonomy and integrity of an individual's cognitive processes and mental functions (Bublitz, 2013). The use of neurotechnologies, especially those which directly interact with the brain, raises questions about the potential impact on cognitive autonomy and mental integrity. Furthermore, cognitive freedom is related to mental integrity, when it asserts the right of individuals to control their own mental processes and the right to make autonomous decisions about cognitive enhancements or interventions.

The ethical use of neurotechnologies should avoid coercion or manipulation which could compromise an individual's mental integrity. This should also take into consideration that mental integrity is essential to anticipate and prevent unintended consequences of neurotechnological interventions, particularly those which may impact an individual's mental well-being (Bublitz, Merkel, 2014).

Striking a balance between scientific progress and the protection of individual rights is crucial in this evolving ethical landscape. There are those who advocate the creation of a new neuroright to mental integrity (Tesink et al., 2024). In any case, the protection

of the right to privacy in the face of the advance of neurotechnologies serves the purpose of protecting mental integrity. Whatever legal form it takes - an autonomous right or as part of the right to privacy - it is essential to consider the protection of the mental integrity of each individual. The law must protect individuals against unauthorised third-party intrusion into their brain data, and prevent the unauthorised collection and leakage of such data.

There is an increasing availability of consumer-grade brain-computer interfaces connected to the Internet, which for instance, adopt the form of dynamic exchange of information between the customer and a company. The legal structuring of the customer interface refers to the following three types of exchanges and interactions that can take place: (i) face to face; (ii) personal but remotely; and (iii) electronic. Every day more and more people are becoming users of neurological devices (Sommaggio, Mazzocca, 2020).

The right to mental integrity

The right to mental integrity – also called mental inviolability, – stands as a significant tenet within the framework of human rights, ensuring safeguarding against unwarranted intrusion into an individual's mental domain. Mental integrity is defined by the absence of stimuli which suppress consciousness, manipulate thoughts, or exert coercive influence over a person's volitional faculties. Moreover, it denotes the unrestricted execution of actions in alignment with an individual's cognition and volition. The definition of mental integrity proposed by researchers is "the ability to formulate thoughts, judgments, and intentions, make plans and implement them without direct external interference of any kind due to neurotechnology" (Lavazza, Giorgi, 2023). Afterwards they added to this proposition that mental integrity must be conceived as the "individual's mastery of his mental states and his brain data so that, without his consent, no one can read, spread, or alter such states and data in order to condition the individual in any way" (Lavazza, 2018).

Mental integrity encompasses protection against psychological aggression, degradation, discriminatory practices, imposition of external ideologies, and manipulation of consciousness (Semeshko, Sukhanova, 2021). Furthermore, it encompasses the right to confidentiality concerning psychological data and acknowledgment of an individual's mental and emotional susceptibilities. The adherence to the right to mental integrity yields numerous practical implications, such as:

- Safeguarding against psychological violence;
- Establishment of relational boundaries;
- Ensuring psychological well-being within a professional environment;
- Shielding against societal and governmental pressure.

Neglecting the recognition of the right to mental integrity can lead to severe repercussions on an individual's health and overall welfare. Hence, it is imperative to acknowledge and uphold this right as an integral component of safeguarding fundamental human rights and liberties.

The foundational instruments supporting the right to mental integrity include:

(i) The Universal Declaration of Human Rights (1948), with Article 12 emphasising protection against arbitrary interference in personal and family life;

(ii) The European Convention for the Protection of Human Rights and Fundamental Freedoms (1950), recognising the right to re-

spect for private and family life under Article 8, encompassing mental integrity;

(iii) The United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984), which encompasses safeguards against psychological forms of torture and ill-treatment;

(iv) Legislation across numerous countries worldwide includes provisions safeguarding individual mental integrity by guaranteeing confidentiality of medical records and psychological care.

Together with various legal frameworks, these instruments establish the foundation for protecting the right to mental integrity, thereby imposing upon States and society the obligation to honour and safeguard this crucial entitlement for all individuals (Douglas, Forsberg, 2021).

Illustrative instances underscoring the significance of upholding the right to psychological integrity include workplace harassment and psychological maltreatment upon an employee's rights within the workplace, resulting in a transgression of their psychological integrity; discrimination based on mental health; or unauthorised disclosure of medical records.

In conclusion, the infringement upon the right to mental integrity can exert profound ramifications on an individual's physical and psychological well-being. Hence, it is imperative to uphold and safeguard this right within the purview of legal and ethical frameworks.

A working definition for a right to mental integrity

The right to mental integrity constitutes a fundamental human right safeguarding the inner realm of an individual, including their thoughts, emotions, and feelings, against external influences. This right is indispensable for upholding the dignity and freedom inherent to every individual. The notion of personal integrity encompasses both physical and mental aspects, as articulated in Article 3 of the Charter of Fundamental Rights of the European Union and Article 5 of the European Convention on Human Rights.

Throughout the XX century, with an increasing recognition of conditions and illnesses capable of affecting human consciousness, there has been a proliferation of legal norms aimed at protecting and advocating for the rights of individuals grappling with mental illness. Mental disorder is typified by the clinically significant impairment in cognitive function, emotional regulation, or behaviour, often accompanied by distress or severe functional limitations. The term "mental health disorder" encompasses a spectrum of conditions, including mental disorders, various forms of psychosocial disabilities, and other pathological mental states which entail substantial distress, functional impairment, or risk of self-harm (World Health Organisation, 2022).

However, with the exception of individuals afflicted with specific disorders, everyone is susceptible to mental or cognitive impacts stemming from psychological violence, threats, manipulation, and similar factors. These forms of exposure can adversely affect both an individual's psychological well-being and their capacity for decision-making. Consequently, the following definition emerges: the right to mental integrity constitutes a fundamental human right ensuring protection from any interference capable of compromising one's mental health. This right encompasses freedom from torture, cruel, inhuman, or degrading treatment or punishment; the right to privacy and family life; the right to freedom of thought, con-

science, and religion; and access to healthcare services.

The human psyche, as an intricate mechanism, not only influences the mental and physical well-being of the individual but also has ramifications for those in their surrounding environment. Considering the conflicting nature of certain rulings, it becomes apparent that any litigation involving the protection of the right to mental integrity should be examined not solely based on available documentation but also on precedent set by prior cases. Given the rapid pace of human advancement and the emergence of entirely new legal categories pertaining to human cognitive capacities (such as neurolaw), protecting the mental facets of human functioning is an indispensable aspect of ensuring human rights protection as a whole.

The right to mental integrity in Russian legal doctrine

Within Russian law, the right to personal inviolability is codified in Article 22 of the Constitution of the Russian Federation, which delineates the freedom and personal inviolability afforded to all individuals. This provision was derived from Article 5 of the Convention for the Protection of Human Rights and Fundamental Freedoms and integrated into Russian legislation. Traditionally, the Russian legal doctrine distinguishes between physical and mental inviolability within the realm of personal inviolability.

The concept of inviolability, defined as the right of a citizen to state protection and protection against unlawful infringements upon their person, is closely linked to the notion of personal autonomy. Inviolability entails the preservation of the integrity of an individual's personal sphere, shielding it from any encroachment. This personal sphere encompasses both the entirety of a person's interests, aspirations, and needs as the intangible foundation for the exercise of freedom of behaviour, as well as the entirety of their actions and movements as the tangible basis for the exercise of freedom of behaviour. Hence, the freedom of conduct of an individual, rooted in non-material motivations, is achieved through actions of a material nature, facilitated by bodily movements and activities employing the body as a means of realisation. As long as an individual's freedom of conduct does not infringe upon the freedoms of others or contravene societal interests as expressed in laws, they retain autonomy and inviolability.

Thus, inviolability serves as the objective of law, wherein the law functions as the mechanism to ensure the enjoyment of the possessed good. Inviolability, as a good, encompasses the entirety of an individual's personal sphere, encompassing both physical and mental dimensions. The subject of mental inviolability pertains specifically to the mental realm of the individual.

The right to freedom and personal inviolability is one of the most crucial fundamental human rights, and its significance for the legal standing of any individual in modern society cannot be overstated. Simultaneously, this right, possessing significant independent value, plays a pivotal role in the realisation of the entire array of fundamental human rights and freedoms. Clearly such a role stems from the unique nature of this right, without which it would be difficult to envisage an individual's full participation in any social relations. As emphasised by Professor A.Y. Kapustin, there is currently a "shift towards prioritising issues of personal freedom and social justice in social relations" (Kapustin, 2010)

The European Court of Human Rights (ECtHR) underscores that the right to liberty

and security of the person holds paramount importance for a "democratic society"[1].

In order to grasp its understanding within the context in which the concept of "freedom" is employed in formulating the "right to liberty and security of the person", it is imperative to confine the consideration of freedom solely to the legal sphere and to link it explicitly to a specific bearer: the individual entitled to liberty and security of the person.

Thus, within the context under consideration, the discourse revolves around the legal construct of human freedom. However, this alone does not suffice, since such an approach may yield an overly expansive scope (Orlova, 2007).

In order to discern the international legal approach to interpreting the concept of "personal inviolability", we can look at the precedent set by the interpretation of the provisions of Article 5 of the Convention. The European Commission of Human Rights (hereinafter referred to as "the Commission") asserted that the terms "liberty and inviolability" should be construed together and solely pertain to physical liberty and inviolability. Furthermore, the Commission underscored that "liberty of the person" within the purview of paragraph 1 of Article 5 of the Convention signifies freedom from detention and imprisonment, while "security of the person" denotes protection against arbitrary encroachments upon this freedom.[2] It is noteworthy that the second clause of paragraph 1 of Article 5 of the Convention, which enshrines the right to liberty and security of the person, elucidates the essence of constraining this right through the notion of "deprivation of liberty" rather than "deprivation of liberty and security of the person" or any alternative terminology. In essence, there exists an inseparable link between the concepts discussed, suggesting the absence of an autonomous interpretation of the concept of "personal inviolability" as employed in the Convention. However, it is worth noting that the Human Rights Committee adopts a somewhat divergent stance, viewing the right to personal inviolability as possessing a "horizontal effect", extending its scope to encompass private relations under the Convention.[3]

Russian legal doctrine, however, offers a distinct approach to interpreting the concepts of "freedom" and "personal inviolability" within the context of the aforementioned right.

Professor B.S. Ebzeyev observes that "the legal impact on the individual … primarily concerns the regulation of relations in the realm of individual freedom and security" (Ebzeyev, 1982).

[1] See, inter alia, Application nos. 2832/66, 2835/66, 2899/66, De Wilde, Ooms and Versyp v. Belgium, ECHR Judgment of 18 June 1971, § 65; Application no. Belgium, ECHR Judgment of 18 June 1971, § 65; Application no. 6301/73, Winterwerp v. the Netherlands, ECHR Judgment of October 24, 1979, § 37. Hereinafter, the official database of the ECtHR "HUDOC" is used as a source of publication of the acts of the ECtHR and the now defunct European Commission of Human Rights. HUDOC. European Court of Human Rights. Available at: https://hudoc.echr.coe.int/eng#{%22documentcollectionid2%22:[%22GRANDCHAMBER%22,%22CHAMBER%22]}.

[2] See: Application no. 5877/72, X. v. the United Kingdom, European Commission of Human Rights Decision of 12 October 1973, § 2; Application no. 5573/72, A.; B.; C.; D.; E.; F.; G.; H. and I. v. Federal Republic of Germany, European Commission of Human Rights Decision of 16 July 1976, § 28.

[3] William Eduardo Delgado Páez v. Colombia, Communication No. 195/1985, U. N. Doc. CCPR/C/39/D/195/1985 (1990). University of Minnesota Human Rights Library. Available at: http://www1.umn.edu/humanrts/undocs/session39/195-1985.html

In this context, it is intriguing that prominent Soviet scholars, when considering the category of "freedom" in the criminal-legal context, highlighted its association with freedom of movement and self-determination (Noy, 1965), as well as its simultaneous comprehension in both physical, social, and socio-psychological dimensions (Sundurov, 1980).

Currently, when discussing Article 22, Part 1 of the 1993 Constitution of the Russian Federation, which safeguards the right to freedom and personal inviolability, certain Russian experts highlight that it encompasses "human freedom as a component of personal rights and freedoms of citizens, delineating two distinct facets: 1) inviolability of personality; 2) inviolability of private life". The right to personal inviolability encompasses physical, moral, and mental inviolability, as well as personal security. Consequently, this right is construed in a significantly broader manner when compared to international law, encompassing, among other things, the inviolability of private life, moral integrity, physical well-being, and mental sanctity. Another scholar emphasises that "human inviolability encompasses both physical integrity (life, health) and spiritual integrity (honour, dignity)" (Miroshnikova, 2004). While there may be minor variations, this viewpoint resonates in various commentaries on the Russian Constitution and academic literature. Nevertheless, narrower interpretations of the aforementioned right are also present, aligning more closely with or mirroring principles of international law.

Another terminological challenge pertinent to a comparison of Russian doctrinal perspectives with international legal approaches, regarding the essence of this right, remains relevant. This challenge arises from the fact that the term "inviolability", when rendered into English as "security" or into French as "sécurité" or "sûreté", can also be directly translated into Russian as "security". Such a literal translation may pose difficulties when referring to texts of international and foreign documents inaccurately translated into Russian or another language. These challenges have frequently been subject to scholarly analyses. As Kashirkina A.A. and Morozov A.N. note "the problem of legal translation of international legal acts … is very significant in the legal interpretation of the document, which directly mediates its subsequent enforcement" (Kashirkina, Morozov, 2019).

For example, A.Kh. Abashidze and I.A. Abdalla highlight in a collaborative study that "legal norms endorsed in the legislation of several Arab states, permitting encroachment on the security and inviolability of the individual, had a detrimental impact on the provisions of the Arab Charter, which does not explicitly mention personal inviolability. It solely references personal security, which inadequately encompasses the scope of personal inviolability but represents only a portion thereof" (Abashidze, Abdallah, 2000). It is worth noting that the 1994 Arab Charter on Human Rights (now defunct) referred to in this discussion was originally adopted in Arabic. Referring to the English translation of this Charter by the United Nations would not support the authors' assertion, since both Article 5 and Article 8 of this Charter entrench the right to liberty and security of the person. It appears that Professor A.Kh. Abashidze and I.A. Abdalla could have arrived at this conclusion only by referencing the original text of the document. If indeed accurate, this raises doubts regarding the fidelity of the aforementioned translation of the Charter into English.

Furthermore, the challenges in scientifically comprehending a concept such as "personal security" are evident in the significantly diver-

gent approaches to its interpretation. While some viewpoints suggest that personal security is a narrower concept than personal inviolability, other scholarly works argue that, in a narrow sense, personal security is synonymous with personal inviolability. In a broader sense, it is understood as a "universal subjective right forming the foundation for the preservation and practical exercise of the entire system of constitutional rights" (Nikitin, 2005). In the course of lectures on the theory of state and law edited by Professors N.I. Matuzov and A.V. Malko, reference is made to the right to personal security and inviolability. Regardless of which approach to correlating these concepts is deemed more accurate, it seems justifiable to employ the concept of "personal inviolability" rather than "personal security" in the official texts of international documents in the Russian language, as well as in their official translations into Russian, within the context of the right under consideration (Matuzov, Malko, 2001).

In order to comprehend the legal essence of the right to liberty and security of the person, it is advisable to analyse its legal codification. Literature on the matter suggests that "the legal interpretation of human rights, as well as any social value, should be conducted in two directions: on one hand - theoretical elucidation of their legal content and its legal and doctrinal specification, and on the other hand - theoretical synthesis of modern legal regulation practices" (Varlamova, 2009). Hence, the legal interpretation of the content encapsulated within the right to liberty and security of the person is intricately linked to an examination of the practices surrounding its legal codification. Simultaneously, the international legal perspective necessitates primarily the international legal codification of this right to be considered, although several aspects concerning domestic safeguards of this right should also be acknowledged.

Moreover, the European Court of Human Rights (ECtHR) does not endeavour to mitigate the pertinent terminological challenges, opting for varied wording when addressing circumstances in cases involving the detention of individuals with mental illnesses. While the text of the Convention employs the term "persons of unsound mind" (rendered into Russian in the official translation of the Convention as "mentally ill persons"), the ECtHR and the Commission utilise phrases such as "psychopathic disorder", "personality disorder", "mental disorder", "mental instability" , and others.

In the practice of the Commission, there is also an instance of departure from a restrictive interpretation of the provisions of the relevant norm. In the case of *X. v the Federal Republic of Germany*, the Commission determined that the applicant's detention was lawful and that the applicant had been rightfully classified by the German judicial authorities as a mentally ill person within the context of Article 5 § 1 (e) of the Convention. This decision was made despite the medical report indicating that the applicant did not have a mental disorder. The Commission asserted that the concept of a "mentally ill person" in the context of Article 5 § 1 (e) of the Convention should be construed more broadly, encompassing "abnormal personality traits" which do not constitute mental illness. The rationale behind this broader interpretation was to ensure societal protection against individuals such as the applicant, who, according to expert psychiatric reports and the findings of the German courts, demonstrated a propensity for aggressive behaviour on multiple occasions, albeit not constituting criminal acts. This approach by the Commis-

sion raises questions regarding the Court's advocated need for a restrictive interpretation of the provisions of Article 5 § 1 of the Convention on the one hand, and the Commission's broader understanding of the term "mentally ill person" on the other. In our view, if the latter approach is to be applied, it must be substantiated by relevant domestic legislation, which may (and in this case, should) provide for the possibility, under certain conditions, to classify individuals as mentally ill even if they do not have a diagnosed mental disorder.

Therefore, the determination of the interpretation of the term "mentally ill person" falls within the purview of individual States and is determined based on their respective national legal standards. Nevertheless, when referencing relevant provisions of national law, the Court evaluates them against the requirements outlined in the Convention. Considering factors such as the necessity for a restrictive interpretation of the exhaustive list of grounds outlined in Article 5, paragraph 1 of the Convention, the objectives and aims of Article 5, which preclude arbitrary deprivation of liberty, and the significance of the right to liberty within a democratic society, the ECtHR concludes that domestic legal provisions align with Convention standards. It is consequently emphasised that under no circumstances can the provisions of Article 5(1)(e) of the Convention be interpreted as permitting the detention of an individual solely on the basis of deviating views or behaviour from the societal norm.

Conclusion

The global community now acknowledges the paramount importance of prioritising human rights as an intrinsic value. This is particularly relevant amidst the circumstances of the 2020 pandemic, wherein the vulnerability of individuals, their lives, and health, as well as the protection of their rights and legitimate interests, has garnered heightened significance. Our article underscores the profound impact of privacy and mental well-being on both individual life trajectories and societal dynamics at large. It examines the normative framework governing the right to privacy and mental well-being on an international scale, while also scrutinising Russian national legislation. Furthermore, the article analyses the terminology and concepts delineating the rights to mental privacy and integrity, while exploring scientific methodologies within legal discourse concerning this subject matter. Proposing a definition of both the "right to mental privacy and integrity", the article advocates for its formal inclusion within domestic legislations, asserting its indispensable necessity. International legal instruments, treaties and domestic legislations underscore the imperative of safeguarding human rights and freedoms, encompassing the protection of privacy and physical and mental integrity. Consequently, concerted action by states and civil society is imperative, in order to develop comprehensive strategies for mitigating psychological harm and ensure equitable access to mental health services for the people.

AI poses new threats to individual privacy. Since AI is exceptionally good at analysing vast amounts of data, including our online activity, purchases, and even physical movements, AI can create detailed profiles of us, revealing things we might not even be aware of ourselves. As AI becomes more sophisticated, it becomes better at hacking and breaching security systems. This could lead to our personal information being exposed or stolen. AI can also potentially crack anonymised datasets, revealing the identities of people who considered their data to be private.

AI may also affect mental integrity by manipulation and persuasion, creating highly personalised content that plays on our emotions and biases, manipulating us into buying products, voting for certain candidates, or even believing things that are not true. It also may also expose us to addictions and algorithmic bias, such as addictive experiences, such social media or gaming (Angwin, Larson, 2022). As AI becomes more complex, it would be harder to predict how it might influence our thoughts and behaviour. This uncertainty can be unsettling and lead to a sense of unease.

Addressing the ethical and legal challenges to neural data requires a multidisciplinary approach involving input from ethicists, legal experts, neuroscientists, and policymakers. It is essential to strike a balance between advancing scientific understanding and protecting individual privacy in navigating the evolving landscape of neural data.

As the field of neuroscience and neurotechnology evolves, it will be essential for researchers, ethicists, policymakers, and society to engage in on-going discussions to adapt and refine ethical principles and guidelines. Establishing clear ethical frameworks will help guide responsible research, development, and application of neuroscientific knowledge and technologies.

Ultimately, in the pursuit of safeguarding the rights to privacy and mental integrity of individuals, active collaboration among governmental bodies, civil society organisations, medical establishments, and educational institutions is indispensable. Collaborative endeavours aimed at formulating prevention programmes for informed consent when we release our data, establishing strong controls on big data storage, conducting educational initiatives, and cultivating conducive social environments are pivotal in attaining the shared objective of safeguarding privacy and mental integrity within society.

Finally, the right to privacy in the context of neurotechnologies and neural data is closely tied to the broader concept of mental integrity which we analysed in reference to Russian legislation. Respecting the privacy rights of individuals helps to protect the integrity of their cognitive processes and mental autonomy and inviolability. Ethical considerations, informed consent, and regulatory frameworks are essential elements in responsibly navigating the intersection of privacy, mental integrity, and advancing neurotechnologies.

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