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**The Erosion of the Right to Freedom of Thought:
How to Safeguard Mental Autonomy in the Digital Age?**

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I. ABSTRACT

This thesis examines whether the existing human rights framework adequately protects the right to freedom of thought in the face of emerging digital and neurotechnological threats. It argues that although this right is formally recognised under international law, it remains poorly defined, weakly enforced, and increasingly vulnerable to erosion through algorithmic manipulation, behavioural profiling, and immersive persuasive technologies. Drawing on interdisciplinary sources from law, philosophy and science, the study demonstrates that current protections are insufficient to address the subtle yet profound ways in which mental autonomy is being compromised. It makes the normative case for strengthening the right's legal status, through doctrinal clarification, regulatory innovation, and integration into digital governance. The thesis proposes a multidimensional safeguarding strategy that includes legal reform, public policy, ethical design standards, public awareness, and critical education. Special attention is given to children as a uniquely vulnerable group, whose cognitive development is at risk without early interventions. Ultimately, the work calls for a shift from reactive legal protection to proactive societal cultivation of freedom of thought as a foundational condition for democracy, dignity, and self-determination in the digital age.

Keywords: Freedom of Thought, Human Rights, International Law, Mental Autonomy, Digital Age, Neurotechnologies, Cognitive Liberty, Algorithmic Manipulation, Artificial Intelligence, Digital Literacy, Children's Rights

II. TABLE OF ABBREVIATIONS

ACHR	American Convention on Human Rights
AI	Artificial Intelligence
BCI	Brain-Computer Interface
CJEU	Court of Justice of the European Union
DBS	Deep Brain Stimulation
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
fMRI	functional Magnetic Resonance Imaging
GDPR	General Data Protection Regulation
ICCPR	International Covenant on Civil and Political Rights
OECD	Organisation for Economic Co-operation and Development
OSCE	Organisation for Security and Co-operation in Europe
TMS	Transcranial Magnetic Stimulation
UDHR	Universal Declaration of Human Rights

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1. INTRODUCTION

From the moment we are born to our death, thoughts never stop. Even when we are sleeping, we keep thinking. These thoughts, whether impulsive or carefully weighed, are the bases of all our actions, guiding each word we speak and every choice we make. This inner space, which seems beyond access, is granted an absolute protection in international law through the right to freedom of thought, although it might be the only human right without any practical application. In fact, the right to freedom of thought is facing more and more infringements because of the growing abilities of new technologies to access our minds.

Numerous methods are used to read people's minds and manipulate their thoughts, ranging from intrusive data collection to algorithmic microtargeting, including emerging neurotechnologies. If there was a time when the mind was conceived as an entity invulnerable to external and unlawful interferences, today the "sovereignty over our minds"¹ is over. Upon examination of the minimal application of the freedom of thought, large discrepancies emerge between the theoretical absoluteness of the right and its practical implementation.

The right to freedom of thought remains an understudied topic in international law, largely because it was traditionally considered that our *forum internum*, the space inside our heads, was accessible to us only, unreachable by others, and thus did not need developed legal protection.² There is an almost complete lack of law clarifying what it actually entails to think freely or on the contrary, to have our mind manipulated. In fact, the concept of thought itself remains without legal definition. It is merely indicated as a supreme right in international treaties, as though mentioning it is sufficient for it to be fully effective. But sadly, the time when we could protect a right just by claiming its absoluteness is over, now is the time for precision, we need to explain how to actively safeguard freedom of thought.

Relevant literature has emerged over the past decade, trying to keep up with the rapid development of new technologies and proposing guidelines to protect the right to freedom of thought, while the law is staying embarrassedly silent. Whether it be lawyers, philosophers or even scientists, they have all understood the threats our minds are facing in this digital era and have proposed different interpretations of what the right actually entails, to protect it from a slow, yet certain erosion. The published works converge on why freedom of thought is

¹ S. McCarthy-Jones, 'The Autonomous Mind: The Right to Freedom of Thought in the Twenty-First Century', *Frontiers in Artificial Intelligence*, vol. 2. No. 19, 2019

² Bublitz, J. C., and Merkel, R. (2014). Crimes against minds: on mental manipulations, harms and a human right to mental self-determination. *Crim. Law Philosophy* 8

threatened but diverge on how to safeguard it. The existing legal framework tends to focus on indirect protection of the brain through data protection, privacy regulation and freedom of expression, rather than developing the foundations of this fundamental right.

This thesis aims to fill part of this gap by clarifying where existing legal frameworks fall short and proposing constructive ways to evolve or reinterpret the right to freedom of thought in light of 21st century challenges. I am not saying all interaction with our thoughts can be labelled as manipulation. The everyday conversations or the education we receive as a child and in school obviously have an influence on our way of thinking, but they can't be perceived as an impermissible influence. To understand where freedom of thought ends and manipulation of minds begins, this study will explore the very thin line between interaction and intrusion to one's thoughts, the second implying a coercive aspect, the absence of consent and often even knowledge of having the gate of our brain forced. It will delve deeper into the concepts at odds with freedom of thought, with a particular focus on the concept of mental autonomy which forms the basis of the right. There will also be a greater focus on the interplay of this essential human right and democratic process.

Through a consideration of both national and international law, science, politics and philosophy, I aim to identify trends and bring these together to find out if the current human rights framework is sufficient to protect the right to freedom of thought against the threats posed by new technologies in the 21st century.

To advance such solutions, the thesis will first put forward a necessary understanding of freedom of thought, both as a metaphysical concept and a human right. Having laid out these conceptual and legal foundations, the following three chapters will address the process of thought manipulation and assess the existing means protecting the mind against it, before offering potential pathways to safeguarding mental autonomy in practice.

Methodologically, this research adopts an interdisciplinary approach, weaving together philosophical discussions of mental autonomy, a legal critique of human rights standards, and contemporary findings from neuroscience. Its scope remains focused on manipulative interferences that lie beyond the normal influence of everyday social life, the actions that systematically undermine our capacity for full mental autonomy. It is not the intention to label every form of influence on our thoughts as manipulative. Rather, I hope to pinpoint the specific threats that effectively remove individual ability to think freely.

By shining a spotlight on this underexplored area, the thesis aims to contribute to ongoing conversations about human rights in the digital age, offering practical pathways for policymakers and scholars alike. The goal is to expand understanding of the once-inviolable inner realm of thought, ensuring that as we stand at the turning point of unprecedented technological capabilities, we do not lose sight of the mental autonomy at the very heart of human dignity.

2. UNDERSTANDING FREEDOM OF THOUGHT AS A METAPHYSICAL CONCEPT

2.1 Philosophical and Historical Foundations of Freedom of Thought

Understanding what constitutes thought, and what it means to think freely, is essential to grasp the erosion of freedom of thought in the digital age. Before addressing the legal dimensions of this freedom, it is necessary to explore its metaphysical foundation. This chapter argues that the concept of thought as inherently free must be reconsidered in light of technological developments that increasingly threaten the autonomy of the mind.

Freedom of thought, before becoming a legal norm, is fundamentally a philosophical concept. Philosophers have long agreed on its place as a central element of the Enlightenment ideals and foundation stone of liberal democracies.³

In his political monster Leviathan, Thomas Hobbes was one of the first to lay the basis of the modern understanding of what is labelled as thought. He distinguished belief from confession, the internal faith from the expression of that faith, what is termed the inner and the outer. He asserted that “internal faith is in its own nature invisible, and consequently exempted from all human jurisdiction”, and that “because thought is free”, “private man has always the liberty to believe or not believe in his heart those acts that have been given out for miracles”. However, “when it comes to confession of that faith”, Hobbes maintained that “the private reason must submit to public [reason]”.⁴ In other words, confession, the outer expression, can be restricted as it constitutes the external manifestation of belief. But belief itself, the inner sphere, is beyond reach, even for the absolute sovereign in Leviathan. And that, for the simple reason that no one possesses the power to compel citizens to have faith and believe. The inner realm, what happens inside one’s head, is beyond the reach of State.

Spinoza, writing shortly thereafter, similarly defended the impossibility of controlling another’s mind. He argued that “it is impossible for one person’s mind to be absolutely under another’s control. For no one can transfer to another person his natural right, or ability, to think freely

³ Bublitz, Christoph. (2014). Freedom of Thought in the Age of Neuroscience. *Archiv fuer Rechts- und Sozialphilosophie*. 100.

⁴ Thomas Hobbes, *Leviathan* [1651], ed. by R. Tuck, Cambridge University Press 1996, 306. The inner liberty is e. g. the central target of Carl Schmitt’s critique in his *Leviathan in the state theory of Hobbes: meaning and failure of a political symbol* [1938], ed. by G. Schwab/E. Hilfstein, University of Chicago Press, 2008.

and make his own judgments ... or be compelled to do so”.⁵ Henceforth, both Hobbes and Spinoza agreed on the lack of factual power to control “hearts and minds”. In their own minds, no means exist to enforce inner obedience and control one’s thoughts. By so, thought is always free because it belongs to the inner sphere, a place only accessible to ourselves.

This is what constitutes the core of the traditional understanding of freedom of thought. The *forum internum*, this place inside the mind where thoughts and beliefs are kept from the external world, cannot be accessed nor altered. This implies a certain absoluteness in the freedom of thought. Indeed, because the mind cannot be accessed, thoughts are free from manipulation, and the ability to think freely remains absolute.

However, these arguments are evidently false today.⁶ In the light of today’s modern tools, ranging from predictive algorithms and generative artificial intelligence, to emerging neurotechnologies, Leviathan would be able to reach inside its citizens’ minds, thus altering their thoughts and beliefs. If the mind was once impenetrable, the 21st century calls for a new understanding of the concept of thought for it to remain free.

Contemporary scholars heard this call and responded by offering modern insights into what freedom of thought means. Central to these reflections is the recognition that a close, even inextricable relationship exists between thought and its external expression, that the *forum internum* and *forum externum* are not hermetically sealed but are deeply interconnected. Thoughts can arise from the external world, as in the result of a conversation or the materialisation from what one witnesses. At the same time, every form of expression, whether it be speaking, writing, or action, originates from a thought. This thought may be intentional or unbidden, arising spontaneously like a spasm of the mind, wondering about matters we did not consciously choose to think about. Whatever the thought is, dissident or conventional, it happens inside the head, in this *forum internum*, a place theoretically accessible only to the bearer of the mind.

To think freely, then, is the freedom to have thoughts without having the obligation to express them.⁷ It is the liberty to keep inside your head whatever you do not want to express outside of it. The purpose of freedom of thought is then to enable mental autonomy.⁸ By guarding an

⁵ Baruch de Spinoza, *Theological-Political Treatise* [1670], ed. by J. Israel, Cambridge University Press 2007, 208

⁶ Bublitz (2014)

⁷ O’Callaghan P., Benziger F., blogpost: *The Right to Freedom of Thought in the Tradition of Eastern European States*, Jan 17, 2024.

⁸ S. McCarthy-Jones, ‘The Autonomous Mind: The Right to Freedom of Thought in the Twenty-First Century’, *Frontiers in Artificial Intelligence*, vol. 2. No. 19, 2019

individual's inner sphere from any infringements, protecting their *forum internum* from being unwillingly divulged, freedom of thought facilitates mentally autonomous individuals.

Mental autonomy is commonly understood as the specific ability to control one's own mental functions, like attention, memory, planning, concept formation, rational deliberation, or decision making.⁹ Thomas Metzinger, philosopher of the mind, explains that thought is composed of two key elements, which when put together enable mental autonomy. He names them the attentional agency and the cognitive agency.¹⁰

Attentional agency refers to the ability to control one's focus of attention. It is the first order of mental action where ideas are born, and thoughts appear in an unconscious way. Sometimes referred to as the "rule-of-thumb" thought,¹¹ this effortless system of thinking shared with animals, and often labelled as the instinct,¹² allows quick judgments without reasoning.

Cognitive agency, by contrast, builds upon attentional agency. After the first order of thought comes the mental work, the "rule of reason" thought¹³. This implies undertaking logical trains of thought to structure the ideas fusing inside the brain, to terminate violent fantasies, and guide one's behaviour. It is a slower but consciously controlled process of reasoning based on language, unique to human beings.

To act solely on the first order of mental action, to function only on desires and impulses without reflection is to fail to display of autonomy. There is therefore an idea of hierarchy of autonomy¹⁴ in the process of thinking which requires the cognitive agency to be mobilised to achieve mental autonomy. Without engaging this second order of thought, individuals remain unfree, their minds being governed by external influences rather than by self-directed reasoning.

However, the second order of thought does not have to be taken inside the head. Some philosophers argue that we need to move away from the conception that thought occurs solely in the head. They question the traditional boundaries made of skin and skull between the mind and the world, suggesting in fact, that the mind can extend into the world.

⁹ Metzinger, T. K. (2013). The myth of cognitive agency: subpersonal thinking as a cyclically recurring loss of mental autonomy. *Front. Psychol.* 4:931.

¹⁰ Metzinger (2013)

¹¹ McCarthy-Jones (2019)

¹² Metzinger (2013)

¹³ McCarthy-Jones (2019)

¹⁴ Frankfurt, H. G. (1971). Freedom of the will and the concept of a person. *J. Philosophy* 68.

Andy Clark and David Chalmers, founders of the extended mind theory¹⁵, advocate for a form of cognitive externalism based on the active role of the environment in shaping thought processes. To illustrate this idea, they give the example of an individual suffering from Alzheimer's disease, whose biological memory is severely compromised. To compensate, the individual writes down important thoughts and information in his notebook, consulting it whenever necessary. The notebook plays the same role as a biological memory, it stores and retrieves thoughts and memories.

To legitimise their claim, Clark and Chalmers propose a set of three criteria an external object must meet to qualify as part of the extended mind. First, the object has to be a constant in the person's life in such way that they will rarely take action without consulting it. Second, the information it contains must be directly and easily accessible. Third, the information retrieved must be automatically endorsed by the individual without critical reevaluation. In the example, the Alzheimer patient's notebook fulfils all three conditions. It is a constant tool for memory storage, easily available for consultation, and its content is trusted, since it was written by the individual himself.

Expanding on this theory, Simon McCarthy-Jones, Professor in neuropsychology, proposes that the internet now fulfils these criteria at a societal scale. He argues that Internet searches have digitally expanded our minds, offering new ways to store and retrieve memories¹⁶. With an estimated 13.7 billion Google searches conducted daily¹⁷, the Internet has become an ubiquitous, accessible, and largely trusted repository of information. In many cases, individuals consult it reflexively and endorse its results with minimal critical evaluation, effectively extending cognitive processes beyond the brain.

This section has clarified how the concept of thought evolved from an inviolable internal realm to a more complex, externalised process. Classical thinkers viewed thought as protected within the *forum internum*, but modern technologies and extended mind theories show that cognition now spans into the external world. Now that the process of thinking is more clear, the next section will explore the conditions under which thinking can occur autonomously, and what it truly means to think without manipulation or coercion.

¹⁵ Clark, A., and Chalmers, D. (1998). The extended mind. Analysis 58.

¹⁶ E. J. Marsh and S. Rajaram, 'The Digital Expansion of the Mind: Implications of Internet Usage for Memory and Cognition' (2019) 8 Journal of Applied Research in Memory and Cognition, 1.

¹⁷ DemandSage. (2025). Google Search Statistics 2025 (Top Picks). DemandSage.

2.2 Implications of Thinking Freely: The Absence of Manipulation

The previous section emphasised that freedom of thought is a liberty of choice. It is the liberty to choose whether to share what happens inside one's mind or to keep it hidden from the external world. This choice must be made autonomously, without coercion or undue influence. To think freely implies that no one has a claim against others that he has to be in a specific mental state or entertain particular thoughts.¹⁸ Freedom of thought is understood as an individual's right against others to remain free from interventions into thoughts and thinking processes and the mental machinery which generates them.

Therefore, individuals must be mentally autonomous to be free thinkers. This entails sovereignty over their mind¹⁹, that they maintain exclusive control over their own mental functions. No one can interfere with their mind and the formation of thoughts. Thus, mental autonomy refers to the independence required to form one's will, and the self-determination in both the choices one makes and the deliberative processes that lead to them.²⁰

The idea of mental state embraces all states of the mind, whether they be intentions, beliefs, perceptions, memories and emotions. Therefore, the negative obligation of not interfering with others' minds concerns their thoughts but also their emotions.²¹ Given the intertwined relation between emotions and thoughts, a thought can change an emotional state just like emotions can influence the direction and content of thought.

A vivid illustration of this interplay can be found in the media's coverage of the immigration. As Nussbaum has pointed out, mainstream media emphasises narratives of "waves" of migrants and focuses on isolated criminal incidents, fear and concern are rising, reshaping collective thought patterns toward hostility and xenophobia.²² This demonstrates how emotional manipulation can impair mental autonomy, interfering with one's mind in such way we lose our ability to think independently.

However, not every interaction with the mind constitutes manipulation. Anthropological and philosophical perspectives insist on the idea that thought cannot escape the thinker's immediate situation and existential imperatives. According to Michael D. Jackson, thinking arises within

¹⁸ Bublitz (2014)

¹⁹ McCarthy-Jones (2019)

²⁰ Metzinger (2013)

²¹ Bublitz (2014)

²² Nussbaum, M. C. (2013). *Political Emotions: Why Love Matters for Justice*. Harvard University Press.

the “lifeworld”, the realm of everyday situations, material circumstances, cultural practices.²³ Thoughts are contextual, they arise, occur, and transpire from the individual’s own social environment. He defends that beliefs reside in the immediate experiences that individuals live in their own communities.

In his reading of Hannah Arendt’s work, Jackson emphasises that when individuals engage in dialogue and expose themselves to others’ perspectives, they do so voluntarily, allowing different ideas to enter and challenge their existing mental frameworks. However, he explains that such influence is not considered as manipulation as the individuals willingly enter into discussion, letting new thoughts clash with their existing ones.

This process, which Arendt describes as “visiting imagination”, is the ability to imaginatively inhabit another’s viewpoint without surrendering one’s own.²⁴ She warns however, that individuals may act without thinking due to uncritical conformity and a lack of reflective judgment. When individuals cease to engage reflectively with opposing thoughts because they threaten their identity or worldview, then they no longer think. In such cases, the absence of “visiting imagination” signifies a failure of thought, not because of external coercion, but due to the refusal to exercise mental autonomy.

This raises the complex issue of education. One could argue that parental or scholarly education shapes cognition to such an extent that it may be considered as a form of indoctrination. Such statement is not completely absurd, as both education and teaching contribute to shaping thought patterns, cognitive capacities, and more broadly, the way children perceive the world.²⁵ The teaching power the State grants to schools and universities resembles to an invasive intervention into the students’ minds.²⁶ However, not all interaction with the mind is manipulative. The distinction lies in the nature of the influence, whether it respects the individual’s mental autonomy or exploits their ignorance and the vulnerability of their cognitive system.

To draw this line clearly, the philosopher Thomas Christiano distinguishes between legitimate influence and objective wrongful manipulation.²⁷ According to Christiano, the latter amounts to the action of manipulating a person who doesn’t have all the resources to avoid being

²³ M. D. Jackson, ‘Where Thought Belongs: An Anthropological Critique of the Project of Philosophy’ (2009) 9 (3) *Anthropological Theory*.

²⁴ Arendt, Hannah (1982) *Lectures on Kant’s Political Philosophy* (ed. Ronald Beiner). Chicago: University of Chicago Press.

²⁵ Bublitz (2014)

²⁶ Joseph Tussman, *Government and the Mind*, Oxford University Press 1977

²⁷ Thomas Christiano, Algorithms, Manipulation, and Democracy, *Canadian Journal of Philosophy* (2022), 52: 1

manipulated. For an act to qualify as manipulative, it must then be intentional, meaning its purpose is to undermine autonomy, and also clandestine, as the victims are not aware they are being manipulated. Manipulation, therefore, goes beyond mere persuasion, it constitutes a form of epistemic domination, undermining an individual's capacity for independent judgment.

Christiano also links thought manipulation to inequalities in informational power,²⁸ defending the idea that individuals become informed under unequal social conditions. On the one hand, those with greater access to reliable information, often correlated with socio-economic class, are better equipped to resist manipulation. On the other hand, citizens with less time, education, or access to trustworthy sources may operate on what he calls "low-information rationality," making them more vulnerable to manipulation. Therefore, the less someone is informed, the more they are susceptible to be manipulated, creating asymmetries of informational power.

Christiano identifies two key dimensions of informational power. The first is the capacity to access, seek out, and comprehend relevant information. The second is the power to disseminate information in ways that serve the interests of those who control its circulation. It is therefore the lack of informational power that makes individuals vulnerable to manipulation, particularly by those who possess such power.

This vulnerability is further amplified by what Christiano refers to as "cognitive dependence." He argues that individuals rely on a form of distributed cognition, wherein much of the knowledge that informs their own decision-making is held by others. In such contexts, mental autonomy is closely tied to the quality of one's informational network. Individuals embedded in environments with access to experts, such as doctors, lawyers, or highly educated peers, are more likely to encounter reliable information and are therefore less susceptible to manipulation.²⁹ Equipped with stronger epistemic resources, they are better positioned to resist cognitive interference, think independently, and ultimately exercise their freedom of thought.

Therefore, influence on thought is not inherently impermissible. Interpersonal dialogue, educational formation, and cultural engagement are essential to the development of human cognition. However, a critical ethical boundary must be maintained. Influence becomes objectionable when it crosses into manipulation, when it is covert in nature, exploits cognitive vulnerabilities, and undermines the individual's capacity for autonomous judgment. In such cases, the foundational conditions for the exercise of free thought are no longer preserved.

²⁸ Christiano (2022)

²⁹ Edwin, H., & Klausen, T. (1995). *Cognition in the Wild*. Cambridge, Mass.

The task then, is to define the boundary between permissible shaping and impermissible manipulation. Mental autonomy can only be preserved if individuals are protected from illegitimate interference with their thought processes. If every social influence were treated as a violation, it would undermine the very processes through which thought develops. But if manipulative structures are ignored, especially in contexts of power asymmetry, there is a risk of emptying the concept of freedom of thought of its substance. It is this balance, between necessary social influence and harmful cognitive manipulation, that this thesis seeks to explore.

2.3 A Cornerstone of Human Rights and Democracy

The recognition of freedom of thought as a legal and normative right was forged in the aftermath of the twentieth century's most violent political experiments. Its codification in international human rights instruments was a direct response to the atrocities committed by totalitarian regimes during and after the Second World War.

These regimes repressed public dissent by reaching into the internal space of the mind, reshaping individual identities and belief systems to make them wholly compliant with the interests and ideologies of the ruling regime.³⁰

In this endeavour to obtain ideological conformity, totalitarian systems employed different methods leading them to control the minds of their subjects. They influenced the free formation of thoughts and other aspects of individuals' inner selves on a metaphysical level, through indoctrination and propaganda. Their objective was not only to shape public opinion temporarily, but to fundamentally reconfigure individuals' cognitive and emotional structures by writing the narrative they desired. The goal was to have control over what their citizens perceived, how they interpreted information, and ultimately, what they believed to be true.

Indoctrination refers to the process of instilling ideas or beliefs in a manner that discourages questioning, critical analysis, or alternative perspectives.³¹ It often begins in early childhood education, when cognitive frameworks and trust in authority are still forming. As John Dewey warned in his seminal work *Democracy and Education*, education becomes indoctrination when it ceases to foster inquiry and instead conditions obedience through repetition and fear.³² Authoritarian regimes exploit this developmental window to install ideological worldviews as

³⁰ O'Callaghan P., Benziger F., blogpost: The Right to Freedom of Thought in the Tradition of Eastern European States, Jan 17, 2024.

³¹ Snook, I. A. (1972). *Indoctrination and education*. Routledge & Kegan Paul.

³² Dewey, J. (1916). *Democracy and Education: An Introduction to the Philosophy of Education*. Macmillan.

unchallengeable truths, rather than as contestable ideas. Over time, individuals internalise these beliefs not as externally imposed but as self-evident.

At the same time, propaganda is used to reinforce and emotionally charge the ideological content of indoctrination. In totalitarian regimes, State propaganda deliberately stimulates emotions like fear, hatred, or national pride. These powerful emotional triggers are used to reshape citizens' thoughts, controlling what they believe is true, who they see as enemies, and how they perceive themselves and the world. Effective propaganda works not by falsifying facts, but by selectively presenting information, framing it with emotionally resonant symbols, and saturating the environment with repeated narratives until dissent becomes psychologically uncomfortable.³³ For instance, in Nazi Germany, constant propaganda portraying Jews as dangerous led to emotional disgust and fear, which in turn altered people's thoughts, making previously ordinary citizens justify or support horrific policies. Here, emotions (fear and hate) were weaponised to transform rational thought. People no longer thought independently, their reasoning was emotionally preloaded. Political systems can manipulate emotions to control and restructure thought patterns on a massive scale.

An essential part of this strategy is to control information sources, building a State monopoly over what its citizens see, hear and at the end of the day, believe. Historically, auto-da-fé ceremonies exemplified this logic. The public ritual of book burning was not just punitive, it was epistemic theatre. These acts symbolically and literally eliminated alternative sources of thought, consolidating the State's claim to cognitive authority.³⁴ In Nazi Germany, Jewish, Marxist, liberal, or pacifist books were publicly destroyed. These events were not simply actions of censorship, they aimed to install fear and allegiance to Nazi ideology, eliminating the dissenting knowledge systems.

This same symbolic structure is dramatized in George Orwell's 1984, where the totalitarian regime of Oceania institutionalises the constant destruction and rewriting of history in the "Ministry of Truth."³⁵ Orwell's fictional world captures the psychological violence inherent in ideological purification, books are not only burned or edited, they are "vaporised". Their content is erased from public memory and private consciousness alike. The Party's control over reality is so complete that individuals come to accept contradictions ("War is Peace", "Freedom

³³ Ellul, J. (1973). *Propaganda: The Formation of Men's Attitudes*. Vintage Books.

³⁴ United States Holocaust Memorial Museum. (n.d.). *Book Burning*. Holocaust Encyclopedia.

³⁵ Orwell, G. (1949). 1984. Secker & Warburg.

is Slavery”) because their capacity to remember and think freely has been systematically dismantled.

Authoritarian regimes select the information citizens can rely on, monopolising the informational power, undermining the ability to think independently, ultimately annihilating freedom of thought. In modern totalitarian regimes, similar strategies are employed through State-controlled media, educational censorship, and mass surveillance, which suppress access and freedom to critical viewpoints.

These techniques aim not merely at public compliance but at what Michel Foucault called the “government of souls”, the moulding of individuals so that power is exerted through them, not only over them.³⁶ The ultimate success of indoctrination and propaganda is achieved when individuals self-police their thoughts and align their desires with State ideology. At this point, the *forum internum* ceases to be private, it becomes colonised territory.

This historical context highlights why freedom of thought must be understood as essential to democracy. Filtering the information that enters individuals’ minds to manipulate their opinion is fundamentally opposite to democratic values. There are at least three fundamental democratic problems that arise from the manipulation of thought.³⁷ First, it results in the loss of individual cognitive agency. When people are unable to form their own judgments, they are effectively disenfranchised, not just politically, but epistemically, losing the capacity to recognise or defend their own interests. Second, it allows for the substitution of beliefs, whereby the manipulator's interests are implanted in place of the individual’s own, a particularly dangerous dynamic when the manipulator is a powerful actor like the State. Third, it leads to the erosion of pluralism. As individuals are cognitively nudged toward ideological conformity, the diversity of perspectives necessary for democratic dialogue and deliberation is diminished, weakening the very fabric of a multi-opinion society.

Freedom of thought is thus not only essential, but vital to the foundations of a democratic society.³⁸ Indeed, when freedom of thought is promoted and protected, it enables freedom of expression, which provides the medium for the exchange of free thought. One cannot freely express what one is not free to think. The ability to think for oneself is the condition for exercising freedom of expression. This mutual interrelation can foster a broader dialogue in a

³⁶ Foucault, M. (1982). "The Subject and Power," *Critical Inquiry*, 8(4), 777–795.

³⁷ Christiano (2022)

³⁸ European Court of Human Rights judgment in *Nolan and K. v Russia*, No 2512/04, [2009] ECHR 262 §61.

pluralistic public sphere, where diverging views can be exchanged without fear or coercion, a necessary condition for a society to be labelled as democratic.

Freedom of thought does not only promote freedom of expression, it also enables all external manifestations of thought as it is the basis and origin of all other rights.³⁹ As the inner source of judgment, belief, intention, and will, freedom of thought precedes all action. Whether one chooses to speak, write, assemble, worship, or vote, these acts all originate in the capacity to form independent thoughts. Without freedom of thought, all other rights lose their meaning due to the lack of mental autonomy. Consequently, freedom of thought is the pillar of human rights, the conceptual and functional core upon which all other rights rest.

The Polish philosopher Leszek Kołakowski, a key figure in the intellectual resistance against the Communist regime, wrote extensively on the need for freedom of thought as an intrinsic part of human dignity.⁴⁰ He recognises the individual not just as someone who holds rights, but as a thinking and moral being able to make decisions, challenge existing norms, and form judgments. For Kołakowski, what makes us human is not only our biological existence but our ability to reflect, doubt, and form beliefs independently of imposed ideology. Therefore, to deny someone the right to think is to deny them the status of a human being.

The history of modern democracy illustrates the societal power of emancipated thought. During the Age of Enlightenment, thinkers such as Voltaire, Diderot, and Rousseau defended the autonomy of reason against religious dogma and monarchical authority. Their demand was not only to be able to speak freely but also to think freely, to examine truth for oneself and to question established systems of belief. This intellectual movement instigated revolutions, shaped constitutional democracies, and established the moral authority of the individual as a thinking being. Their legacy reminds us that societies progress when ideas are liberated, not suppressed.

Today, the ability to think without fear of punishment remains a vital engine of progress. Whether in scientific innovation, moral development, or political reform, freedom of thought allows society to test, challenge, and improve its norms. Where it is curtailed, through censorship, surveillance, or manipulation, regression and authoritarianism follow.

³⁹ UNECOSOC, Commission on Human Rights, Third Session, Summary Record of the Sixtieth Meeting (23 June 1948) UN Doc E/CN.4/SR.60, 10.

⁴⁰ White, Martin L. "Leszek Kolakowski". Encyclopedia Britannica, 19 Oct. 2024.

This chapter has examined freedom of thought as a metaphysical concept, tracing its philosophical foundations, its role in sustaining mental autonomy, and its vital function within democratic societies. From its classical formulation as an inviolable inner realm to contemporary insights on mental autonomy and the dangers of manipulation, thinking freely requires both internal self-governance and protection from external interference. Yet, despite its central normative importance, and its fundamental role for democracy, freedom of thought remains underdeveloped and insufficiently protected in legal practice.

3. UNDERSTANDING THE RIGHT TO FREEDOM OF THOUGHT AS A LEGAL CONCEPT

3.1 Legal Recognition and Theoretical Framework

The Universal Declaration of Human Rights from 1948 (UDHR) was crafted in part to ensure that internal violations would never again be permissible under law. After the abominable methods of police enquiry used to control thoughts in the context of World War II,⁴¹ the UDHR was adopted to prohibit intensive manipulations and interventions into other persons' minds which aim at altering thoughts, opinions and ideas. Its Article 18 enshrines the right to "freedom of thought, conscience and religion", establishing a new moral boundary that the forum internum, the internal space of thought, is to be inviolable, even by the State.

The *travaux préparatoires* of the Declaration indicate that freedom of thought extends beyond thought on matters of conscience, religion, and belief, implying that freedom of religion is "only one form of freedom of thought".⁴² The Human Rights Committee further clarifies that freedom of thought extends beyond "religious" thought alone and encompasses thought "on all matters".⁴³ This includes, according to one Committee member, thoughts "considered offensive or illegitimate by authorities or public opinion," leading some scholars to describe freedom of thought as the "right to hold deviant ideas".⁴⁴

Such interpretation of its scope reflects the absoluteness given to the right. Freedom of thought cannot be interfered with in any circumstances. The inner realm must be protected from all attempts to access it. In this matter, the UDHR, as a non-binding declaration, does not provide the material tools to enforce the right. For this reason, the European Convention on Human Rights was adopted in 1950. Article 9 explicitly protects an individual's right to freedom of thought.

Though its initial draft did not specifically mention freedom of thought, references to the right were adopted following Pierre-Henri Teitgen's proposal that the ECHR provision should

⁴¹ Ed Bates, *The Evolution of the European Convention on Human Rights: From Its Inception to the Creation of a Permanent Court of Human Rights* (OUP, 2010) p.5.

⁴² United Nations. (1948). Commission on Human Rights: Summary Record of the 60th meeting (E/CN.4/SR.60), p 12-13.

⁴³ UN Human Rights Committee (HRC), CCPR General Comment No. 22: Article 18 (Freedom of Thought, Conscience or Religion), CCPR/C/21/Rev.1/Add.4, 30 July 1993

⁴⁴ Clay Calvert, *Freedom of Thought, Offensive Fantasies and the Fundamental Human Right to Hold Deviant Ideas: Why the Seventh Circuit Got it Wrong* (2005)

reproduce Article 18 of the UDHR.⁴⁵ Teitgen recommended a collective guarantee not only of freedom to express convictions, but also of thought, conscience, religion and opinion. The Committee wished to protect all nationals of any member State, not only from “confessions” imposed for reasons of State, but also from those abominable “methods of police enquiry or judicial process which rob the suspected or accused person of control of his intellectual faculties and of conscience”.⁴⁶ They aimed to preserve the freedom of individuals to safeguard the free development of their inner thoughts, which may be targeted as part of a wider propaganda machinery in totalitarian States, even without a focus on religion.

Article 9 of the Convention is composed of two paragraphs. The first expresses the general character of the *forum internum*’s absolute protection, affirming that “everyone has the right to freedom of thought, conscience and religion”. The second underlines the potential limitation to the “freedom to manifest one’s religion or beliefs”.⁴⁷ Therefore, the right to freedom of thought benefits from an absolute legal protection to the extent that until thoughts are not manifested, they cannot face any limitation. However, from the moment the external manifestation of thought occurs, that the *forum internum* is externalised, thoughts become actions and can then face legitimate restrictions.

The right to freedom of thought is also protected by the International Covenant on Civil and Political Rights (ICCPR) under similar terms.⁴⁸ Article 4(2) of the Covenant sets out the fundamental character of this right, which is reflected in the fact that this provision cannot be derogated from, even in time of public emergency.

Based on the reading of the provisions, the right to freedom of thought is considered absolute. Discussions concerning limitations always only revolve around the freedom to manifest one’s religion or beliefs, never however, the freedom of thought and conscience. It was agreed that no restrictions of a legal character could be imposed upon a person’s inner thought or moral consciousness, or his attitude towards the universe or its creator.⁴⁹ Only external manifestations of religion or belief could be subject to legitimate limitations.

⁴⁵ Pierre-Henri Teitgen, ‘Establishment of a Collective Guarantee of Essential Freedoms and Fundamental Rights’, Report Doc. 77, 05 September 1949. §6

⁴⁶ European Committee on Human Rights, Preparatory Work on Article 9 of the European Convention on Human Rights, 16 August 1956, DH (56) 14, 3–4

⁴⁷ Council of Europe. (1950). European Convention on Human Rights. European Treaty Series No. 5.

⁴⁸ United Nations. (1966). International Covenant on Civil and Political Rights. Treaty Series, vol. 999, p. 171.

⁴⁹ Janis, M. W., Kay, R. S., & Bradley, A. W. (2021). Right to freedom of thought. In *Judicial Application of Human Rights Law* (2nd ed.). Cambridge University Press.

To guarantee the protection of this right, States who ratified the conventions are subject to specific obligations. Member States have both the positive obligation to protect individuals from the violation of their right to freedom of thought, and negative obligation not to infringe upon the right.

States must protect all those in their jurisdiction from interference with the right. They must take concrete steps to protect their citizens from interference into their mind, especially from the private sector where much of the technology is being developed and used. At the same time, they must refrain themselves from using techniques that interfere with the freedom of thought. This is a triple obligation.⁵⁰ An obligation to respect, to protect and to fulfil. States must respect individual's right by not interfering with or curtailing the enjoyment of it. They must protect individuals and groups against violations to this human right. And they must fulfil positive action to facilitate the enjoyment of this right. Such obligations mean that States cannot avoid their responsibilities. In relation to the right to freedom of thought, it is increasingly incumbent upon States to intervene in important areas of technological and scientific development to establish appropriate forms of protection.⁵¹

However, in the light of the scant legal development of the right (which will be developed later), the understanding of the right and what freedom of thought actually entails has mainly been developed by scholarly literature.

3.2 Core Elements of the Right to Freedom of Thought

Though freedom of thought is recognised by several international human rights instruments,⁵² its core attributes and scope remain unclear. This is complicated by rhetorical inconsistency, where some use “freedom of thought” interchangeably with other rights, and where *forum internum* rights are closely intertwined, such as thought and belief.⁵³

⁵⁰ Alegre, S. (2017). Rethinking freedom of thought for the 21st century. *Eur. Hum. Rights Law Rev.* 3, 221–233.

⁵¹ O’Callaghan P, Shiner B, eds. In: *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025.

⁵² Article 18(1), UDHR; Article 14(1), CRC; Article 1(1), 1981 Declaration; Article 9, European Convention on Human Rights; Article 13, American Convention on Human Rights (“ACHR”); Article 13, ASEAN Human Rights Declaration; Article 30(1), Arab Charter on Human Rights; Article 9(1), African Charter on the Rights and Welfare of the Child

⁵³ Ahmed Shaheed, Interim report of the Special Rapporteur on freedom of religion or belief: Freedom of Thought. A/76/380. United Nations, Geneva (2021).

Freedom of thought as understood by the provision guarantees that one cannot be subjected to treatment intended to change the process of thinking, that any form of compulsion to express thoughts or to change an opinion is prohibited, and that no sanction may be imposed on the holding of a view.⁵⁴

In his report on freedom of thought, religion and belief, the Special Rapporteur came to the same understanding of the elements constituting the right. Based on international human rights jurisprudence and commentary, he mapped four attributes of the right, namely, not being forced to reveal one's thoughts, no punishment and/or sanctions for one's thoughts, no impermissible alteration of one's thoughts, and that States foster an enabling environment for freedom of thought.⁵⁵

3.2.1 The Right Not to Reveal One's Thought

In discussing freedom of thought in General Comment No. 22, the Human Rights Committee asserted that, "in accordance with articles 18(2) and 17 [ICCPR], no one can be compelled to reveal his thoughts"⁵⁶, implying that "mental privacy" is a core attribute of freedom of thought.⁵⁷ Mental privacy refers to the ability to determine for oneself when, how, and to what extent information about one's thoughts is communicated to others.⁵⁸ The right not to reveal one's thoughts against one's will then include the right to remain silent, without having the obligation to explain such silence.

The United States courts recognise that an individual's right to privacy encompasses mental privacy.⁵⁹ In Europe, Article 8 of the ECHR on private and family life protects unwanted intrusions, "be that the head or the home".⁶⁰ However, this raises a normative issue as it is essential to know which ECHR article guarantees mental privacy. If it's the right to freedom of thought (Article 9), then mental privacy is raised as an absolute right, but if it is protected under the right to privacy (Article 8), it is non-absolute and can then face limitations. In this matter, the legal framework of freedom of thought needs to be addressed rapidly.

⁵⁴ B. Vermeulen, "Article 9" in P. van Dijk, F. van Hoof, A. van Rijn and L. Zwaak (eds), *Theory and Practice of the European Convention on Human Rights*, 4th edn (Cambridge: Intersentia Press 2006), p.752.

⁵⁵ Ahmed Shaheed (2021)

⁵⁶ CCPR/C/21/Rev.1/Add.4 paras.1,3.

⁵⁷ Ahmed Shaheed (2021)

⁵⁸ Westin, A. F. (1967). *Privacy and Freedom*. New York, NY: Atheneum.

⁵⁹ *Long Beach City Employees Assn. v. City of Long Beach* (1986); *Stanley v. Georgia* (1969).

⁶⁰ Bublitz, J. C. (2013). "My mind is mine!?: Cognitive liberty as a legal concept," in *Cognitive Enhancement*, eds E. Hildt and A. G. Frakne (Dordrecht: Springer), 233–264.

Nevertheless, mental privacy is fundamentally necessary for mental autonomy. Indeed, if one cannot keep one's thought private, one will experience conformity pressure to think in a specific way. And because this pressure to be in mental conformity will cause self-censorship, it will eventually impair one's mental autonomy. As humans, we make our observable behaviours conform to social norms, our brain has evolved to motivate us to conform. Thus, if our thoughts were made public against our will, we would pressure ourselves to conform them to social norms.⁶¹

This attribute of the right to freedom of thought is of urgent discussion as in today's digital world, where data mining and analysis are constantly growing, it becomes less clear which thoughts we are offering to the outside world and which are being extracted without our knowledge or consent.⁶² The use of data to read and predict characters, thoughts and changing moods is arguably an interference with the right not to reveal one's thought.

3.2.2 The Right Not to be Penalised for One's Thought

Freedom from punishment for one's thoughts, real or inferred, is essential to the right to freedom of thought. States must never punish or sanction people for their mere thoughts, including beliefs, desires, fantasies and unexecuted intentions. Such protection is predicated on the principle that everyone is free to think whatever they wish within their inner mind. Since any limitation on *forum internum* is impermissible, States or non-State actors may violate this attribute when they punish an individual for their thoughts, regardless of whether those thoughts were accurately identified or not.⁶³ It is because the State must not control thoughts that the State must not punish them.⁶⁴

Yet, some argue that it is quite common to punish thoughts.⁶⁵ Crime with *mens rea* involves being punished for an intention, or hate crimes for a specific thought, even attempted crimes which are illegal conducts due to of a certain state of mind. However, in reality individuals are not punished for their mere thought, but rather for the act they committed. Going even further in the penalisation of thought, one United States court banned a known child molester from the city parks for having sexual thoughts while watching kids play, even though he wasn't having

⁶¹ McCarthy-Jones (2019)

⁶² Alegre, S. (2017).

⁶³ Ahmed Shaheed (2021)

⁶⁴ Mendlow, G. S. (2018). Why is it wrong to punish thought. Yale Law J. 127, 2342–2387.

⁶⁵ McCarthy-Jones (2019)

any contact with them.⁶⁶ Even if this could seem like the right decision to make, such jurisprudence appears as a clear violation of this man’s freedom of thought, raising ethical and legal issues around the absolute character of the right.

In this matter, as technological advances increase the possibility of accurately decoding or inferring one’s inner mind, clear parameters and protections for *forum internum* rights need urgent consideration. Indeed, Facebook can now reveal a person’s thoughts through their social media activity, assessing their entire personality, potentially making individuals less desirable on the job market because of certain opinions and thoughts.⁶⁷

Today’s reality is getting closer and closer to George Orwell’s dystopic world, where the thought police would arrest people because they had committed, or would have committed, thoughtcrimes.⁶⁸ The greater access to thoughts through brain and behaviour reading raises the question, notably, if it is legitimate, if thought is known with a degree of certainty, whether to punish it. This interrogation joins another fictive reality, central to the 2002 film ‘Minority Report’, where the ‘Pre-Crime police’ foresee crimes before they happen, apprehending and punishing individuals for acts they only thought about but had not yet committed.⁶⁹

If some thoughts can be dangerous and culpable, there’s a gap States must respect between intent and action. Punishing at the stage of mere intent, in fact diminishes the autonomy of the person by not allowing them to self-govern and restrain themselves from performing the act.⁷⁰

3.2.3 The Right Not to Have One’s Thought Manipulated

In 2009, the Charter of Fundamental Rights of the European Union introduced the concept of ‘right to mental integrity’ in its Article 3(1)⁷¹, without providing a definition, leaving its interpretation to the judges. However, in the absence of legal decisions taken on the matter, scholars define it as “the right to be free from unwanted mental interference or manipulation of a direct and forcible sort”.⁷²

⁶⁶ Doe v. City of Lafayette Indiana. (2001). 160 F. Supp. 2d 996 (N.D. Ind.).

⁶⁷ S. Knapton, “Facebook knows you better than your members of your own family” (12 January 2015), The Telegraph

⁶⁸ George Orwell, 1984, Book 1, Chapter 1

⁶⁹ Spielberg, S. (Director). (2002). Minority Report [Film]. 20th Century Fox; DreamWorks Pictures.

⁷⁰ McCarthy-Jones (2019)

⁷¹ European Union. (2012). Charter of Fundamental Rights of the European Union (2012/C 326/02). Official Journal of the European Union.

⁷² Mendlow, G. S. (2018)

Here lies the core issue in the scope of the right to freedom of thought, as to determine where to draw the line between legitimate influence and unlawful manipulation of one's mind. This is a complex matter to delineate because our thoughts are perpetually influenced by others. As developed in the previous chapter, the mind and its thoughts are constantly built on the surrounding environment, education, everyday interactions. Parents may entice their children to eat healthily, companies can persuade consumers to buy their products through glossy advertising, and policymakers use 'nudges' to influence citizens' behaviour towards desired outcomes. These specific examples may not often evoke human rights concerns, but they nonetheless raise questions about what constitutes mental autonomy, and when thoughts stop being autonomous.⁷³

In its report, the Special Rapporteur on freedom of thought, religion and belief, regrouped the approach scholars proposed to this matter into three categories of impermissible alteration of thought that could violate freedom of thought: coercion, modification and manipulation.

In examining coercion claims, he points out that the Human Rights Committee has considered threats of violence or penal sanction, as well as restrictions on access to education, medical care, employment or participation in public life, constitute coercive acts which contravene to Article 18 ICCPR.⁷⁴ However, since human beings are constantly influenced in their thought by others, the exact point at which persuasion becomes coercion requires a case-by-case assessment, with consideration of context and subject.

Modification of thought, which he defines as the changing of one's thoughts via direct alteration of brain chemistry or brain function, is another example of an attempt to alter an individual's thoughts that may violate Article 18(1) ICCPR when it's not the product of free and informed consent. According to this definition, treatments such as deep brain stimulation, or even consuming psychoactive substances, could be considered as impermissible alteration of one's thought, as they have the ability to modify a person's brain activity and structure of thoughts.

The Special Rapporteur pursues arguing that while modification bypasses psychological processes to directly alter biological function, manipulation engages and controls psychological processes. As developed in the previous chapter, manipulation of thought consists in disabling the attentional and cognitive agency, which is what give us the ability to think rationally.⁷⁵

⁷³ Ahmed Shaheed (2021)

⁷⁴ United Nations Human Rights Committee. General Comment No. 22: The right to freedom of thought, conscience and religion (Art. 18), U.N. Doc. CCPR/C/21/Rev.1/Add.4 (30 July 1993).

⁷⁵ Metzinger (2013)

Manipulation can be achieved by interfering with the process of understanding, to induce a form of cognitive mind control.⁷⁶ A key factor in establishing manipulative control over a person's thoughts is to exploit power asymmetries in accessing information. But just as for coercion, case-by-case assessment is required to characterise whether certain practices impermissibly manipulate one's thoughts or not.

3.2.4 The Right to Have an Enabling Environment for Free Thought

The Special Rapporteur underlines that UN treaty bodies have developed a tripartite understanding of States' responsibilities for human rights, namely, obligations to respect, protect and fulfil rights, entailing both negative duties and positive obligations. Several stakeholders further claim that States have positive obligations towards the right to freedom of thought, including a duty to create an enabling environment for the development of free thought.

A key component of this environment is the freedom to access information and communication. This includes States obligations to ensure access to the Internet and diverse media sources to enable critical thinking, as well as to protect the work of journalists who provide the public with the necessary information to allow them to develop their own thoughts.⁷⁷ Access to information is a prerequisite for freedom of thought, since "every person who is ill-informed cannot think freely".⁷⁸ Therefore, destroying public sources of information including mass media, propaganda and censorship, could undermine the freedom.

The right to education is equally central to cultivating an environment conducive to free thought. As noted by the Committee on the Rights of the Child, and it will be developed later in the thesis, education both draws upon and reinforces freedom of thought, equipping children with the cognitive skills and critical faculties necessary to resist manipulation and make autonomous judgments.⁷⁹

⁷⁶ van Dijk, T. A. (2006). Discourse and manipulation. *Discourse & Society*, 17(3), 359–383.

⁷⁷ UN Human Rights Council, Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, Frank La Rue, A/HRC/20/17, 4 June 2012, para. 3

⁷⁸ van Dijk, T. A. (2006).

⁷⁹ UN Committee on the Rights of the Child, General Comment No. 1: The Aims of Education, CRC/GC/2001/1, 17 April 2001.

Likewise, the right to health, particularly mental health, must be understood as a safeguard for the inner forum. States are obligated to refrain from coercive medical treatments, barring “an exceptional basis” for treating mental illness.⁸⁰

Respecting these core elements and attributes is the key to ensuring that freedom of thought is not an abstract ideal but a lived, protected, and effective human right. However, this is only possible with a clear understanding of the concept of thought itself. Without a coherent interpretation of what the right aims to protect, freedom of thought remains a theoretical and abstract human right.

3.3 The Broad Interpretation of ‘Thought’ in Modern Contexts

International human rights law does not offer a clear or uniform definition of the term “thought”. The *travaux préparatoires* of foundational texts such as the UDHR, ICCPR, and ECHR remain silent on the question. Some scholars interpret this silence as intentional, suggesting that the drafters left the term purposefully vague to accommodate future developments in philosophy, psychology, and neuroscience. As a result, contemporary scholars intensely debate how narrowly to interpret the concept of thought in international human rights law and, therefore, the scope of protection afforded to the right to freedom of thought.⁸¹

The traditional conception of this right relies on the formal distinction between the *forum internum* and the *forum externum*. As previously developed, “thought” exists solely within the private, internal sphere, the *forum internum*, and ends once it is expressed or enacted externally. This perspective has the merit of legal clarity, the *forum internum* enjoys absolute protection, while the *forum externum* may be subject to reasonable limitations. However even if thought occurs only in the *forum internum*, there’s no consensus on what this includes either. Some scholars contend that thought includes one’s mental capacity to reason, while others emphasise that thought encompass all forms of unmanifested mental activity.⁸² In such case, thought includes all kind of mental states, from imagination to reflection, passing through dreams and emotions.⁸³ But it is then unclear what it means in practical terms for the obligation to protect freedom to think.

⁸⁰ UN CESCR (2000). General Comment No. 14, E/C.12/2000/4, para. 34.

⁸¹ Ahmed Shaheed (2021)

⁸² Lucas Swaine, ‘Freedom of Thought as a Basic Liberty’ *Political Theory* 46, no. 3 (2018): 405–425, 411.

⁸³ Alegre, S. (2017)

Increasingly, stakeholders submit that thought is not simply limited to what is inside one's mind but encompasses so-called extended cognition or external thinking.⁸⁴ This theory, introduced in the previous chapter, argues the external environment can be understood as a natural extension of the mind, breaking the traditional distinction of the *forum internum* from the *forum externum*. Certain external tools and environments could play an integral role in the formation, storage, and execution of thought. In such cases, thought is not defined by its origin in the brain but by its function in cognition.

If one adopts this framework, then handwritten notes, internet searches, shopping lists, and even fingers used to count may constitute extensions of the thinking process.⁸⁵ The legal implication is that manipulating these tools or restricting access to them could interfere with an individual's thought itself, not merely its expression. Purposefully blocking access to information sources that a person relies on, filtering search results, distorting facts, or deploying targeted disinformation, would then violate the right to freedom of thought, insofar as it disrupts the cognitive environment necessary for free extended thought.

A vivid illustration of this type of manipulation is shown in the film 'Memento' by Christopher Nolan,⁸⁶ where the main protagonist, due to memory loss, relies on physical cues (notes, tattoos) to make decisions. When others manipulate these cues, they are altering his thought processes directly. This underscores how vulnerable cognition can become when it is distributed across unreliable or manipulable environments.

When disinformation is deployed in a way that undermines an individual's ability to critically reason or trust their cognitive environment, it becomes a violation of one's right to freedom of thought. In her 2021 report, the Special Rapporteur on freedom of opinion and expression emphasised that aspects of the digital environment, including online searches and viewing content, constitute expressions of private thought.⁸⁷

⁸⁴ Bublitz (2014)

⁸⁵ McCarthy-Jones (2019)

⁸⁶ A. Clark, 'Memento's Revenge: The Extended Mind, Extended' in R. Menary (ed.), *The Extended Mind* (MIT Press, 2010) pp. 43–66.

⁸⁷ United Nations Human Rights Council. (2021). *Disinformation and freedom of opinion and expression: Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, Irene Khan (A/HRC/47/25)*.

Supporting extended thought theories, studies indicate that some people, including persons experiencing dementia, use social media or smartphones as an external substitute for memory, and not necessarily as a tool for sharing or expressing thoughts.⁸⁸

However, extending the absolute protection of freedom of thought to certain forms of expression raises complications in various scenarios, including within the justice system. For instance, if we accept that internet searches represent thoughts, it will certainly lead to self-censorship as a result of violation of mental privacy. In the case where google search history is used as evidence in court, if one's thoughts were made public against one's will, individuals would pressure themselves to conform their thoughts to social norms.⁸⁹ Such self-censorship would undoubtedly harm mental autonomy, breaching the right to freedom of thought.

Having a clear understanding of what the concept of thought entails is vital to frame the scope of the right to freedom of thought. If thought is interpreted narrowly, confined to the *forum internum*, then the right will cover fewer situations, leading to a smaller protection range. This avoids legal overreach and preserves the absoluteness of protection, but at the cost of neglecting the cognitive realities of modern life. By contrast, if the interpretation of thought is broadened, including extended thought, thus recognising that thinking today often involves interactions with digital tools, external memory, and shared environments, the margin of protection of the right to freedom of thought will be much wider. This aligns with the theory of “functionalism” in philosophy of mind,⁹⁰ which defines thoughts in terms of what they do rather than what they are made of. According to this model, what matters is not whether a process is in the head but whether it plays a role in cognition.

However, allowing that thought can occur in the *forum externum* causes a dilemma for the absolute nature of the right. While thought in the *forum internum* is given absolute protection because it cannot directly harm other, thought in the *forum externum* can directly impact others, thus potentially causing harm. For instance, internet searches that result in hate content may reinforce biases, while AI-curated informational bubbles can skew deliberative democracy. Restricting the scope of the right solely to happenings in the *forum internum*, to unmanifested thoughts, would avoid these legal problems. But this means denying the natural extension one's

⁸⁸ CARTER JA, PALERMOS SO. Is Having Your Computer Compromised a Personal Assault? The Ethics of Extended Cognition. *Journal of the American Philosophical Association*, 2016

⁸⁹ McCarthy-Jones (2019)

⁹⁰ N. Block, 'What is Functionalism', in N. Block (ed.), *Readings in the Philosophy of Psychology*. Vol I. (MIT Press, 1980) pp. 171–184

mind can benefit from once it encounters the external environment, as well as the influence physical objects can have on one's thoughts.

As a potential resolution to this dilemma, Simon McCarthy-Jones argues for a dual model of the right to freedom of thought,⁹¹ one that protects simultaneously the internal (attentional and cognitive agency), and the external actions constitutive of thought, such as internet searches, reading, writing. This model accepts that external thinking is essential to modern reasoning and must be shielded from unlawful manipulation. Rather than relegating these processes to data privacy regimes, the law should recognise their role in constituting thought itself.

Ultimately, the way thought is legally defined determines the scope and strength of the right to freedom of thought. If thought is narrowly construed, the right protects only internal privacy and autonomy. If thought is defined functionally, to include extended cognition, then the right becomes more robust and adaptive, capable of responding to the complexities of the digital age. If the absolute protection given to the *forum internum* is based on the importance of truth-seeking and the promotion of autonomous self-governed people, then such justification can be extended to *forum externum* thought, as it has the capacity to improve second order thought, the ability to reason. As technology continues to evolve, the challenge for law is not to resist this expansion, but to anchor its protections in the reality of how thinking occurs today and to keep up with the pace of an ever and rapidly evolving technological environment.

3.4 The Legal Marginalisation of the Right to Freedom of Thought

Despite its foundational presence in international human rights instruments, the right to freedom of thought remains one of the most underdeveloped and under-enforced rights in contemporary legal practice. Though enshrined in major human rights treaties such as the UDHR (Article 18), ICCPR (Article 18), and ECHR (Article 9), its legal contours are vague, its jurisprudential treatment minimal, and its practical application virtually absent.

The jurisprudential silence surrounding freedom of thought is striking. In over 50 years of existence the ECtHR has only decided a handful of cases regarding this right, it is an almost empty declaration. There are no definitions over its meaning, scope or possible violations.⁹²

⁹¹ McCarthy-Jones (2019)

⁹² Bublitz, J. C. (2011). "If man's true palace is his mind, what is its adequate protection? On a right to mental self-determination and limits of interventions into other minds," in *Technologies on the Stand: Legal and Ethical Questions in Neuroscience and Robotics*, eds B. van den Berg and L. Klaming (Nijmegen: Wolf Legal Publishers).

There is no adequate material in the preparatory works of the drafters of the ECHR regarding the concept of thought.⁹³ Among the Council of Europe's forty-nine member States, only eighteen mention freedom of thought in their constitutions, underlining the little interest in the right.⁹⁴ It might be the only human right without any practical application nor much legal writing, even the explanatory guide to Article 9 ECHR remains silent on the subject. The Special Rapporteur has described the right as having received “scant attention” in global jurisprudence, legislation, and legal scholarship.⁹⁵

Several factors contribute to the marginalisation of freedom of thought in practice.⁹⁶ First, the absence of a clear legal definition of “thought” generates uncertainty about the substantive content of the right, making it difficult to determine what precisely is protected. A telling example can be found in a case before the European Commission of Human Rights, which acknowledged that naming one’s child could be interpreted as a “thought” under Article 9.⁹⁷ Yet, this cautious and partial recognition underscores the uncertainty surrounding the scope of the right, what it protects and how it applies. Second, there is ambiguity surrounding the contexts in which the right might apply, particularly in distinguishing between internal cognitive processes and their external manifestations.⁹⁸ Third, the idea of thought as purely internal, confined to the *forum internum*, makes courts hesitant to intervene, assuming that the inner realm is naturally immune to interference.⁹⁹

Furthermore, there is a tendency to subsume freedom of thought under its “sister rights”,¹⁰⁰ deemed as more actionable rights. In cases where claimants invoke freedom of thought, courts often reframe the issue in terms of freedom of religion, expression, or privacy. For instance, in a school-based case involving religious indoctrination, atheist parents alleged a violation of their child’s right to freedom of thought, for not being exempt from religious instruction at school. However, the European Commission, argued that “compulsory school attendance may

⁹³ Loucaides, L. G. (2012). The right to freedom of thought as protected by the European Convention on Human Rights. *Cyprus Hum. Rights Law Rev.* 1.

⁹⁴ Benziger F. The Right to Freedom of Thought under the European Convention on Human Rights. In: O’Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025.

⁹⁵ Ahmed Shaheed (2021).

⁹⁶ Benziger F. (2025).

⁹⁷ *Salonen v. Finland*, App. No. 27868/95, Decision of the European Commission of Human Rights, 2 July 1997.

⁹⁸ Schabas, W. A. (2015). *The European Convention on Human Rights: A commentary* (p. 420). Oxford University Press.

⁹⁹ Nowak, M. (2005). *U.N. Covenant on Civil and Political Rights: CCPR Commentary* (2nd ed., p. 412). N.P. Engel.

¹⁰⁰ Benziger F. (2025).

come into conflict with a family’s religious beliefs”.¹⁰¹ In another case, parents complained about a violation of their rights protected by the Article 9(1) of the Convention, including freedom of thought, because they considered their daughter’s school’s approach to sex education to be contrary to their religious beliefs.¹⁰² In these cases, the Court’s reasoning typically focuses on the right to freedom of religion or belief, bypassing the thought component entirely. Therefore, when freedom of thought is invoked with another right, the Court always focuses on the other right the application is based on, avoiding engaging with the fundamental human right.

This pattern of judicial avoidance raises a crucial doctrinal question, whether the right to freedom of thought holds any independent legal value, or if it is to be interpreted as an ancillary right.¹⁰³ In legal theory, rights can function either as independent or as ancillary provisions that support the enforcement of other primary rights. Applying this principle to the right to freedom of thought would mean that it depends on the fulfilment of requirements of other rights, such as the right to freedom of expression, before it can come into play. Conversely, if the right has independent value, it raises the question of knowing if that value is symbolic or rather of practical significance. This is essential to clarify as “the Convention is designed to guarantee not rights that are theoretical or illusory but rights that are practical and effective”.¹⁰⁴

Article 9(1) ECHR appears to support the independent status of the right. Its wording explicitly separates freedom of thought from freedom of conscience and religion. The drafters of the Convention followed the example of the UDHR in granting freedom of thought a distinct place in the legal framework of human rights.¹⁰⁵ This distinction was not accidental, it was meant to protect all forms of internal cognitive activity, including those not tied to religious beliefs. For the Convention’s drafters, the right to freedom of thought is the requirement for individuals to enjoy all other related freedoms that flow from a person’s inner thought process.¹⁰⁶

Yet, the practical application of the right, or rather the lack thereof, points in the opposite direction. In practice, the Court has never fully embraced its independent value. When freedom of thought is invoked in conjunction with another right, the Court constantly defaults to the

¹⁰¹ *Angeleni v. Sweden* [1986] ECmHR 10491/83.

¹⁰² *Kjeldsen, Busk Madsen and Petersen v. Denmark* [1976] ECtHR 5095/71.

¹⁰³ Benziger F. (2025).

¹⁰⁴ *Airey v. Ireland* [1979] ECtHR 6289/73 paragraph 24.

¹⁰⁵ European Committee on Human Rights, Preparatory Work on Article 9 of the European Convention on Human Rights, 16 August 1956, DH (56)

¹⁰⁶ Benziger F. (2025).

latter, avoiding the interpretive challenges posed by the former.¹⁰⁷ This reliance on “sister rights” has stunted the evolution of a clear legal doctrine around freedom of thought itself. Claims under the right to freedom of thought are almost always framed in relation to external situations, meaning that even minimal engagement with the *forum externum* tends to shift the legal analysis to a different, more actionable right. As a result, the right is rarely, if ever, addressed in isolation as a matter of pure *forum internum*, reinforcing its marginal status in human rights litigation.

The failure to treat freedom of thought as a practical, enforceable right risks reducing it to a symbolic declaration, a theoretical ideal with little operational meaning. Yet this was not the intention of its inclusion in legal instruments. On the contrary, freedom of thought was meant to be a safeguard against totalitarianism, protecting the individual’s mental self from ideological intrusion.¹⁰⁸ It was never intended to be ancillary. Its original purpose was to guarantee that every person would retain an inviolable mental space from which their thoughts and opinions could emerge freely.¹⁰⁹

Thus, despite its fundamental place in human rights discourse, in democracy and democratic education, the right to freedom of thought remains under-litigated and under-theorised in comparison with other rights, such as religion, expression, or privacy, even if these rights are all related to freedom of thought in that they represent the external manifestations of thought.¹¹⁰ In this sense, freedom of thought is best understood as fertile soil from which related rights obtain their foundation.¹¹¹

For instance, the scope and content of the right to freedom of thought are often understood as an essential aspect of a person’s inner private life, intertwined with article 8 which also protects an individual’s psychological and moral integrity.¹¹² Similarly, speech and thought are intimately linked, even sometimes conceived as the same.¹¹³ This is because freedom of speech follows free thought, and that freedom of expression is necessary to fully realise freedom of thought in the sense that it provides the medium for the exchange of free thoughts. Therefore, the manifestation of thought through communication is protected by freedom of speech. This

¹⁰⁷ Benziger F. (2025).

¹⁰⁸ Ed Bates, *The Evolution of the European Convention on Human Rights: From Its Inception to the Creation of a Permanent Court of Human Rights* (OUP, 2010).

¹⁰⁹ Clay Calvert, *Freedom of Thought, Offensive Fantasies and the Fundamental Human Right to Hold Deviant Ideas: Why the Seventh Circuit Got it Wrong* (2005)

¹¹⁰ Alegre, S. (2017).

¹¹¹ Benziger F. (2025).

¹¹² *X and Y v. The Netherlands* [1985] ECtHR 8978/80 paragraph 22.

¹¹³ Mill, J. S. (1859). *On liberty*. London: John W. Parker and Son.

interrelation is reflected in human rights law, explaining why sometimes freedom of thought is understood to entail the freedom to “hold opinions without interference”.¹¹⁴ However, the failure to keep the inner side and its manifestation apart, in fact partly accounts for the lack of interest in the right to freedom of thought.

Although jurisprudence has been hesitant to affirm the right to freedom of thought in its own terms, there are legal and conceptual grounds to treat it as independently valuable. Evidence from drafting history, the structure of Article 9, and related rights in the UDHR and ICCPR all suggest that the right was intended to protect the mind as such, not merely in relation to expression or religion.¹¹⁵ While its application may overlap with other rights, it can and should stand on its own when what is at stake is the autonomy of the mind itself.

Recognising the independent function of the right is essential in light of emerging challenges, ranging from neurotechnology and behavioural profiling to algorithmic manipulation. These are not simply threats to expression or privacy, they are direct interferences with the conditions of autonomous thought. If the human rights framework is to remain responsive to these realities, freedom of thought must be more than a theoretical placeholder, it must be a functional, enforceable right.

¹¹⁴ Bublitz (2014)

¹¹⁵ Clay Calvert, *Freedom of Thought, Offensive Fantasies and the Fundamental Human Right to Hold Deviant Ideas: Why the Seventh Circuit Got it Wrong* (2005)

4. UNDERSTANDING THE PROCESS OF THOUGHT MANIPULATION

4.1 Mechanisms and Tools of Erosion

The absolute nature of freedom of thought, coupled with what some argue is a narrow scope of protection, has made it difficult to envisage just how and when this right may be violated, thereby undermining its practical application. This section explores views offered from diverse stakeholders regarding potential violations of the right to freedom of thought in the digital era.

Simon McCarthy-Jones explains how technological tools are being used to access the mind and decode its inner monologue, through two types of techniques, behaviour reading and brain reading.¹¹⁶ The former analyses individual's online data in order to influence their behaviour by manipulating their thoughts, whereas the latter relies directly on neurotechnology's ability to decode people's brain activity.

4.1.1 Behaviour-Reading

In the digital age, "humans bleed data".¹¹⁷ McCarthy-Jones observes that every online action, from search queries to social media engagement, leaves a digital trace behind. These footprints are collected, stored, and analysed using advanced machine learning algorithms to infer individuals' unobservable inner worlds. Two different techniques can be used to change thought and influence decision-making through powerful algorithms.¹¹⁸

First, 'hypernudging' which is a form of nudging that continuously reconfigures prompting based on data that an algorithm is getting from individuals and changes the type of nudge depending on the information and the algorithm in play.¹¹⁹ One example is recommender systems such as navigation algorithms (like Google maps) which continually adjust with updated information on the individual being nudged.

Secondly, and most crucially here, 'microtargeting', which is the use of, often large volumes of, personal data gathered from digital footprints that tailor what individuals or small groups

¹¹⁶ McCarthy-Jones (2019)

¹¹⁷ Ibid

¹¹⁸ Thomas Christiano (2022)

¹¹⁹ Yeung, Karen. (2016). 'Hypernudge': Big Data as a mode of regulation by design. *Information, Communication & Society*. 20. 1-19. 10.1080/1369118X.2016.1186713.

see online. This involves using algorithms to target messages to specific groups of people who are more likely to be moved by certain types of messages based on the data collected on what they and others (similar to them) are generally moved by.¹²⁰ Microtargeting is used to shape the development of opinion, often being highly emotional and involving misinformation.

While traditional advertising is mainly informative, modern advertising draws on techniques such as micro-targeting and advances in behavioural science to examine links between emotional responses and decision-making and play on our subconscious desires.¹²¹

One study of 3.7 million people suggests that targeting individuals with “psychologically tailored advertising” could significantly alter their decision-making compared to traditional advertising and covertly exploit data to persuade them to take action against their own best interests.¹²² The Special Rapporteur on freedom of thought joins the Special Rapporteur in the field of cultural rights in emphasising that such power “to influence individual choices,” including through the targeted and tailored repetition of the same message across multiple media platforms, raises serious concerns for freedom of thought.¹²³

But for such interventions to be considered as interfering disproportionality with a consumer’s right to remain free from manipulation depends on the efficacy of specific means. Advertisement is not mind-control, but an attempt to subtly change thoughts and desires by bypassing rational self-control. At the end of the day, individuals remain in possession of their ability to make rational decisions. However, there is no doubt regarding the fact that those interventions exploit individual’s mental vulnerability to influence their decision-making, thus potentially violating the absolute right to freedom of thought.

Today, this concern about illegitimate influence on one’s mind is of vivid concern as regards social media. Through social media, individuals receive a tailor-made reality, a timeline, content, view, an ‘echo chamber’ created just for them. And every time we interact, we teach the machine to understand our thoughts more completely than we understand them ourselves. In 2012, Facebook published the results of a study that showed it could alter the emotional state

¹²⁰ Benkler, Yochai & Faris, Robert & Roberts, Hal. (2018). *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*.

¹²¹ Ahmed Shaheed (2021).

¹²² S.C. Matz, M. Kosinski, G. Nave, & D.J. Stillwell, *Psychological targeting as an effective approach to digital mass persuasion* (2017)

¹²³ United Nations General Assembly. (2014). *Report of the Special Rapporteur in the field of cultural rights* (A/69/286).

of its users by manipulating their news feeds.¹²⁴ Those who were shown more negative content posted more negative content and vice versa. Therefore, influencing content individuals see can influence their emotions and manipulate their mental state. Furthermore, this experiment took place without informed consent of the users,¹²⁵ undermining their right not to have their thoughts manipulated. This illustrates the urgent need to draw a line between legitimate persuasion and unlawful manipulation of the mind.

Similarly, in 2015, a Cambridge University study showed that psychological profiling based on Facebook likes allowed researchers more insight into a user's personality than their close friends and family.¹²⁶ The researchers observed that the results of such data analysis could help recruiters when choosing a candidate for a job, based on their personality and behaviour.¹²⁷ While one may be happy to let people know what post they liked, one may not be so comfortable with the fact that this information can be analysed to reveal profound psychological traits and the inner workings of people's minds. Such assessment of someone's personality could lead them to be less desirable on the job market because of their opinions and thoughts, thus impairing their right not to be penalised for one's thoughts.¹²⁸

With increasing data mining and analysis happening, it is becoming less clear which thoughts individuals are willing to share and which are being extracted without their knowledge or understanding.¹²⁹ For example, devices that record health data (such as iPhones or fit-bits) provide information that can be analysed to give a picture of emotional states or to predict psychotic episodes,¹³⁰ leading to a violation of the right not to reveal one's thoughts or opinions.

The use of data to read and predict our characters, thoughts and changing moods is arguably an interference with the three key elements of the right to freedom of thought.¹³¹ And since any interference or limitation with one's mind is considered unlawful given the absoluteness of the right, such situation should be understood as a potential violation of the right to freedom of thought.

¹²⁴ A.D.I. Kramer, J.E. Guillory and J.T. Hancock "Experimental Evidence of Massive Scale Emotional Contagion through Social Networks".

¹²⁵ PNAS Editorial Expression of Concern and Correction, 22 July 2014

¹²⁶ S. Knapton, "Facebook knows you better than your members of your own family" (12 January 2015), The Telegraph

¹²⁷ Ibid

¹²⁸ Ibid

¹²⁹ Alegre, S. (2017).

¹³⁰ E. Eisner, "A 'smart' way to spot schizophrenia signs" (31 October 2015) BBC News

¹³¹ B. Vermeulen (2006), p.752.

4.1.2 Brain-Reading

While behaviour-reading manipulates the mind by analysing external actions, brain-reading aims to directly decode thoughts from people's brain activity. At the heart of this method are neurotechnologies, defined as “devices and procedures used to access, monitor, investigate, assess, manipulate and/or emulate the structure and function of the neural systems of natural persons”.¹³² These tools establish a direct connection between the brain and external devices, opening unprecedented possibilities to access, decode and potentially manipulate human thought.¹³³

The research and development of these emerging technologies is being promoted on the basis of their immense potential for good.¹³⁴ Brain-computer interface (BCI) technologies already support the development of motor prosthetics,¹³⁵ speech devices,¹³⁶ and neurostimulation therapies for neurological and psychiatric conditions such as Parkinson's disease¹³⁷ or obsessive-compulsive disorder.¹³⁸ Such technologies enable people with disabilities to regain functions previously considered irreversibly lost.

However, while neurotechnology advances hold tremendous promise for treating certain medical conditions, many are concerned about the use of neurotechnology to violate mental privacy.¹³⁹ These concerns are primarily rooted in the ability of neurotechnology to access people's mental states, and to influence mental processes in an unprecedented way.

In this context, the philosophical concept of ‘pharmakon’, a term that means both remedy and poison, proves instructive.¹⁴⁰ Neurotechnologies, while posing risks to cognitive freedom, also present opportunities to enhance it, depending on how they are developed, deployed, and regulated.

¹³² Nita Farahany, *The Battle for Your Brain*, 2023

¹³³ O. Müller, S. Rotter, ‘Neurotechnology: “Current Developments and Ethical Issues” (2017) 11 *Frontiers in Systems Neuroscience* 93.

¹³⁴ Report on twenty-eighth session, 2022, UN DOC A/HRC/AC/28/2, Annex 3.II, (HRC Advisory Committee Report)

¹³⁵ H. Lorach et al., ‘Walking Naturally after Spinal Cord Injury using a Brain–spine Interface’ (2023) 618 *Nature*, 126–133.

¹³⁶ F.R. Willett et al., ‘A High-performance Speech Neuroprosthesis’ (2023) 620 *Nature* 1037–1046

¹³⁷ F.M. Weaver et al., ‘Bilateral Deep Brain Stimulation vs Best Medical Therapy for Patients with Advanced Parkinson Disease: A Randomized Controlled Trial’ (2009) 301 *JAMA*, 63–73.

¹³⁸ V. Visser-Vandewalle et al., ‘Deep Brain Stimulation for Obsessive–compulsive Disorder: A Crisis of Access’ (2022) 28 *Nature Medicine* 1529–1532.

¹³⁹ Ienca, M., & Andorno, R. (2018). Towards new human rights in the age of neuroscience and neurotechnology. *Frontiers in Neuroscience*, 12, Article 82.

¹⁴⁰ HandWiki. (2022, November 07). Pharmakon. In *Encyclopedia*.

Modern neuroimaging technologies such as functional magnetic resonance imaging (fMRI) allow researchers to infer mental states from physiological activity in the brain.¹⁴¹ Studies have demonstrated the capacity to reconstruct visual experiences, predict a person's actions before they occur, and even identify suicidal ideation with reportedly high accuracy (one recent study reporting up to 91% accuracy in identifying suicidal thoughts¹⁴²). These developments remain largely experimental, but the trajectory is clear, neuroscience is approaching a point where it will be able to decode mental states and thoughts, interfering with individual's right not to reveal one's thoughts or opinions.

The potential misuse of such technologies is not merely speculative. In a controversial Indian case, neuroimaging was admitted as evidence to determine the veracity of a defendant's memories of the crime, ultimately contributing to a life sentence for the poisoning of her fiancé.¹⁴³ Even if neuroimaging produces mathematical abstractions rather than literal mind-reading¹⁴⁴, its use in legal settings, particularly without consent, constitutes a grave intrusion into the *forum internum*.

Beyond observation lies direct intervention such as Deep Brain Stimulation (DBS), which involves implanting electrodes to target specific brain regions. DBS has demonstrated the power to modify emotional and cognitive states, even altering aspects of personality.¹⁴⁵ Similarly, Transcranial Magnetic Stimulation (TMS) can stimulate brain areas non-invasively. Magnetic stimulation of the brain may alter moral reasoning,¹⁴⁶ while electrical stimulation is touted as a possible treatment for depression.¹⁴⁷ Scientists were for example able to alter moral judgments by targeting specific brain areas with TMS,¹⁴⁸ raising concerns about the ability to externally engineer ethical or behavioural responses.

The ethical implications are profound. When such interventions occur without consent, especially in institutional or carceral contexts, they amount to a violation of freedom of thought,

¹⁴¹ Bublitz, (2014).

¹⁴² National Institutes of Health. (2018, November 6). Machine learning identifies suicidal youth.

¹⁴³ Sessions Court, State of Maharashtra. (2008). Sessions Case No. 508/07 [Court ruling].

¹⁴⁴ Lighthart, S., Douglas, T., Bublitz, C. et al. Forensic Brain-Reading and Mental Privacy in European Human Rights Law: Foundations and Challenges. *Neuroethics* 14, 191–203 (2021).

¹⁴⁵ Thomas Schlaepfer et al. Deep Deep Brain Stimulation to Reward Circuitry Alleviates Anhedonia in Refractory Major Depression, *Neuropsychopharmacology* 2008, 368.

¹⁴⁶ L. Young, J.A. Camprodon, M. Hauser, A. Pascual-Leone, & R. Saxe, Disruption of the right temporoparietal junction with transcranial magnetic stimulation reduces the role of beliefs in moral judgments (2010)

¹⁴⁷ Thomas E. Schlaepfer, Bettina H. Bewernick, Sarah Kayser, Burkhard Mädler, Volker A. Coenen, Rapid Effects of Deep Brain Stimulation for Treatment-Resistant Major Depression, *Biological Psychiatry*, Volume 73, Issue 12, 2013, Pages 1204-1212.

¹⁴⁸ L. Young, J.A. Camprodon, M. Hauser, A. Pascual-Leone, & R. Saxe (2010)

stripping individuals of mental autonomy and manipulating their internal processes. These devices thus hold the potential to actively interfere with what goes on in people's mental realm.

The legacy of coercive psychiatric treatment presents another layer of complexity. Since the pharmacological revolution of the mid-20th century, psychiatry has employed chemical means, sometimes without consent, to change patients' minds. Lobotomies, forced medication, and shock therapy, often justified on therapeutic grounds, have all been used to coercively alter the thoughts of individuals, forcibly revealing thoughts or even physically modifying brains.¹⁴⁹

While mental health care remains necessary, especially in addressing delusions or severe mental illness, for "restoring" one's freedom of thought,¹⁵⁰ interventions must respect individual's autonomy. The Human Rights Committee affirmed that such treatment should only occur as a last resort, for the shortest possible time, and with sufficient procedural safeguards.¹⁵¹ Otherwise, these measures risk breaching the very rights they aim to preserve.

Even modern therapeutic techniques raise concerns. Some practices may coercively reveal, alter, or suppress thoughts beyond therapeutic aims. In such cases, the line between mental health support and cognitive manipulation becomes dangerously blurred.

The final frontier lies in neuroenhancement, the use of technologies to augment cognitive capacities such as memory, attention, or willpower. This practice raises the question of knowing if the right to freedom of thought includes the right to change one's own mind. Commercial neuroenhancement is growing rapidly, companies like Neuralink, owned by Elon Musk, are already developing wireless implantable chips to connect human minds to computers, creating "superhuman" cognition by empowering humans with AI.¹⁵² Invasive BCIs have also allowed paralysed individuals to communicate through brain implants that translate thought into speech.¹⁵³

However, this promising technology also raises socio-ethical concerns. As neuroenhancers become widespread, social pressure may compel individuals to use them in order to remain competitive, especially in the job market. Here, the freedom to augment one's own mind may

¹⁴⁹ In a recent decision, the German Constitutional Court explicitly acknowledged that interventions aim to change thinking patterns of patients. BVerfG, 2 BvR 882/09 Jud 23 March 2011 para 44.

¹⁵⁰ United Nations Human Rights Council. (2017). Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (A/HRC/35/21).

¹⁵¹ United Nations Human Rights Committee. (2014). General Comment No. 35: Article 9 (Liberty and security of person) (CCPR/C/GC/35).

¹⁵² Debbie White, 'Elon Musk's Neuralink prepares to test microchips in human brains', The Times, 21 January 2022

¹⁵³ Larry Hardesty, 'Computer system transcribes words users "speak silently"', MIT News, 4 April 2018,

interfere with another's right to refuse such augmentation. Such scenario introduces a new kind of conflict, one where what is at stake is the constitutions of minds competing in a mental economy.¹⁵⁴

Companies like SmartCap already monitor employee brainwaves to track fatigue or productivity. While ostensibly improving safety, these devices also generate continuous cognitive surveillance, allowing employers unprecedented insight into workers' mental states. As Nita Farahany warns, this form of monitoring risks reducing human thought to a performance metric, transforming the workplace into a site of mental control.¹⁵⁵

Therefore, it is necessary to strike a balance between safeguarding individuals from coercive mind-altering tools and respecting their autonomy to modify their own thinking processes. If freedom of thought means the right to think as one chooses, it must also include the freedom to use tools or techniques that assist in reshaping one's own thoughts. Consequently, a blanket prohibition on such tools could infringe upon the very freedom to change an individual's mind.

Both behavioural reading and brain-reading techniques require more rigorous study and clearer legal and ethical frameworks to prevent their misuse in ways that could circumvent the permissible boundaries of interference with freedom of thought, thereby infringing upon this fundamental right. However, it is important to recognise that these tools do not operate in isolation, they are always wielded by actors who intentionally seek to influence and manipulate individuals' minds.

4.2 The Actors Behind Thought Manipulation

The manipulation of thought is a deliberate, orchestrated practice carried out by both private and public actors, often wielding considerable technological and psychological resources. The modern digital landscape enables these actors to access, influence and at times override cognitive processes, thus threatening the integrity of the right to freedom of thought.

¹⁵⁴ Bublitz (2014)

¹⁵⁵ Weller, C. (2016, October 18). Wearable devices at work allow your boss to monitor your brain. World Economic Forum.

4.2.1 Private Actors

As U.S. Supreme Court Justice Anthony Kennedy once observed, “Minds are not changed in streets and parks as they once were. To an increasing degree, the more significant interchanges of ideas and shaping of public consciousness occur in mass and electronic media.”¹⁵⁶ In today’s digital era, private entities, particularly major technology companies, play an outsized role in shaping human thought.

Platforms such as Google, Meta, X (formerly Twitter), TikTok, and YouTube operate not as neutral infrastructures but as true gatekeepers of information. They rank, prioritise, and filter content based on algorithms trained to maximise engagement and profit. As such, they do not only distribute information, they allegedly distort information environments in ways that can manipulate thought.¹⁵⁷

The UN Special Rapporteur on freedom of religion or belief cautioned that content curation, targeted advertising, and personalised newsfeeds could interfere with intellectual freedom and critical thinking by minimising exposure to diverse views and confining individuals within algorithmically determined “echo chambers”.¹⁵⁸ These platforms act as invisible editors, and their operations lack transparency or accountability regarding what users see and why.

Moreover, many companies’ privacy policies explicitly reserve the right to share or sell user data with third parties, making them complicit in a larger data economy that treats mental and emotional profiles as market commodities.¹⁵⁹ In the words of Nita Farahany, companies increasingly approach the brain to exploit it rather than to enable and empower individuals.¹⁶⁰

Marketing strategies today are no longer aimed solely at conscious persuasion but increasingly seek to bypass rational deliberation altogether. This is particularly visible in neuromarketing, where firms use technologies such as fMRI to monitor and interpret emotional and cognitive reactions to advertisements. At MindSign Neuromarketing, for instance, researchers monitor real-time brain responses to assess whether users were “happy or sad, scared or sleepy” while watching an ad, often before the user themselves could articulate any response.¹⁶¹

¹⁵⁶ Denver Area Educational Telecommunications Consortium, Inc. v. Federal Communications Commission. (1996).

¹⁵⁷ R. Epstein, & R.E. Robertson, The search engine manipulation effect (SEME) and its possible impact on the outcomes of elections, (2015).

¹⁵⁸ Ahmed Shaheed (2021).

¹⁵⁹ Istace T, Van de Heyning C. (2025)

¹⁶⁰ Farahany (2023)

¹⁶¹ Lindstrom, M. (n.d.). MindSign Neuromarketing: Making ads that read your mind. Neuroscience Marketing.

John Bargh, a professor of psychology at New York University, warns that “methods to thwart or bypass the consumer’s defences against influence are becoming ever more powerful,” while consumers remain unaware of the extent to which their preferences are being manipulated.¹⁶²

The boundary between information and manipulation is especially thin in advertising, where falsehoods are rarely necessary.¹⁶³ As noted, consumers are not necessarily lied to, they are seduced, via appeals to unconscious emotional drives. In this environment, consent becomes meaningless. Terms and conditions are opaque, and users cannot foresee how their data will be used or infer the extent to which their thoughts are being shaped by unseen algorithms.

4.2.2 Public Actors

Governments have long understood that controlling the mind is a form of political power. In the digital age, State actors have moved from overt censorship to subtle surveillance and behavioural influence, often under the guise of national security, public health, or administrative efficiency.¹⁶⁴ Public institutions increasingly exploit the same technologies as private firms, but with different, often more coercive, goals.

In democratic societies, governments use behavioural science to nudge citizens towards socially desirable outcomes.¹⁶⁵ These nudges, rooted in libertarian paternalism, preserve the individual’s right to choose, while subtly steering them through design, defaults, or framing.

However, nudging is not always wrongful manipulation. It only becomes problematic when transparency is absent, or when the nudge serves the State’s strategic interests rather than the citizen’s well-being.¹⁶⁶ Where such interventions exploit cognitive limitations, especially in politically sensitive areas like voting or public discourse, they may amount to manipulation rather than guidance.

In authoritarian regimes, thought manipulation has evolved into a powerful tool of control, extending far beyond traditional forms of censorship. Governments such as China have leveraged advanced technologies, biometrics, digital surveillance, and personal data collection,

¹⁶² John Bargh, *Losing Consciousness: Automatic Influences on Consumer Judgment, Behavior, and Motivation*, *Journal of Consumer Research* 2002, 280

¹⁶³ François G  r  , *Dictionnaire de la d  sinformation*, Armand Colin, 2011.

¹⁶⁴ Freedom House, *Freedom on the Net 2017: Manipulating Social Media to Undermine Democracy*, November 2017.

¹⁶⁵ Thaler, R., and Sunstein, C. (2008). *Nudge. Improving Decisions About Health, Wealth and Happiness*. New Haven, CN: Yale University Press.

¹⁶⁶ Thomas Christiano (2022)

to perform behavioural analysis aimed at detecting so-called “extremist” or “unhealthy” thoughts before they are even expressed.¹⁶⁷ Initially focused on content censorship and access restrictions, these regimes now exploit the full potential of the internet to manipulate information flows and to control what their citizens think, shaping public consciousness and ideological conformity to consolidate their power.¹⁶⁸

The UN Special Rapporteur on freedom of religion or belief has noted that surveillance practices aimed at identifying “extremist thinking” risk violating the right to freedom of thought, especially when thought is sanctioned before any harmful action has occurred.¹⁶⁹ These practices are increasingly prevalent in counter-terrorism regimes, which justify pre-emptive detention or sanction based on inferred mental states.

Beyond legality, research suggests that individuals modify their behaviour when they know that they are subject to surveillance, including through self-censorship.¹⁷⁰ When surveillance thoroughly infiltrates rights-holder’s digital lives, they not only censor what they write, but also censor who they associate with, what they read, and, ultimately, alter what they think.¹⁷¹

States also use digital technologies to manipulate thought for electoral or geopolitical purposes. The Cambridge Analytica scandal exposed how political campaigns in the UK (Brexit) and the USA (Trump’s election) used behavioural data to deliver tailored political messages aimed at shaping voter preferences.¹⁷² By using personality tests and Facebook data to infer voter types, the company sent emotionally calibrated messages to sway political opinion in the Brexit referendum and the 2016 USA presidential election. These cases clearly underscore the dangers of allowing private actors to manipulate thought for political ends, and the insufficiency of current legal frameworks to address such threats.

The Spanish Constitutional Court has ruled that their constitutional principle of “ideological freedom”, which scholars interpret as an amalgam of freedom of thought and opinion,¹⁷³ was

¹⁶⁷ Human Rights Watch. (2021). “Break Their Lineage, Break Their Roots”: China’s crimes against humanity targeting Uyghurs and other Turkic Muslims in Xinjiang.

¹⁶⁸ Carly Nyst and Nick Monaco, *State-Sponsored Trolling: How Governments Are Deploying Disinformation as Part of Broader Digital Harassment Campaigns*, Institute for the Future, 2018, p. 8.

¹⁶⁹ Ahmed Shaheed (2021)

¹⁷⁰ Catalogue of bias collaboration; Brassey J; Mahtani KR; Spencer EA. Apprehension bias. In: *Catalogue Of Bias* 2019.

¹⁷¹ Penney, J. W. (2016). Chilling effects: Online surveillance and Wikipedia use. *Berkeley Technology Law Journal*, 31(1), 117–182.

¹⁷² Schreiber, D. (2017). Neuropolitics: Twenty years later. *Politics and the Life Sciences*, 36(2), 114–131.

¹⁷³ Alegre, S. (2021). Regulating around freedom in the “forum internum.” *ERA Forum*, 21(4), 591–604.

threatened by political microtargeting,¹⁷⁴ implicitly agreeing with Spain's Constitutional Ombudsman that microtargeting could “modulate or even manipulate political opinions.”¹⁷⁵ Similarly, in the European Union, lawmakers have proposed banning surveillance-based political advertising under the Digital Services Act, citing its capacity to manipulate opinion covertly.¹⁷⁶

Furthermore, in an era of information warfare, States not only manipulate their own citizens but also target foreign populations. According to military analysts, the primary battlefield in modern conflicts is no longer territory, but consciousness.¹⁷⁷ Propaganda, disinformation, and algorithmic amplification are deployed to achieve “informational superiority” by degrading the epistemic environment of adversaries.¹⁷⁸

These developments point to a broader transformation in governance, the emergence of what Georgios Zarkadakis has called “Hypnocracy”¹⁷⁹, a regime that governs not through laws or force, but by acting directly on consciousness. In this paradigm, data is not just a tool for understanding populations, but also for shaping minds. Citizens are no longer simply watched, they are engineered.

This intersects with the idea that the digital era is the Fourth Industrial Revolution, characterised by the rapid technological advancement of the 21st century.¹⁸⁰ Governments are no longer passive observers of technological change but active participants in directing how neurotechnologies, AI, and behavioural science are used to manage public sentiment and control populations.

Whether pursued by tech companies or State authorities, the manipulation of thought in the digital age is both systematic and strategic. Private actors aim to influence choices to generate profit. Public actors aim to shape beliefs to secure political control. Both do so by exploiting vulnerabilities in the human cognitive system, often without the awareness or consent of the individual.

¹⁷⁴ Council of Europe. (2020). Guidelines on the protection of individuals with regard to the processing of personal data in the context of political campaigns

¹⁷⁵ Alegre, S. (2021).

¹⁷⁶ European Digital Rights. (2021, November 4). Can the EU Digital Services Act contest the power of Big Tech's algorithms?

¹⁷⁷ Dima Adamsky, Cross-Domain Coercion: The Current Russian Art of Strategy, IFRI, Proliferation Papers, 54, November 2015, p. 26

¹⁷⁸ Sergei Chekinov and Sergei Bogdanov, “Asymmetrical Actions to Maintain Russia's Military Security,”

¹⁷⁹ Zarkadakis, G. (2023). Hypnocracy: Trump, Musk and the new architecture of reality. Head of Zeus.

¹⁸⁰ Macpherson, A. (2018, October 17). Addressing the potential human rights risks of the fourth industrial revolution. OpenGlobalRights.

As the scholars Istace and Van de Heyning argue, “Many contexts can be envisioned where individuals, governments, or companies will want to use these abilities in a way that serves their own goals, while fully disregarding people’s fundamental moral interests such as mental privacy and autonomy.”¹⁸¹ Without robust legal protections for the right to freedom of thought, manipulation risks becoming a normalised feature of governance and commerce alike.

4.3 Underlying Reasons and Motivations of Freedom of Thought’s Erosion

As individuals delegate more and more decision-making to intelligent systems, the ethical foundation that once prioritised mental autonomy and human dignity is increasingly challenged. The UN Secretary-General’s High-Level Panel on Digital Cooperation (2019) warned that if algorithms can improve our lives, by freeing up time, they are also becoming adept at manipulating our attention and decisions, compelling us to rethink our understanding of autonomy and even society itself.¹⁸² This section explores the structural forces driving the erosion of freedom of thought, analysing the commercial, political, sociological, and technological dynamics that collectively undermine cognitive self-determination.

4.3.1 Commercial Incentives: Neuromarketing

At the heart of digital manipulation lies a powerful economic logic. Companies have discovered that our thoughts, preferences, and behavioural tendencies constitute a valuable commercial resource. Susie Alegre has convincingly argued that the innovation underpinning the data economy is driven not by a neutral quest for efficiency, but by a desire to enter and influence our minds.¹⁸³ This is the domain of neuromarketing, a field that uses insights from neuroscience and behavioural science to shape consumer behaviour and alter cognitive preferences.

The process begins with data harvesting. Every online search, social media interaction, or digital purchase contributes to a psychological profile capable of predicting, and increasingly influencing, future behaviour. As Shoshana Zuboff puts it, we are entering the age of “human

¹⁸¹ Istace T, Van de Heyning C. Neurorights: Is the Right to Freedom of Thought in Need of an Update? In: O’Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025:335-349

¹⁸² United Nations. (2019). *The age of digital interdependence: Report of the UN Secretary-General’s High-level Panel on Digital Cooperation*.

¹⁸³ Alegre, S. (2017)

futures markets,” where our projected behaviours are traded for profit.¹⁸⁴ The use of algorithms to guide decisions is not a neutral enhancement of efficiency, it is a commercial strategy to create conditions under which we are more likely to make choices profitable for others.

This commercial environment creates an imbalance of power between platforms and users. Individuals lack the psychological literacy and informational transparency necessary to resist influence, especially when cognitive science is weaponised against them. The problem is compounded by the opacity of digital systems and the near impossibility of giving meaningful, informed consent.

The term “surveillance capitalism”¹⁸⁵ describes the economic logic behind many of these practices. As Shoshana Zuboff explains, personal data is not only collected, it is used to predict and shape future behaviour. Individuals vulnerabilities are used by actors who perceive them as opportunities to defend their strategic interests.

In sum, the erosion of freedom of thought in this context is not a by-product of innovation but a business model, one that thrives on manipulating choices and exploiting mental vulnerabilities for profit.

4.3.2 Political Incentives: Neuropolitics

Beyond commercial motives lies a second, equally insidious force, the political exploitation of thought manipulation, or what has come to be known as neuropolitics.

This term captures the growing convergence between neuroscience, data analytics, and political strategy. As the boundaries between behavioural profiling and ideological messaging blur, political actors are increasingly turning to technologies that do not just persuade but condition citizens’ political attitudes from within. Governments, political parties, and consultancies increasingly use microtargeting technologies to nudge voter sentiment and steer electoral outcomes.

Political manipulation through algorithmic profiling takes many forms: disinformation campaigns, emotional targeting, or echo chamber amplification. Subtle, repeated exposure to ideologically aligned content, curated by machine-learning algorithms, can entrench biases and

¹⁸⁴ Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.

¹⁸⁵ Zuboff, S. (2019).

polarise populations. In doing so, they threaten the foundational ideals of ideological freedom and democratic deliberation.

One of the most prominent contemporary illustrations of this is Elon Musk's acquisition of Twitter, now renamed as "X". Under the guise of promoting "free speech," Musk has been accused of systematically reshaping the platform's algorithms to amplify right-wing discourse. According to David Chavalarias, research director at the CNRS, Musk's modifications to the recommendation systems had a measurable political bias, posts aligning with conservative or far-right narratives received enhanced visibility, while opposing views were algorithmically silenced or drowned out in engagement disparity. This transformation of X into a "Trumpian echo chamber" has turned a previously broad-based social medium into a partisan tool of influence, with global political implications.¹⁸⁶

Neuropolitics thus emerges as the use of brain science and predictive behavioural models not to inform the electorate, but to subtly shape their cognitive terrain. This is a new form of power, where access to the digital infrastructure of thought replaces censorship with cognitive conditioning. This political logic of predictive governance was vividly demonstrated in the previously discussed Cambridge Analytica scandal, where psychological data scraped from Facebook was used to target swing voters with emotionally charged political ads, skewing the democratic process in both the Brexit referendum and the 2016 U.S. election.¹⁸⁷

Thus, in the political realm, the manipulation of thought shifted from mere influence to social control. It is no longer about winning votes but securing compliance by curating the cognitive environment of the States' citizens.

4.3.3 Sociological Factors: Cognitive Vulnerabilities and the Crisis of Knowledge

Not all manipulation is top-down. Sociological dynamics, both at individual and collective level, also play a crucial role in the erosion of mental autonomy. At the individual level, cognitive failings, such as intellectual laziness and confirmation bias, make individuals easy targets.¹⁸⁸ Disinformation exploits these vulnerabilities as it is easier to believe information that aligns with one's beliefs than to seek out and verify evidence.

¹⁸⁶ Chavalarias, D. (2023). *Elon Musk en 50 Tweets*. Paris: Éditions Humensciences. See also: David Ingram, "Elon Musk turned X into a Trump echo chamber," NBC News (2024).

¹⁸⁷ Cadwalladr, C., & Graham-Harrison, E. (2018). "Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach," *The Guardian*.

¹⁸⁸ Joel J. Davis, *Advertising Research: Theory and Practice*, 2nd ed., Pearson, 2011

Emotional engagement further drives this phenomenon. Fake news spreads faster than factual news because it is more surprising, emotive, and anxiety-inducing.¹⁸⁹ It engages attention and bypasses the rational mind. In this climate, marketing and propaganda become less about logic and more about affect.

At the collective level, individuals face a broader epistemological crisis. The internet, while democratising access to information, has also liberalised the information market to the point where rational and irrational sources compete equally for attention. Gerald Bronner calls this the “soft underbelly of rationality,”¹⁹⁰ where motivated believers are more active in spreading ideas than sceptics are in debunking them.

This epistemic breakdown creates conditions for “counter-knowledge,”¹⁹¹ driving whole communities to live in alternate cognitive realities. The result is not just misinformation, but a redefinition of the accepted truth. In such a world, fact loses its grip, and thought is shaped not by reason but by tribal identity and ideological claims.

Compounding the problem is a growing mistrust in traditional institutions. The 2018 Edelman Trust Barometer found that the media was among the least trusted institutions, with nearly 70% of people fearing the weaponization of fake news.¹⁹² This mistrust, while perhaps understandable, makes people even more vulnerable to cognitive manipulation, as they seek alternative “truths” in unverified sources.

As such, sociological reasons for thought erosion are not limited to external manipulation. They reflect deeper anxieties and vulnerabilities within the cognitive fabric of society and individuals themselves.

4.3.4 Technological Determinism: Innovation Above Ethics?

Finally, a more philosophical yet dangerous line of reasoning posits that the erosion of freedom of thought is not only inevitable but justified. According to proponents of technological determinism, innovation must take precedence over ethical debate.¹⁹³ In such, the

¹⁸⁹ Soroush Vosoughi, Deb Roy and Sinan Aral, “The Spread of true and false news online,” *Science*, 9 March 2018, p. 1146-1151.

¹⁹⁰ Gérald Bronner, *La Démocratie des crédules*, PUF, 2013, p. 86.

¹⁹¹ Damian Thompson, *Counter-Knowledge: How we surrendered to conspiracy theories, quack medicine, bogus science and fake history*, Atlantic, 2008.

¹⁹² Edelman. (2018). 2018 Edelman Trust Barometer: Global Report. Edelman.

¹⁹³ Francis L, Francis J. Non-ideal Theory and Protecting Freedom of Thought. In: O’Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025:377-390.

digital world, with its promise of wealth, pleasure, and empowerment, should not be constrained by outdated moral frameworks.

David Golumbia, in his critique of cyberlibertarianism, warns against this mentality.¹⁹⁴ He describes it as the belief that social, political, and economic structures are obstacles to personal power and self-determinism, and thus must be removed. The implication is clear, if technological development enables control of thought, then ethics must adapt, not obstruct.

This argument is not merely academic, companies such as Facebook, Neuralink, or Meta openly invest in brain-interface technologies that can decode mental states. The justification is often utilitarian, enabling disabled individuals to communicate, optimising productivity, or improving efficiency.¹⁹⁵

The risk here is the normalisation of thought manipulation. If efficiency becomes the ultimate virtue, mental privacy and intellectual freedom become disposable. Even worse, the burden of responsibility shifts, instead of questioning technology, society is asked to adapt, to become compatible with systems designed not to empower, but to predict and control individuals.

This invites broader reflection. As Zuboff asks, has the society we live in shifted from the ideal of mentally autonomous and self-determining individual to a “culture of control” more driven by the desire to prevent risk than preserve freedom?¹⁹⁶ Do individuals still want to be self-determined, or are they losing their desire to think by themselves? Some argue that relatively few people want to think because it’s tiring,¹⁹⁷ compromising the ideal foundation of democracy itself. Therefore, society needs to be structured to encourage citizens to be able to think rather than letting governments and corporations think for them.

To realise this society, some have imagined another way of governing, one that Zarkadakis named the Cyber Republic. In this future democracy, intelligent machines are not used against citizens but instead facilitate their lives, respecting the harmony between technology and human rights.¹⁹⁸ Rather than opposing technological advancement, the Cyber Republic envisions a future in which AI truly respects human dignity by embedding ethical safeguards into its architecture. Its foundation lies in repositioning AI as a human-centric tool and expanding citizens’ rights in the digital sphere. Zarkadakis’s model provides a constructive framework for

¹⁹⁴ GOLUMBIA, D. (2024). *Cyberlibertarianism: The Right-Wing Politics of Digital Technology*. University of Minnesota Press.

¹⁹⁵ Diable Positif. (2023, November 14). Elon Musk, le self made man [Video]. YouTube.

¹⁹⁶ Zuboff, S. (2019).

¹⁹⁷ Jacobs, A. (2018). *How to Think: A Guide for the Perplexed*. London: Profile Books, (p.17).

¹⁹⁸ Zarkadakis, G. (2020). *Cyber republic: Reinventing democracy in the age of intelligent machines*. MIT Press.

aligning innovation with normative commitments to mental autonomy, inviting a more democratic and rights-conscious technological world.

This chapter has explored how manipulation of thought increasingly stems not from overt coercion but from the subtle entanglement of technological systems with human cognition. From behavioural nudges to brain-interface innovation, the evolving tools of influence reveal a structural shift, one where efficiency and control often outweigh ethical deliberation. If society is to avoid slipping into a deterministic future where freedom of thought is treated as expendable, the institutional mechanisms meant to protect it must be fully effective.

5. ASSESSING THE SUFFICIENCY OF THE CURRENT LEGAL FRAMEWORK

The dual potential of new technologies underscores the urgency of anticipating harm and proactively establishing safeguards. It is therefore essential to evaluate whether the current legal and institutional framework provides sufficient protection for the right to freedom of thought amid evolving cognitive threats. This chapter undertakes that task by critically examining the level of enforcement of the right, identifying gaps in protection, and considering whether reinterpretation or normative innovation is necessary to preserve its integrity in the digital age.

5.1 Indirect Protections of the Right to Freedom of Thought

As expounded throughout the paper, despite its elevation as an absolute and non-derogable right in international law, the right to freedom of thought remains largely unprotected in practice. It is not supported by a standalone doctrinal framework but instead survives through a fragile architecture of adjacent rights, such as privacy, data protection, freedom of expression, and, more recently, emergent ‘neurorights’ frameworks. This indirect reliance, often described as “protection par ricochet”,¹⁹⁹ offers incomplete and sometimes distorted safeguards. It reflects a systemic misapprehension of the right to freedom of thought distinct structure and normative function, ultimately reducing its legal enforceability and conceptual coherence.

Article 8 of the ECHR, which protects private life and psychological integrity, has become a default surrogate for the right to freedom of thought claims. The ECtHR has interpreted “private life” expansively to include elements of identity, belief, and psychological well-being.²⁰⁰ However, this interpretive generosity masks a critical limitation, Article 8 is designed to prevent unjustified invasion or exposure, not to prohibit internal manipulation or cognitive intrusion before expression occurs. Bublitz argues that privacy law shields what is revealed, not what remains unspoken,²⁰¹ a fundamental mismatch when applied to the right to freedom of thought, which protects the unexpressed, pre-decisional space of the mind.

The European data protection regime, epitomised by the General Data Protection Regulation (GDPR), adds another layer of indirect protection. The GDPR regulates the processing of sensitive personal data, including biometric and neurodata, and introduces principles such as

¹⁹⁹ Bublitz (2014)

²⁰⁰ European Court of Human Rights. (2017). Guide on Article 8 of the European Convention on Human Rights: Right to respect for private and family life (1st ed.). Council of Europe.

²⁰¹ Bublitz (2014)

purpose limitation, transparency, and informed consent.²⁰² Yet, its underlying logic is commercial, it treats individuals as data subjects capable of consenting to the collection and use of their information. Consent in the digital age often occurs after behavioural inference has already taken place, meaning cognitive boundaries are crossed before individuals can exercise any form of agency.²⁰³ Some, likewise critique the GDPR's overreliance on notice-and-choice frameworks, which fail to capture the epistemic asymmetry between digital subjects and algorithmic systems.²⁰⁴

Even freedom of expression, often hailed as the right to freedom of thought's functional cousin, offers little protection for internal mental activity. Article 10 of the ECHR and Article 19 of the ICCPR protect the right to hold opinions, disseminate and receive information, but they presuppose that the subject has already made the transition from thought to expression. Expression law is structured around communicative acts (tweets, publications, protests) and legal harm is assessed on the basis of what is made public. The right to freedom of thought, by contrast, seeks to prevent harm before disclosure, targeting interference with the internal processes that precede articulation. The legal tools for addressing that pre-communicative zone are practically non-existent in current expressive rights frameworks.

A recent and promising addition to this web of indirect protection is the concept of neurorights, which seeks to carve out specific legal domains for brain data, mental autonomy, and cognitive liberty. Chile's 2021 constitutional amendment is the most prominent example of this turn, explicitly referencing mental integrity as a protected interest and calling for the regulation of neurotechnologies.²⁰⁵ However, even neurorights as currently framed, tend to mirror the structures of existing rights, emphasising informed consent and data access rather than directly confronting the need for a non-inferable principle, where mental content needs protection from inference regardless of data disclosure.²⁰⁶ Moreover, neurorights initiatives often fail to specify the unique procedural mechanisms or institutional mandates needed to make such protections enforceable.

²⁰² European Union. (2016). Regulation (EU) 2016/679 of the European Parliament and of the Council (General Data Protection Regulation – GDPR). Official Journal of the European Union, L119/1.

²⁰³ Richards, N. M., & Hartzog, W. (2019). The Pathologies of Digital Consent. *Washington University Law Review*, 96(6), 1461–1505.

²⁰⁴ Tzanou, M. (2017). *The Fundamental Right to Data Protection: Normative Value in the Context of Counter-Terrorism Surveillance*. Bloomsbury.

²⁰⁵ Bacigalupo, J., Rodríguez, M., & Covarrubias, D. (2021). Neurorights in Chile: The constitutional amendment and its implications. *Neuroethics*, 14(3), 335–349.

²⁰⁶ Ienca, M., & Andorno, R. (2017). Towards new human rights in the age of neuroscience and neurotechnology. *Life Sciences, Society and Policy*, 13(5).

The core flaw in this architecture of indirect protection is not simply a matter of conceptual stretching, but of categorical confusion. Privacy, data, and expression laws are built for outward-facing risks, leaks, misuse, censorship, while the right to freedom of thought guards inward-facing integrity. These are gateway rights, but the right to think freely is at the heart of what it means to be human. This means legal analysis tends to overlook violations that leave no trace, as when an algorithm primes a decision, when a targeted advertisement exploits cognitive bias, or when a neural interface conditions behaviour without conscious perception. These are not only breaches of privacy or speech, they are more than that, they are breaches of the mind.²⁰⁷

The dependency of this indirect framework on *a posteriori* remedies, renders it structurally incapable of pre-empting violations. Most adjacent rights regimes operate retrospectively, they address harms once they have been expressed, discovered, or litigated. The right to freedom of thought, by contrast, demands *a priori* protection, grounded in the principle of non-interference with mental autonomy itself, not just its outputs. Without doctrinal tools specifically calibrated to detect and respond to cognitive manipulation, legal systems will continue to misclassify the right to freedom of thought harms or fail to register them at all.

The jurisprudential result of this indirect architecture is invisibility,²⁰⁸ the right to freedom of thought is invoked everywhere but protected nowhere. Its absorption into sister rights undermines its distinctive normative role as the guardian of sovereignty over our minds. If the right is to survive the digital age, it must be treated not as a residual or ancillary right, but as a primary legal interest, one that demands its own doctrinal logic, institutional mandate, and procedural infrastructure. This requires legal innovation at every level,²⁰⁹ a task that the next chapter will begin to construct.

5.2 Mapping the Global Legal Landscape of the Right to freedom of Thought

Although the right to freedom of thought is widely proclaimed in international legal texts, its translation into national law varies significantly across jurisdictions. In a handbook which brings together country reports written by legal scholars from around the globe, O’Callaghan and Shiner map how the right to freedom of thought is embedded in the different legal systems. The aim of this collaborative work is to understand how the right to freedom of

²⁰⁷ McCarthy-Jones, S. (2019)

²⁰⁸ Istace T, Van de Heyning C. (2025)

²⁰⁹ Farahany, N. (2023)

thought is given expression internationally.²¹⁰ The authors explain that across jurisdictions, only a small number of legal systems offer direct, distinct, and enforceable recognition of the right. Most states either subsume the right within adjacent protections, such as privacy or freedom of religion, or treat it as a rhetorical value with little operative force. The result is a fragmented legal landscape in which freedom of thought is formally guaranteed but globally under-protected.²¹¹

O’Callaghan and Shiner emphasise the importance of constitutional entrenchment for effective legal protection. Where constitutions explicitly enshrine the right to freedom of thought, legal systems are more likely to develop jurisprudence, doctrine, and enforcement pathways. By contrast, in jurisdictions where the right is omitted or ambiguously phrased, courts and legislators often default to adjacent frameworks, diluting the distinct normative function of cognitive liberty. As this section shows, the future of freedom of thought as a justiciable and enforceable right depends significantly on how clearly it is embedded in the foundational texts of national legal orders.

The European landscape illustrates this dilemma acutely. Article 9 of the ECHR and Article 10 of the EU Charter both refer to freedom of thought, yet neither has been substantively applied in isolation.²¹² As clarified in the previous subchapter, the ECtHR has never issued a ruling focused exclusively on freedom of thought, even when claimants have invoked it explicitly.²¹³ Instead, the Court routinely redirects analysis toward more developed rights, especially Article 8 (private life) or Article 10 (freedom of expression), thereby bypassing the cognitive core of the harm.

This jurisprudential avoidance reflects deeper structural limitations. European legal doctrine lacks analytical tools to evaluate non-expressed, pre-behavioural forms of manipulation. Without clear definitions or thresholds for mental interference, courts remain hesitant to engage with the internal forum of thought. Moreover, the absence of *travaux préparatoires* on the scope of “thought” in the ECHR has left a doctrinal vacuum that national courts rarely seek to fill.²¹⁴

²¹⁰ O’Callaghan, P., & Shiner, B. (Eds.). (2025). Introduction. In *The Cambridge Handbook of the Right to Freedom of Thought* (pp. 1–30). part, Cambridge: Cambridge University Press.

²¹¹ Alegre, S. (2017).

²¹² Benziger F. (2025).

²¹³ Ibid

²¹⁴ Loucaides, L. G. (2012). The right to freedom of thought as protected by the European Convention on Human Rights. *Cyprus Hum. Rights Law Rev.* 1

Thus, freedom of thought survives in European law as an aspirational value rather than a functional legal claim.²¹⁵

In contrast to regional frameworks, O’Callaghan and Shiner explain that some national constitutions have taken more proactive steps to recognise and isolate freedom of thought as a distinct legal right.

Japan offers one of the clearest examples. Article 19 of the 1947 Constitution affirms that “freedom of thought and conscience shall not be violated.”²¹⁶ Japanese courts have interpreted this article in cases involving coerced ideological disclosure, especially in employment and educational contexts.²¹⁷ While its application to digital or neurotechnological threats remains limited, the linguistic precision and conceptual autonomy of “thought” as a standalone right create a strong doctrinal foundation for future expansion.

South Africa follows a similarly robust model. Section 15(1) of the 1996 Constitution explicitly protects “freedom of conscience, religion, thought, belief and opinion,” thus elevating thought to a primary status in its rights architecture.²¹⁸ Although the right has mostly been developed through religious freedom cases, its constitutional status allows for doctrinal growth. The country’s post-apartheid jurisprudence, with its emphasis on dignity, restorative justice, and structural harm, is especially well-suited to addressing the invisible and systemic nature of cognitive interference.²¹⁹

Colombia provides a particularly advanced example. Its Constitutional Court has developed a detailed conception of the right to freedom of thought, grounded in both the national constitution and international treaties such as the ICCPR and ACHR. The Court identifies four key dimensions: cognitive autonomy, non-coercion, non-disclosure, and non-punishment of internal beliefs.²²⁰ According to O’Callaghan and Shiner, this articulation not only provides clarity but also operational depth, making the right justiciable in cases involving surveillance, ideological pressure, or emerging neurotechnologies.

²¹⁵ Ahmed Shaheed (2021)

²¹⁶ Constitution of Japan. (1947). Article 19.

²¹⁷ Yokodaido, S. (2025). The Right to Freedom of Thought in Japan. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought* (pp. 33–45). chapter, Cambridge: Cambridge University Press.

²¹⁸ Constitution of South Africa. (1996). Section 15(1).

²¹⁹ Jones, M. (2025). The Right to Freedom of Thought in South Africa. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought* (pp. 200–211). chapter, Cambridge: Cambridge University Press.

²²⁰ D. González Medina and S. Rubiano-Groot Gómez, ‘The Right to Freedom of Thought in Colombia. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought*. Chapter 20, Cambridge: Cambridge University Press.

Brazil too introduces important doctrinal elements. Article 5 of its 1988 Constitution protects “freedom of conscience and belief” and includes a rarely seen provision: the right not to be compelled to disclose one’s beliefs.²²¹ This formulation echoes deeply with the right not to reveal one’s thought, essential component of freedom of thought. In the era of algorithmic profiling and behavioural prediction, such provision offers fertile ground for legal development. While Brazilian jurisprudence has not yet translated this into protections against digital cognitive manipulation, the constitutional text provides a potential normative anchor.²²²

India presents a more complex case.²²³ While its Constitution lacks a distinct clause on the right to freedom of thought, the Supreme Court has interpreted “freedom of conscience” and “freedom of expression” in expansive ways. In *Bijoe Emmanuel v. State of Kerala* (1986), the Supreme Court protected students who refused to sing the national anthem on the basis of silent dissent, interpreting “freedom of conscience” to include the internal choice not to affirm certain state symbols.²²⁴ This case illustrates a potential path for recognising freedom of thought even within older constitutional frameworks, through judicial interpretation that emphasises cognitive autonomy over performative loyalty. However, in practice, India has struggled to apply this logic to digital forms of influence, and the right remains jurisprudentially implicit.²²⁵

Chile, as discussed earlier, remains a global precedent. No country has gone further in adapting its legal system to 21st-century cognitive risks. Its 2021 Neurorights constitutional amendment, the first of its kind globally, explicitly protects mental integrity and brain data,²²⁶ thus acknowledging the novel threats posed by neurotechnologies and AI systems. While the implementation and regulatory instruments are still evolving, the initiative is crucial as a proof that legal systems can recognise the unique vulnerabilities of the cognitive domain and legislate accordingly. Chile’s approach shifts freedom of thought from a rhetorical declaration into a legally operable principle, potentially triggering similar debates in Latin America and beyond.²²⁷ Chile’s model is also particularly interesting for its institutional design. Its neurorights framework includes the participation of both governmental oversight bodies and

²²¹ Brazilian Federal Constitution. (1988). Article 5(VI–VIII).

²²² L. Oliveira Vianna, *The Right to Freedom of Thought in Brazil*. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought*. Chapter 18, Cambridge: Cambridge University Press.

²²³ Amal Dhru, K. (2025). *The Right to Freedom of Thought in India*. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought* (pp. 83–94). Cambridge: Cambridge University Press.

²²⁴ Supreme Court of India. (1986). *Bijoe Emmanuel & Ors v. State of Kerala & Ors*, AIR 1986 SC 749.

²²⁵ Amal Dhru, K. (2025). *The Right to Freedom of Thought in India*

²²⁶ Constitutional Reform Act N° 21.383 (October 25, 2021).

²²⁷ Bacigalupo, J., Rodríguez, M., & Covarrubias, D. (2021)

leading figures in neuroscience and neuroethics. This interdisciplinary alignment enhances both the legitimacy and precision of proposed protections, revealing a new path of legal innovation “where scientific innovation and social responsibility can coexist in the fields of neurotechnology and AI”.²²⁸

Together, these examples map a spectrum of legal engagement with freedom of thought. At one end are jurisdictions where the right is textually and doctrinally anchored in constitutional law, even if under-enforced. At the other are systems that rely on adjacent rights protection, such as privacy, expression, or religious freedom, approaches that offer flexibility but risk diluting the right to freedom of thought’s unique features.²²⁹

These insights suggest that the weakness of the right to freedom of thought is not inevitable, but contingent, a product of institutional design, doctrinal priorities, and political will.²³⁰ Jurisdictions that articulate the right as a self-standing normative interest are better positioned to adapt their legal systems to the psychological and cognitive asymmetries of the digital age. The failure lies not in legal imagination, but in the willingness to treat mental freedom with the same doctrinal seriousness as bodily integrity or due process. The challenge ahead is to build upon these promising fragments to design a coherent legal architecture for thought, an architecture that will be the focus of the next chapter.

5.3 Enforcement Failures of the Right to Freedom of Thought

Even where the right to freedom of thought is recognised in principle, its legal enforcement remains hollow. This disconnection is not simply a matter of legal theory lagging behind technological development, it is the result of institutional inertia across judicial, regulatory, and legislative domains.²³¹

Courts hesitate to adjudicate mental autonomy claims due to legal ambiguity. Regulatory bodies lack both the mandate and tools to address cognitive manipulation. Legislators, in turn, sidestep the issue altogether, treating freedom of thought as too abstract, controversial, or philosophically fraught. The result is a legal system structurally incapable of detecting, naming,

²²⁸ Einhorn E, Yuste R. Neurorights and the Chilean Initiative. In: Ienca M, Pollicino O, Liguori L, Stefanini E, Andorno R, eds. *The Cambridge Handbook of Information Technology, Life Sciences and Human Rights*. Cambridge Law Handbooks. Cambridge University Press; 2022:26-31.

²²⁹ O’Callaghan, P., & Shiner, B. (Eds.). (2025). Introduction.

²³⁰ McCarthy-Jones, S. (2019)

²³¹ Ahmed Shaheed (2021).

or remedying violations of the right to freedom of thought, even as such violations become increasingly more common.²³²

This doctrinal vacuum produces a double invisibility.²³³ Right to freedom of thought harms are both unrecognised in law and often unfelt by victims. Algorithmic nudging or microtargeting, rarely trigger personal awareness, let alone legal mobilisation. When individuals are manipulated before they know they've been targeted, there is no defendant, no damage calculation, and no harm recognised by existing legal frameworks. As McCarthy-Jones notes, right to freedom of thought violations often resemble cognitive trespass. They are silent, invisible, and legally illegible.²³⁴

As developed earlier, both national and international courts exhibit marked avoidance when confronted with potential harms to the right to freedom of thought. The ECtHR has never issued a ruling focused squarely on Article 9's protection of thought.²³⁵ Even in landmark cases involving ideological coercion, such as *Fernández Martínez v. Spain*²³⁶ or *Söderman v. Sweden*²³⁷, the Court relied on sisters' rights like private life or religious freedom, avoiding engagement with mental integrity as a distinct harm. This is not unique to Strasbourg. In most jurisdictions, domestic courts lack doctrinal tests, burden-of-proof standards, or procedural guidelines for adjudicating claims based on non-expressed mental interference. Thought, by definition, leaves no evidence. Legal harms that do not produce speech, conduct, or data tend to fall outside the scope of admissible claims.

Further complicating enforcement is the diffusion of responsibility across institutions.²³⁸ Who should act when mental autonomy is threatened: constitutional courts, privacy regulators, technological companies or ethics committees? The absence of a dedicated institution for the claims about the right to freedom of thought creates a jurisdictional vacuum. There is no body tasked with building the jurisprudence, collecting data on manipulation, issuing regulatory

²³² Bublitz, J. C. (2011). "If man's true palace is his mind, what is its adequate protection? On a right to mental self-determination and limits of interventions into other minds"

²³³ Alegre, S. (2017).

²³⁴ McCarthy-Jones (2019)

²³⁵ Yildirim-Vranckaert, E.O. (2023), 'The Right to Construct Yourself and Your Identity: The Current Human Rights Law Framework Falls Short in Practice in the Face of Illegitimate Interference to the Mind', *American Journal of Law & Medicine*.

²³⁶ ECtHR. (2014). *Fernández Martínez v. Spain*, App. No. 56030/07, Judgment of 12 June 2014.

²³⁷ ECtHR. (2013). *Söderman v. Sweden*, App. No. 5786/08, Judgment of 12 November 2013.

²³⁸ OECD, *Recommendation on Responsible Innovation in Neurotechnology*, 2019

guidelines, or defending mental integrity in public discourse.²³⁹ This institutional fragmentation not only renders the right to freedom of thought underenforced, but also unenforceable by itself.

Legislatures have shown little interest in remedying this gap. In many jurisdictions, the right is politically marginalised.²⁴⁰ Lawmakers focus instead on adjacent policy concerns, misinformation, surveillance, mental health, while ignoring their root convergence in the domain of cognitive liberty.²⁴¹ Parliamentary discussions rarely address freedom of thought directly, and civil society actors struggle to translate philosophical or ethical concerns into actionable legal proposals.²⁴² Even Chile's constitutional recognition of neurorights, while symbolically powerful, has yet to produce institutional mechanisms or enforceable protections. Without supporting legislation, regulatory clarity, or judicial guidelines, the amendment risks becoming aspirational rather than operational.²⁴³

The UN Special Rapporteur on freedom of religion or belief has warned of this dynamic. Rights that exist textually but lack interpretive anchoring or institutional pathways become functionally useless.²⁴⁴ The Rapporteur emphasises that the right to freedom of thought, in its current legal form, is "not well understood and has been largely overlooked by human rights actors".²⁴⁵ Without direct normative recognition and legal innovation, mental autonomy will remain subordinate to other interests, economic, political, or technological, that are far more institutionally entrenched.

Occasionally, incremental progress is cited as evidence of improvement. Data regulators have issued fines for manipulative "dark patterns" in user interfaces.²⁴⁶ Courts have recognised emotional harm from surveillance or targeted advertising.²⁴⁷ Yet these gains are episodic and globally ineffective to remedy the eroding freedom of thought. They treat symptoms without diagnosing the core pathology. Current tools were built for different times, different threats, and different subjects. The structural limitations of 20th-century rights frameworks are now exposed by 21st-century realities they were never designed to meet.²⁴⁸

²³⁹ McCarthy-Jones (2019)

²⁴⁰ Ahmed Shaheed (2021)

²⁴¹ Alegre, S. (2017)

²⁴² Ahmed Shaheed (2021)

²⁴³ Bacigalupo, J., Rodríguez, M., & Covarrubias, D. (2021)

²⁴⁴ Ahmed Shaheed (2021)

²⁴⁵ Ibid

²⁴⁶ Lucid Privacy Group. (2023, August 2). Cookies and dark patterns: UK ICO warns top publishers of coming enforcement. Lucid Privacy Blog.

²⁴⁷ High Court of Justice (Queen's Bench Division). (2018, May 31). *Gubarev v. Orbis Business Intelligence Ltd & Ors* [2018] EWHC 512 (QB).

²⁴⁸ Alegre, S (2017)

The right to freedom of thought thus remains legally inert not simply because it is complex or emergent, but because institutions have abdicated the responsibility to see, define, and enforce it. The legal system currently protects thoughts only after they become data, expression, or conduct, at which point the most intimate aspect of autonomy has already been compromised. If the legal community continues to treat the mind as beyond its reach, then freedom of thought will remain the most endangered right of the digital era.

5.4 The Need for Doctrinal Autonomy and Legal Innovation

If the right to freedom of thought is the cornerstone of human rights,²⁴⁹ then the current legal order is built upon a fragile and compromised foundation. As this chapter has shown, the right is affirmed in principle yet not developed in practice. It lacks case law, doctrinal tests, enforcement mechanisms, and interpretive authority.

The ECHR has long been deemed a living instrument, meaning that the ECtHR must interpret it dynamically in light of present-day conditions.²⁵⁰ Yet to date, Article 9 is constantly avoided, and freedom of thought survives as a doctrinal afterthought, subsumed into privacy, borrowed by data protection, and blurred with freedom of expression. This is a structural failure that renders mental autonomy legally invisible at the moment it is most under siege. Freedom of thought is a freestanding right in international law, which can be separated from these related rights.²⁵¹

What this chapter reveals is a legal system that has outsourced mental sovereignty, underestimating the existing threats posed to the mind. Institutions fail not only to protect mental autonomy but to even recognise its erosion. Courts default to expressive rights, regulators to data violations, legislators to content moderation, none of which are equipped to confront the slow erasure of individual's ability to think autonomously. The very fact that the right is invoked rhetorically but rarely litigated or enforced confirms its subordinate legal status.²⁵² It has become what legal theorist Robert Cover once called “a norm without a nomos”,²⁵³ a right without a world.

²⁴⁹ European Court of Human Rights judgment in *Nolan and K. v Russia*, No 2512/04, [2009] ECHR 262 §61.

²⁵⁰ Preparatory Work on Article 9

²⁵¹ O’Callaghan and Shiner (2025)

²⁵² Bacigalupo, J., Rodríguez, M., & Covarrubias, D. (2021)

²⁵³ Cover, R. M. (1983). *The Supreme Court, 1982 Term—Foreword: Nomos and Narrative*. *Harvard Law Review*, 97(1), 4–68.

This is not only a theoretical problem. Without freedom of thought's doctrinal autonomy, people cannot properly contest the manipulation of their beliefs, the engineering of their preferences, or the profiling of their psychological states. They cannot meaningfully assert non-consent to unlawful intrusion, because no law defines it.²⁵⁴ And when no pathway exists for contesting mental interference, the law becomes complicit in its normalisation.²⁵⁵ Inaction ceases to be neutral and becomes a form of permission. Individuals are therefore left cognitively exposed while the legal system insists on regulating only what is said, shared, or stored. In this configuration, freedom of thought becomes a right without standing, without remedy, and without relevance.²⁵⁶

Philosophically, the consequence is even more profound. The erosion of mental autonomy undermines all other rights.²⁵⁷ It precedes and enables reason, dissent, and the capacity to choose. The ability to form beliefs and question narratives presupposes a zone of uncoerced reflection.²⁵⁸ If that zone is colonised, by State propaganda, commercial targeting, or neuro-predictive practices, the preconditions of self-determinism collapse, bringing democracy itself down in the fall.²⁵⁹

Protecting thought does not entail regulating mental content or punishing mental states. It entails establishing negative duties of non-interference and positive duties to preserve mental autonomy.²⁶⁰ Just as bodily integrity does not require policing organs but forbidding unconsented surgery, so too mental integrity does not require policing ideas but forbidding covert manipulation.

This protection is not only a normative duty, it is also a strategic imperative.²⁶¹ Indeed, as Alegre reminds us, protecting freedom of thought is ultimately the key to technological and democratic innovation. No society can invent and evolve in a world where thinking freely is compromised. A culture of mental conformity, however efficient, will always be intellectually barren. Preserving the right to freedom of thought is not only about preventing harm, it is about

²⁵⁴ McCarthy-Jones (2019)

²⁵⁵ Farahany, N. (2023)

²⁵⁶ McCarthy-Jones (2019)

²⁵⁷ UNECOSOC, Commission on Human Rights, Third Session, Summary Record of the Sixtieth Meeting (23 June 1948) UN Doc E/CN.4/SR.60, 10.

²⁵⁸ Bublitz (2014)

²⁵⁹ Zuboff, S. (2019)

²⁶⁰ Alegre, S. (2017)

²⁶¹ *Ibid.*

defending the very conditions of imagination upon which creative, ethical, and political progress depend.

Moreover, in the face of new technologies whose long-term effects are uncertain but potentially irreversible, legal systems must be guided by the precautionary principle²⁶². When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm.²⁶³ In the context of freedom of thought, the principle mandates that legal protection be enacted before harm becomes routine, especially where manipulation may be subtle, undetectable, or asymmetrically distributed across social groups. As defined by international ethical guidance, the precautionary principle requires measures that are proportional, participatory, and morally justified, even in conditions of epistemic ambiguity. The right to freedom of thought demands precisely this form of anticipatory protection.

In the digital age, protecting freedom of thought is not optional, it is existential. The law must be able to see the mind not as a target or data point, but as a sanctuary. The task now is to design a legal architecture worthy of that sanctuary.

²⁶² COMEST (2005). *The Precautionary Principle*, p.14. Paris: UNESCO.

²⁶³ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (GDPR)

6. STRENGTHENING LEGAL PROTECTIONS FOR FREEDOM OF THOUGHT

The preceding chapters have revealed the conceptual fragility and practical underdevelopment of the right to freedom of thought within existing legal systems. This chapter proposes a path forward. It explores whether existing human rights can be adapted or clarified to meet contemporary threats, assesses the role of law, policy, and regulation in safeguarding mental autonomy, and examines alternative mechanisms in ethical, institutional, and societal fields, in order to support a more resilient and meaningful protection of the *forum internum* in the digital age. The chapter insists on the central place digital literacy and public awareness have in equipping citizens, especially children, with the tools to safeguard their freedom of thought against manipulation.

6.1 The legal future of the right to freedom of thought

As digital and neurotechnological advances intensify, the right to freedom of thought faces mounting pressures that challenge both its legal interpretation and normative role. This section explores whether the right to freedom of thought can be adapted or clarified to confront these modern cognitive threats. It first investigates if the emergence of concepts like “cognitive liberty” and “mental privacy” signals the need for entirely new neurorights, or rather these can be understood as extensions of the existing legal framework. It then examines whether the absolute nature of the right to freedom of thought can, and should, be preserved in light of growing calls for functional flexibility.

6.1.1 Do We Need New Human Rights?

The accelerating convergence of neurotechnology, artificial intelligence, and behavioural profiling raises a fundamental question, whether the right to freedom of thought, as currently defined in international human rights law, is sufficient to protect mental autonomy in the digital age. While novel concepts such as cognitive liberty, mental privacy, and psychological continuity have been proposed as new “neurorights,” a closer analysis reveals that these ideas often represent functional elaborations of the right to freedom of thought, not independent legal paradigms.²⁶⁴ This section argues that the right to freedom of thought, though historically underdeveloped, remains the most promising normative foundation for protecting

²⁶⁴ Alegre (2021)

the mind from technological intrusion. Rather than inventing new rights, the more pressing task is to doctrinally clarify and operationalise freedom of thought to meet the realities of cognitive vulnerability in the 21st century.

Legal theorist Bublitz characterises freedom of thought as a “beautiful but hollow” right, absolute in theory, yet practically inert.²⁶⁵ In his critique, absolute rights are rarely litigated not because they are irrelevant, but because their boundaries remain undefined. Instead of being guiding stars in the constitutional universe, they are empty provisions, resulting in what he calls the “tragedy of absolute rights”. Bublitz argues that this conceptual fragility leaves the right to freedom of thought unable to address challenges like cognitive enhancement, mind reading, or algorithmic manipulation, phenomena that demand legal responses beyond the classical prohibitions of indoctrination or coercion. His proposed solution is not to discard freedom of thought but to develop additional rights around the notions of mental privacy and integrity. These adjacent frameworks can provide legal mechanisms for handling interference that falls outside the right to freedom of thought’s historically narrow scope.

Similarly, Farahany supports the recognition of “cognitive liberty” as a new human right, arguing that the right to freedom of thought has been too narrowly interpreted to protect the full range of mental activities threatened by modern technologies.²⁶⁶ She emphasises that recognition has expressive and symbolic power, labelling a right makes its protection a political priority. However, even Farahany acknowledges that “cognitive liberty” draws from the existing architecture of the right to freedom of thought, privacy, and self-determination. The new right would primarily serve as an integrative mandate to update these older rights within a coherent framework, rather than replace them.

This integrative logic is formalised by Istace and Van de Heyning, who propose that the right to freedom of thought should be complemented by a non-absolute protection of all mental states against illegitimate interference.²⁶⁷ In their framework, freedom of thought remains the cornerstone of absolute protection for inner thought, belief, and ideological identity, while non-absolute protection, through the right to privacy, regulates legitimate forms of mental influence that fall short of coercion. This structure allows the legal system to differentiate between acceptable persuasion (for general safety) and prohibited interference (such as brainwashing or neurotargeting). However, even this model depends on clarifying the right’s internal and

²⁶⁵ Bublitz (2014)

²⁶⁶ Farahany (2023)

²⁶⁷ Istace T and Van de Heyning (2025)

external scope. Internally, the right to freedom of thought should shield attentional and cognitive agency, whereas externally, it should protect actions constitutive of thought, such as online searches, private reading, or digital reflection.

Yet, many scholars caution against the proliferation of new rights. Alegre contends that concepts like “cognitive liberty”²⁶⁸ and “mental self-determination”²⁶⁹ are not normative inventions, but practical extensions of the right to freedom of thought.²⁷⁰ For Alegre, freedom of thought already encapsulates the core ethical principle at stake, which is the right to form one’s thoughts and beliefs free from illegitimate influence. The proliferation of new mental rights risks diluting freedom of thought legal coherence and symbolic force. Instead of fragmenting the legal landscape, she proposes that we reinterpret and expand the right to cover the full spectrum of the mind, including online data which allows to peek into one’s preferences emotions and views in order to manipulate them.

Critics like Ienca and Andorno have nonetheless advocated for the adoption of neurorights, calling for the creation of four new human rights, cognitive liberty, mental privacy, mental integrity and psychological continuity.²⁷¹ They argue that these additional rights are essential to shield individuals from the unique risks posed by neurotechnologies, risks they believe are insufficiently addressed under current legal frameworks. The proposed right to mental privacy, for example, is intended to strengthen existing privacy protections by specifically targeting the handling of neurodata, which they view as intimately tied to a person’s inner mental life and sense of self. Likewise, the suggested right to psychological integrity is designed to fortify the broader right to identity by safeguarding the coherence and continuity of one’s mental states at the neurological level.

However, creating new rights without clear mechanisms for enforcement risks producing symbolic gestures with limited legal utility.²⁷² Indeed, just because case law on the issue of neurotechnology has not yet had the chance to emerge, it does not mean that the existing rights will not offer adequate protection.²⁷³ When reflecting on the introduction of neurorights, it should be considered whether the aimed level of protection is best realised by introducing new, stand-alone human rights, or by interpreting existing rights in a way that may result in a similar

²⁶⁸ Farahany (2023)

²⁶⁹ Bublitz, J. C., and Merkel, R. (2014).

²⁷⁰ Alegre (2021)

²⁷¹ Ienca, M., & Andorno, R. (2018)

²⁷² Alegre (2021)

²⁷³ Istace T and Van de Heyning (2025)

level of protection.²⁷⁴ As the UN Special Rapporteur on freedom of religion or belief has noted, what is most urgently needed is “further clarity on the legal content and scope” of existing rights, not necessarily new formulations.²⁷⁵

The way forward lies not in expanding the constellation of human rights, but in mapping the terrain of the right to freedom of thought more precisely. This means refining its core to protect both the internal formation of thought and the external conditions necessary for mental autonomy. It also means embedding the right to freedom of thought more deeply within intersecting rights frameworks, privacy, expression, data protection, so that it becomes a legally visible and justiciable norm, rather than a rhetorical ideal. Efforts to create new rights often stem from insufficient doctrine, which is the result of an interpretative failure, not the absence of legal concept itself.²⁷⁶ This thesis argues that the right to freedom of thought, properly developed, has the legal capacity to cover the ethical, technological, and psychological dimensions of mental autonomy in the digital era.

6.1.2 Can the right to freedom of thought remain absolute?

While much of the discussion so far has assumed the absolute nature of the right, this premise itself is under philosophical scrutiny. A fundamental debate exists within the doctrine as to whether certain forms of mental interference may ever be justified.²⁷⁷ When developing the legal framework of the right to freedom of thought, some scholars question the potential legitimacy of some interference, questioning the absoluteness of the right.

McCarthy-Jones explains the two dominant ethical positions shaping this debate.²⁷⁸ The first, defending the absoluteness of the right, is deontological, which argues that freedom of thought is foundational, an intrinsic good that should admit no exception. To interfere with the *forum internum*, under this view, is to negate the very conditions of personhood and human dignity. Even the potential for benefit does not justify its erosion.

The second, he writes, is a qualified consequentialist stance, which holds that limited, transparent, and regulated interferences may be permissible if they yield significant public

²⁷⁴ Ienca, M. (2021). On neurorights. *Frontiers in Human Neuroscience*, 15, Article 701258.

²⁷⁵ Ahmed Shaheed (2021)

²⁷⁶ Istace T and Van de Heyning (2025)

²⁷⁷ Francis L, Francis J. Non-ideal Theory and Protecting Freedom of Thought. In: O’Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025:377-390.

²⁷⁸ McCarthy-Jones (2019)

goods.²⁷⁹ Better known as the non-ideal theory,²⁸⁰ this view defends that new technologies could radically improve human wellbeing, accelerating communication, restoring lost capacities, and enabling more efficient learning or decision-making.²⁸¹ Similar to previously developed technological determinist theories, which argue that innovation must take precedence over ethical debate, for non-ideal theorists, the understanding of rights and the weight to be given to them may not be the same in differing circumstances of injustice.²⁸² For instance, intrusive data collection could be justified if the aim is to detect antisemitic thoughts.²⁸³ Similarly, derogation from the right would be permitted in the interests of national security in the case of terrorism threat²⁸⁴. Therefore, maintaining an absolute right to freedom of thought may actually impede beneficial technological progress and societal wellbeing, justifying it becoming legally relative.

The application of non-ideal theory to the right to freedom of thought is highly provocative, to fully realise the promise of emerging cognitive tools, society might need to trade some of its deepest moral commitments for speed, utility, and adaptive progress. Yet, this line of thinking raises the dangerous question of knowing if we are willing to undermine human dignity and democracy for the sake of innovation and progress. Caution is warranted. The temptation to treat cognitive access as a tool for social efficiency risks normalising practices that were once considered unthinkable. History offers numerous warnings about how pragmatic exceptions, once accepted, become systemic intrusions. As Farahany notes, once the boundaries of the mind become legible, they quickly become negotiable, and then commercialised.²⁸⁵

Having examined the evolving legal architecture of the right to freedom of thought, questioning whether it needs to be redefined, supplemented by new neurorights, or clarified to preserve its normative integrity, attention must now shift from legal theory to legal implementation. If the right is to withstand the pressures of neurotechnology and algorithmic influence, its future cannot rest solely on doctrinal clarity. It must be rendered actionable through concrete regulatory strategies.

²⁷⁹ Ibid

²⁸⁰ Francis L, Francis J. Non-ideal Theory and Protecting Freedom of Thought

²⁸¹ Ibid

²⁸² Ibid

²⁸³ A. Wong, 'Germany Antisemitism Tracking Group Reports 2,480 Antisemitism Incidents in 2022', *Jurist*.

²⁸⁴ Christopher Phiri, 'The Right to Freedom of Thought in Zambia' in Chapter 14. In: O'Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025

²⁸⁵ Farahany (2023)

6.2 Regulatory and Policy Reforms

While the right to freedom of thought may not require the formulation of new human rights, it does demand far more robust legal and institutional infrastructures than the one currently existing. If freedom of thought is to remain a living, enforceable principle, it must be translated into statutory frameworks, algorithmic accountability mechanisms, and proactive policy instruments. This section therefore explores how the right to freedom of thought can be operationalised in practice, through coordinated reforms at the national and international levels, and by placing enforceable ethical obligations on the private sector, especially the technology companies developing tools capable of influencing or intruding upon our mental lives.

6.2.1 State and International Duties in Safeguarding Freedom of Thought

Under international human rights law, States bear the primary responsibility to safeguard the right to freedom of thought against both direct interference and third-party harms. Article 2(1) of the ICCPR obliges States to “respect and ensure” the rights enshrined within it, while Article 2(3) mandates effective remedies for violations.²⁸⁶ In practice, this means that States are not only prohibited from violating the right to freedom of thought themselves but are also required to legislate protections against private sector infringements, particularly those enabled by digital and neurotechnological actors.

If States take seriously these obligations, both positive and negative, freedom of thought commissions could be created at the national level, as independent oversight bodies, bringing together legal experts, neuroscientists, ethicists, and technologists.²⁸⁷ According to Alegre, these commissions would be tasked with issuing certifications for technologies that meet cognitive safety standards.²⁸⁸ Their missions would be to evaluate the impact of public and private technological initiatives on the right to freedom of thought, and to establish policy benchmarks to track developments in algorithmic and neuro-influence. Their function would not only be reactive but anticipatory, enabling law to stay ahead of rapidly evolving cognitive risks.

²⁸⁶ UN General Assembly, International Covenant on Civil and Political Rights, 16 December 1966, Articles 2(1) and 2(3).

²⁸⁷ Alegre, S. (2021)

²⁸⁸ Ibid

In addition to their obligation to prevent direct violations, States may also carry a broader and more systemic positive obligation to create an enabling environment for freedom of thought.²⁸⁹

As suggested in the UN Special Rapporteur's report on freedom of thought and belief, this holistic responsibility entails regulating the underlying architecture of the digital environment that facilitates manipulation.²⁹⁰ Under this positive aspect of the right to freedom of thought, governments have the duty to give their citizens tools and time for thought²⁹¹, as well as the obligation to address opaque data practices, algorithmic content curation, and the use of AI in shaping public discourse.²⁹² Keese and Leiser argue that such obligations demand both structural reform and normative foresight, especially given the link between freedom of expression and mental autonomy. Therefore, States must not only enact protections but also dismantle power asymmetries, such as the concentration of influence in a handful of digital gatekeepers, that threaten the plurality of thought.²⁹³

At the international level, the UN Special Rapporteur on freedom of religion or belief called for greater doctrinal clarity through a General Comment under the ICCPR, proposing the establishment of a dedicated Special Procedure on cognitive rights within the UN Human Rights Council, modelled after existing mandates on freedom of expression or privacy.²⁹⁴ This mechanism could investigate right to freedom of thought related violations, issue urgent appeals, and serve as a focal point for doctrinal development.

Moreover, existing digital rights frameworks, such as data protection, mental health law, and consumer protection, should be systematically reviewed to ensure alignment with freedom of thought principles.²⁹⁵ In the European context, the Council of Europe's Guide to Human Rights for Internet Users ought to be revised to explicitly address the cognitive implications of algorithmic influence, surveillance capitalism, and neurotechnologies.²⁹⁶ The GDPR's Article 22, which limits automated decision-making, could also be extended or interpreted to encompass protections against deep behavioural inference, especially where such practices

²⁸⁹ Keese N, Leiser MR. Online Manipulation as a Potential Interference with the Right to Freedom of Thought. In: O'Callaghan P, Shiner B, eds. *The Cambridge Handbook of the Right to Freedom of Thought*. Cambridge Law Handbooks. Cambridge University Press; 2025:321-334.

²⁹⁰ Ahmed Shaheed (2021)

²⁹¹ McCarthy, J. (2023)

²⁹² Keese N, Leiser MR. Online Manipulation as a Potential Interference with the Right to Freedom of Thought.

²⁹³ Ibid

²⁹⁴ Ahmed Shaheed (2021)

²⁹⁵ Farahany (2023)

²⁹⁶ O'Callaghan, P., Cronin, O., Kelly, B. D., Shiner, B., Walmsley, J., & McCarthy-Jones, S. (2023). The right to freedom of thought: an interdisciplinary analysis of the UN special rapporteur's report on freedom of thought. *The International Journal of Human Rights*, 28(1), 1–23.

interfere with mental integrity.²⁹⁷ Such revisions would not constitute novel rights creation but would instead represent the practical institutionalisation of the right to freedom of thought, which is essential for legal coherence and regulatory force.

Furthermore, the UN Guiding Principles on Business and Human Rights, although not binding in the formal sense, affirm that States must regulate private entities to ensure compliance with international norms.²⁹⁸ This soft law framework can be made effective through binding national legislation. Likewise, the OECD's 2019 Recommendation on Responsible Innovation in Neurotechnology calls on all actors to respect "cognitive liberty," understood as the right to mental self-determination.²⁹⁹ These instruments stress the urgent need for ethical and rights-based governance of technologies that interact with, extract from, or alter mental processes.

While State duties are critical, the reality is that corporations, especially digital platforms and neurotech developers, are often the most potent forces shaping mental environments. These actors design and deploy technologies that structure how people attend, choose, believe, and feel.³⁰⁰ The law must respond not only by enforcing transparency and consent but by intervening in the architecture of technological design itself.

6.2.2 Corporate Accountability and the Use of Techno-Regulation

One promising strategy is the use of techno-regulation, an approach where normative principles are embedded directly into technical systems.³⁰¹ In this model, platforms would be required to implement interface features that slow decision-making, reduce impulsivity, or offer time-delayed choices when cognitive or emotional manipulation is involved. A familiar example are speed bumps, designed to slow down impulsive actions and regulate drivers conduct.³⁰² In cognitive terms, this translates into features like mandatory wait times before publishing emotional posts, or default modes that delay targeted advertising. These "autonomy-

²⁹⁷ McCarthy, J. (2023)

²⁹⁸ UNHRC, Guiding Principles on Business and Human Rights, A/HRC/17/31, 2011.

²⁹⁹ OECD, Recommendation on Responsible Innovation in Neurotechnology, 2019

³⁰⁰ R. Epstein, & R.E. Robertson, (2015)

³⁰¹ Van den Berg, B., and Leenes, R. E. (2013). "Abort, retry, fail: scoping techno-regulation and other techno-effects," in *Human Law and Computer Law: Comparative Perspectives*, eds M. Hildebrandt and J. Gaakeer (Heidelberg: Springer)

³⁰² Hartswood, M., Grimpe, B., Jirotko, M., & Anderson, S. (2014). Towards the ethical governance of Smart Society. In D. Miorandi et al. (Eds.), *Social Collective Intelligence*.

supportive defaults,” as Alegre describes them, can mitigate the exploitative logic of surveillance-based design.³⁰³

The UN Special Rapporteur has further called for digital platforms to support independent human rights impact assessments, particularly concerning neurodata.³⁰⁴ Firms that collect or process neurodata should be legally obligated to publish transparency reports outlining how they address cognitive rights risks, the challenges encountered, and the measures adopted in response. These safeguards should be preconditions for market entry.³⁰⁵ In the case of neurotechnology specifically, manufacturers ought to be evaluated by an independent regulatory body capable of assessing whether their tools expose users to risks of cognitive interference, manipulation, or unintended mental inference.³⁰⁶ Such measures are not just technical fixes, they signal whether a society considers the protection of inner freedom to be a civic and democratic imperative.

Beyond overt neuro-invasive practices, a subtler but equally concerning threat to the right to freedom of thought lies in the systemic manipulation of information ecosystems.³⁰⁷ Algorithmic content delivery shapes not only what individuals see, but how they think. As developed in a previous chapter, platforms curate feeds in ways that often entrench ideological polarisation, fuel emotional volatility, and reduce exposure to epistemic diversity.³⁰⁸ If left unregulated, such systems risk hollowing out the cognitive preconditions of independent thought.

Thomas Christiano argues that a digitally mediated democracy must guarantee epistemic fairness.³⁰⁹ This implies that platforms should be obliged to design algorithms that foster exposure to diverse viewpoints, especially in politically sensitive domains. Legal analogues can be found in the mid-20th century U.S. Fairness Doctrine, which required broadcast media to present balanced perspectives on controversial issues.³¹⁰ A modern version tailored to digital architecture could mandate algorithmic pluralism in political or civic content delivery.

Complementary to this, platforms should be required to provide users with real-time alerts when content has been flagged as cognitively manipulative.³¹¹ This includes instances where

³⁰³ Alegre, S. (2021)

³⁰⁴ *ibid*

³⁰⁵ Van den Berg, B., and Leenes, R. E. (2013)

³⁰⁶ McCarthy-Jones (2019)

³⁰⁷ R. Epstein, & R.E. Robertson (2015)

³⁰⁸ Nita Farahany, *The Battle for Your Brain*, 2023

³⁰⁹ Christiano, T. (2019)

³¹⁰ Stefon, M. (2025, May 24). *fairness doctrine*. Encyclopedia Britannica.

³¹¹ Paul, C., & Reininger, H. (2021, July 22). *Platforms should use algorithms to help users help themselves*. Carnegie Endowment for International Peace.

emotional targeting is used to override reflective reasoning or where filter bubbles are engineered to exploit confirmation bias.³¹² Such interventions must be carefully calibrated to avoid undue interference with freedom of expression. According to the authors of this idea, the goal is not to prescribe what people should believe but to ensure that the conditions for thinking freely are preserved.³¹³ Regulatory authorities must walk a line between enabling mental autonomy and respecting the expressive rights of both platforms and users.

Furthermore, despite increasing awareness of manipulation and profiling, the regulatory system continues to rely heavily on user consent as a form of cognitive safeguard. Yet this reliance is largely illusory.³¹⁴ As scholars point out, individuals routinely agree to terms they do not read or understand, and even when read, the predictive uses of their data are constantly evolving and largely inscrutable.³¹⁵ This renders consent performative rather than protective.

This consent illusion is part of a larger manipulation mechanism that Zuboff calls surveillance capitalism.³¹⁶ In this system which also operates on the logic of prediction, data is modelled, inferred, and leveraged to shape future behaviour. She explains that users are not only subjects of observation but become real products of the neuromarket. Their thoughts, preferences, and emotions become both inputs and outputs of cognitive influence.³¹⁷

To address this, regulators must raise the threshold for what constitutes informed consent in the context of mental privacy.³¹⁸ Platforms should be legally required to offer real, user-friendly opt-in mechanisms, supplemented by warnings for high-risk processing activities.³¹⁹ Key interactions, especially those involving emotional response prediction or neurodata inference, should be subject to time-delay safeguards, offering users the chance to pause, review, and reconsider before engaging.³²⁰

But even robust consent cannot justify all types of mental inference. Some intrusions must be categorically prohibited, particularly where they target core beliefs, political ideology, or personal identity.³²¹ This aligns with the concept of intellectual privacy, which protects the

³¹² Paul, C., & Reininger, H. (2021, July 22).

³¹³ Ibid

³¹⁴ Farahany (2023)

³¹⁵ Ibid

³¹⁶ Zuboff (2019)

³¹⁷ Ibid

³¹⁸ Alegre, S. (2017)

³¹⁹ European Commission. (n.d.). The Digital Services Act: Impact on platforms. European Commission.

³²⁰ Ibid

³²¹ Farahany (2023)

formative processes of thought from external surveillance or manipulation.³²² In this sense, privacy, by acting as a barrier to prediction, which is central to surveillance capitalism, becomes a barrier to efficiency of the neuromarket.

The threats to the right of freedom of thought in the digital and neurotechnological age are manifold and evolving. Protecting this right will require more than ethical argument or doctrinal revision, it will require a re-engineering of the regulatory and institutional landscape. This is not about restraining technological innovation, it is about directing it toward democratic ends. Without enforceable safeguards, we risk normalising cognitive interference as a feature of modern life rather than recognising it as a violation of our most essential human right.

6.3 Digital Literacy and Public Awareness

Public discourse is central to resolving this issue. While legal frameworks form the foundational bedrock for the protection of the right to freedom of thought, its scope and status should not be left to courts, technologists, or policymakers alone.³²³ Instead, the law must be complemented by a multi-tiered regulatory and ethical infrastructure that includes academic institutions, ethical councils, and civil society organisations in order to facilitate collective reflection on what kinds of cognitive influence society is willing to deem illegitimate.³²⁴ The challenge is not only to preserve freedom of thought as a fundamental right, but to animate it as a shared normative commitment.³²⁵

To support this collective reflection, citizens must be equipped with the tools to understand the digital environment and defend themselves against thought manipulation, an effort that requires sustained education in critical thinking across all stages of life, with a particular emphasis on children, whose early empowerment is vital to safeguard both their mental autonomy and the future of democratic society.³²⁶

³²² Richards, N. (2015)

³²³ Ibid

³²⁴ Ibid

³²⁵ Alegre, S. (2021)

³²⁶ Ibid

6.3.1 The Role of Civil Society in Building Digital Resilience

If freedom of thought is to become a meaningful and lived right in the digital age, it must be reinforced from below, not just protected by law but actively cultivated through public empowerment. One of the most effective ways to achieve this is by enhancing political and informational power among citizens, particularly among those most vulnerable to cognitive manipulation.³²⁷ Empowering individuals to think critically and recognise subtle forms of influence requires addressing the deep asymmetries of information and power that characterise today's digital landscape.³²⁸

To mitigate these asymmetries, investment and support in civil society is crucial. Grassroots initiatives, civic education programmes, and union-led media literacy campaigns all contribute to building a more informed and resistant public.³²⁹ Policies should support civil society organisations that deliver critical digital education and training, especially in marginalised or underrepresented communities.³³⁰

When States fall short in safeguarding freedom of thought, civil society steps in to fill the gap by raising public awareness and fostering digital literacy, ensuring that individuals have the tools to recognise and resist thought manipulation.³³¹ Digital literacy is thus understood as “the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship.”³³² Independent fact-checkers and media watchdogs, for instance, serve a gatekeeping function by applying standards in order to distinguish reliable media from untrustworthy sources.³³³ Following the “Michelin model”,³³⁴ they can label, index and rank information on the basis of its veracity and trustworthiness, helping online users to navigate in a fragmented and manipulated information space. Massive awareness-raising campaigns, media literacy and fact checking trainings are additional tools which can be used to build mental autonomy and manipulation resistance across citizens.³³⁵

³²⁷ Christiano (2022)

³²⁸ Jeangène Vilmer, J.-B., Escorcía, A., Guillaume, M., & Herrera, J. (2018).

³²⁹ Richards (2015)

³³⁰ Ibid

³³¹ Jeangène Vilmer, J.-B., Escorcía, A., Guillaume, M., & Herrera, J. (2018).

³³² UNESCO (2018). *Global Education Monitoring Report: Migration, displacement and education, building bridges, not walls*. Paris: UNESCO.

³³³ Ibid

³³⁴ Clint Watts and Andrew Weisburd, “Can the Michelin Model Fix Fake News?” *The Daily Beast*, 22 January 2017.

³³⁵ Alegre (2021)

Several countries offer instructive examples. Sweden has introduced digital literacy into its national curriculum since 2018, training primary school pupils to understand the basics of programming and assess reliable information.³³⁶ Italy has implemented fact-checking courses in high schools to help students recognise and counter disinformation.³³⁷ Such early interventions are essential not only to protect children as a particularly vulnerable group but also to embed critical thinking as a lifelong civic habit.

Digital literacy in this context must go beyond privacy warnings and password security. It should encompass how algorithms infer beliefs, how emotional targeting is used in persuasive design, and how neural patterns can be predicted or influenced through behavioural data.³³⁸ Civic education should position freedom of thought not only as a right to be protected, but as a faculty to be cultivated.³³⁹ If the online environment is designed to bypass deliberation and monetise attention, mental autonomy will remain purely theoretical. States must therefore sponsor and coordinate initiatives that teach digital resilience, critical thinking, and informational self-awareness, especially for communities most at risk of surveillance, exploitation, or marginalisation.³⁴⁰

Public consultations involving civil society actors, vulnerable communities, human rights bodies, and technology companies can help design safeguards that reflect a broader societal consensus on the boundaries of permissible cognitive influence.³⁴¹ These dialogues are essential for translating abstract legal rights into practical protections.

Moreover, legal mobilisation by civil society can be an effective instrument to defend freedom of thought violations. Collective actions or strategic litigation based on the right to equality, access to information, protection against disinformation, hate speech, propaganda and data protection, in conjunction with freedom of thought can address systemic harms.³⁴² Civil society organisations, trade unions, or consumer rights groups can initiate such actions,³⁴³ as proven in

³³⁶ Jeangène Vilmer, J.-B., Escorcia, A., Guillaume, M., & Herrera, J. (2018).

³³⁷ Christopher Livesay, “Italy Takes Aim At Fake News With New Curriculum For High School Students,” NPR, 31 October 2017; and interviews conducted in Rome on 30th November 2017.

³³⁸ Wodajo, K. (2025). Realising the Societal Dimensions of the Right to Freedom of Thought in the Digital Age through Strategic Litigation. In P. O’Callaghan & B. Shiner (Eds.), *The Cambridge Handbook of the Right to Freedom of Thought* (pp. 363–376).

³³⁹ Ibid

³⁴⁰ Alegre (2021)

³⁴¹ Christiano (2022)

³⁴² Bublitz C, Chandler J, Ienca M. Human–Machine Symbiosis and the Hybrid Mind: Implications for Ethics, Law and Human Rights. In: Ienca M, Pollicino O, Liguori L, Stefanini E, Andorno R, eds. *The Cambridge Handbook of Information Technology, Life Sciences and Human Rights*. Cambridge Law Handbooks. Cambridge University Press; 2022:286-303.

³⁴³ Ibid

the Meta Platforms Ireland case before the CJEU, where a class action pursued claims relating to data use and consent on behalf of affected users.³⁴⁴

No legal or corporate reform can be effective unless citizens are equipped to recognise threats to their own mental autonomy.³⁴⁵ Therefore, the UN Special Rapporteur on freedom of religion or belief calls for a public strategy to “create an enabling environment” for the right to freedom of thought.³⁴⁶ This includes fostering public understanding, especially for children, of how digital systems can interfere with cognition.

6.3.2 The Urgent Need to Safeguard Children’s Freedom of Thought

As digital technologies increasingly shape cognition and behaviour, safeguarding the freedom of thought of children emerges as a normative and democratic imperative.³⁴⁷ Their cognitive development today will determine the degree to which they can resist manipulation, engage critically with information, and meaningfully participate in civic life tomorrow.³⁴⁸ Without early interventions, children risk growing into adults who have never fully developed the mental autonomy necessary for democratic citizenship. In this light, protecting the freedom of thought of children is not merely a matter of legal obligation but a long-term investment in human rights and democratic resilience.³⁴⁹

The UN Special Rapporteur on freedom of religion or belief insists that education is central to this task.³⁵⁰ He notes that according to the Committee on the Rights of the Child, the right to education “draws upon, reinforces, integrates and complements”³⁵¹ freedom of thought. It enables children to acquire the cognitive skills needed to critically assess their environment, guard against manipulative influence, and cultivate independent judgment.³⁵² In fact, the Human Rights Committee has treated restrictions on access to education or information as

³⁴⁴ *Meta Platforms Ireland Limited v. Brundesverband*, Case C-319/20, 2022, CJEU, ECLI:EU:C:2022:322 (henceforth: Case C-319/20, *Meta Platforms Ireland*).

³⁴⁵ O’Callaghan, P., Cronin, O., Kelly, B. D., Shiner, B., Walmsley, J., & McCarthy-Jones, S. (2023). The right to freedom of thought: an interdisciplinary analysis of the UN special rapporteur’s report on freedom of thought. *The International Journal of Human Rights*, 28(1), 1–23.

³⁴⁶ Ahmed Shaheed (2021)

³⁴⁷ *Ibid*

³⁴⁸ Alegre (2021)

³⁴⁹ *Ibid*

³⁵⁰ Ahmed Shaheed (2021)

³⁵¹ Committee on the Rights of the Child, General Comment No. 25 on Children’s Rights in Relation to the Digital Environment, CRC/C/GC/25 (2021) §6

³⁵² UNESCO. (2016). A teacher’s guide on the prevention of violent extremism. United Nations Educational, Scientific and Cultural Organization.

coercive acts that may violate Article 18 of the ICCPR,³⁵³ and as a former ECtHR Judge noted, “every person who is ill-informed cannot think freely.”³⁵⁴ The same logic applies even more forcefully to children, whose mental autonomy is still in formation, placing them among the first victims of online manipulation.³⁵⁵

As a particularly vulnerable group, they deserve heightened protection under human rights law.³⁵⁶ The ECtHR has consistently acknowledged their specific vulnerability, and underscored States’ duty to provide enhanced protections for them.³⁵⁷ This vulnerability stems not just from their age or dependency, but from scientific evidence about cognitive development.³⁵⁸ Children’s increased neuroplasticity, especially during early stages of life, renders them more susceptible to subtle manipulative techniques such as algorithmic filtering, emotional targeting, and immersive persuasive design.³⁵⁹

This concern has been explicitly acknowledged by the UN Committee, which in General Comment No. 25 (2021) urged States to identify and prohibit digital practices that “manipulate or interfere with” children’s thoughts, including “automated or information filtering systems” that may shape children’s emotions, behaviour, and opportunities.³⁶⁰ The Committee emphasised that automated systems using emotional analytics or behavioural inference may intrude upon the child’s mental integrity. In addition to biological and developmental vulnerabilities, the Committee called attention to situational vulnerability, which arises from power and information asymmetries embedded in the digital environment. These asymmetries allow platforms and advertisers to exploit children’s data in ways that can deeply influence their beliefs, values, and choices before they are even aware of it.

Real-world examples underscore the urgency of this concern. A class action lawsuit in the United States, brought by the Social Media Victims Law Center, alleges that the TikTok algorithm contributed to the deaths of two girls under thirteen who attempted the viral “black-

³⁵³ UN Human Rights Committee. (1993). General Comment No. 22: The right to freedom of thought, conscience and religion (Article 18), CCPR/C/21/Rev.1/Add.4. United Nations. §6

³⁵⁴ Ahmed Shaheed (2021)

³⁵⁵ Human Rights Watch, “How Dare They Peep into My Private Life?”: Children’s Rights Violations by Governments that Endorsed Online Learning during the COVID-19 Pandemic’ (2022), 78.

³⁵⁶ L. Peroni and A. Timmer, ‘Vulnerable Groups’ (2013) 11(4) International Journal of Constitutional Law 1056–1085.

³⁵⁷ A. Limanté, ‘Vulnerable Groups in the Case Law of the European Court of Human Rights’, in A. Limanté and D. Pūraitė-Andriekenė (eds.), *Legal Protection of Vulnerable Groups in Lithuania* (Springer, 2022) p. 30.

³⁵⁸ Ahmed Shaheed (2021)

³⁵⁹ Committee on the Rights of the Child, General Comment No. 25 on Children’s Rights in Relation to the Digital Environment, CRC/C/GC/25 (2021) §62.

³⁶⁰ Ibid

out challenge."³⁶¹ The claim is grounded in design flaws including excessive screen time, addiction-driving algorithms, and a lack of safeguards against exploitative content. The children reportedly experienced behavioural shifts, social withdrawal, disrupted sleep, and increased susceptibility to dangerous suggestions, as a result of their interaction with the platform.³⁶² These cases lay bare the link between digital architecture and psychological harm in children.

Such concerns are not limited to commercial platforms. Several governments are accused of using regulatory powers to limit children's exposure to critical or pluralistic ideas in education.³⁶³ Stakeholders highlight cases of States restricting some educational content that could inhibit critical thinking, such as climate change, or gender issues, sometimes under the guise of cultural or political prerogatives, thereby interfering with the conditions for intellectual pluralism.³⁶⁴ During the COVID-19 pandemic, some regimes reportedly restricted academic freedom or censored public health discourse to suppress dissent.³⁶⁵ Such acts effectively undermine the foundations of critical inquiry and the means for "intellectual self-defence".³⁶⁶

In response, there is a growing consensus that children must be actively taught critical thinking and digital literacy from an early age.³⁶⁷ The goal is not merely to protect them from harm, but to empower them to assess the reliability of information, to resist manipulative techniques, and to preserve their own freedom of thought. This includes instruction on recognising disinformation, identifying reliable sources, and understanding how algorithmic manipulation works.³⁶⁸ Initiatives like the OSCE's Toledo Guiding Principles³⁶⁹ or UNESCO's digital outreach programs³⁷⁰ can already guide schools to teach children how to navigate issues of religion, belief, and promote critical thinking.

Some States have already taken proactive steps. The Swedish digital literacy school program,³⁷¹ or the Italian fact checking course³⁷² mentioned in the previous sub-chapter not only serve an

³⁶¹ Smith et al v. TikTok Inc. Case Number 22STCV21355 (2022).

³⁶² Ibid

³⁶³ Ahmed Shaheed (2021)

³⁶⁴ Ibid

³⁶⁵ Shir-Raz, Y., Elisha, E., Martin, B., Ronel, N., & Guetzkow, J. (2022). *Censorship and Suppression of Covid-19 Heterodoxy: Tactics and Counter-Tactics*. Minerva, 1–27. Advance online publication.

³⁶⁶ Baillargeon, N. (2005). *Petit cours d'autodéfense intellectuelle*. Montréal: Lux Éditeur.

³⁶⁷ Alegre (2021)

³⁶⁸ McCarthy-Jones (2019)

³⁶⁹ OSCE/ODIHR. (2007). *Toledo guiding principles on teaching about religions and beliefs in public schools*. Organization for Security and Co-operation in Europe, Office for Democratic Institutions and Human Rights.

³⁷⁰ UNESCO. (2016). *A teacher's guide on the prevention of violent extremism*. United Nations Educational, Scientific and Cultural Organization.

³⁷¹ Jeangène Vilmer, J.-B., Escorcia, A., Guillaume, M., & Herrera, J. (2018).

³⁷² Christopher Livesay, "Italy Takes Aim At Fake News With New Curriculum For High School Students," NPR, 31 October 2017; and interviews conducted in Rome on 30th November 2017.

educational function but act as a form of preventive human rights protection, developing skills that children will carry into adulthood. However, such educational policies are long-term investments, their full benefits may only become visible once today's children mature into tomorrow's citizens. That makes it all the more urgent to begin now.

At the international level, General Comment No. 25 offers a clear guidance for states to legislate to protect children from the erosion of their freedom of thought.³⁷³ It positions the right to freedom of thought in the digital age as a dynamic right, one that must evolve to confront the technical realities of automated decision-making, predictive analytics, and surveillance capitalism.³⁷⁴ In its consultations with children, the Committee reported that children themselves requested help from teachers, governments, and companies to better navigate online risks.³⁷⁵ Their voices remind us that children are not passive subjects but active forces, capable of engaging with these issues when properly supported. The general comment is the first clear articulation of the right to freedom of thought in the digital age from a UN body.³⁷⁶ According to Alegre, this is the start of a serious debate about how this right should be interpreted in practice in the 21st century.³⁷⁷

Therefore, what is needed is a paradigm shift in how society approaches the right to freedom of thought, moving beyond passive legal protection toward a proactive collective effort to cultivate and embed this right. Companies must implement mental autonomy into their design logic. Schools must teach critical thinking. Governments must support inclusive deliberation. And society must treat freedom of thought not as a luxury of liberal democracies, but as a universal condition of human dignity. In doing so, we give meaning to the right that protects the preconditions of all other rights. For “without freedom of thought, there can be no such thing as wisdom.”³⁷⁸

³⁷³ Convention on the Rights of the Child, 2 March 2021, “General comment No. 25 (2021) on children’s rights in relation to the digital environment”, UN Doc CRC/C/GC/25.

³⁷⁴ O’Callaghan, P., Cronin, O., Kelly, B. D., Shiner, B., Walmsley, J., & McCarthy-Jones, S. (2023).

³⁷⁵ “Our rights in a digital world”, summary report on the consultation of children for the present general comment, pp. 14 and 22.

³⁷⁶ Alegre (2021)

³⁷⁷ Ibid

³⁷⁸ Writing under the pen name of Silence Dogood. Franklin, B. (1722). Silence Dogood, No. 8, published in The New-England Courant, July 9, 1722.

7. CONCLUSION

This thesis set out to answer the critical question: Is the current human rights framework sufficient to protect the right to freedom of thought against the contemporary threats posed by new technologies in the 21st century? Drawing on philosophical, legal, and scientific insights, it has examined the nature of freedom of thought, the mechanisms that undermine it in the digital age, and the legal and normative responses required to safeguard it.

The central finding of this research is clear: the current human rights framework, while normatively robust in principle, is structurally and doctrinally insufficient to respond to the new forms of cognitive interference enabled by digital and neurotechnological developments. The traditional assumption that the mind is an inviolable sanctuary, immune from intrusion, no longer holds in an era where algorithms infer, predict, and shape thought processes without awareness or consent.

From its philosophical foundations, the right to freedom of thought has been conceived as an absolute, internal right, protected not only because of its individual significance but because it underpins all other rights and democratic participation. Yet, contemporary manipulation techniques, such as behavioural microtargeting, emotion-driven recommendation systems, and neural data harvesting, challenge this paradigm by invisibly bypassing rational deliberation and altering mental autonomy. These mechanisms operate below the threshold of consciousness, rendering traditional legal concepts of coercion and consent void.

The legal analysis in this thesis has shown that while freedom of thought is formally recognised in major human rights instruments, it has been historically neglected in practice. The enforcement architecture lacks doctrinal clarity, concrete definitions of thought and manipulation, as well as mechanisms of redress. The right is legally recognised, but practically non-actionable. This leaves individuals exposed to manipulative technologies without recourse or remedy, in clear violation of their mental integrity.

In response to this vacuum, the thesis proposes a reorientation of legal and regulatory strategies. It calls for a shift from a reactive legal defence of freedom of thought to its proactive cultivation, grounded in a multidimensional framework that integrates legal doctrine, ethical foresight, technological standards, civic education, and institutional oversight.

To safeguard the right to freedom of thought, a coordinated and multidimensional effort is essential. This begins with clarifying and operationalising the right itself, through interpretive

tools such as a General Comment under the ICCPR, to delineate what constitutes impermissible cognitive interference in digital and neurotechnological contexts. Such clarification must refine the legal meaning of “thought,” distinguish manipulation from legitimate influence, and set normative limits on persuasive techniques.

Simultaneously, national and international bodies should establish specialised oversight mechanisms, composed of legal, neuroscientific, ethical, and technological experts, to monitor, certify, and regulate technologies with cognitive effects. These institutions would not only set standards but also issue early warnings about emerging threats to mental autonomy.

Complementing this, legislation must require that technology companies embed mental autonomy as a core design principle. Regulatory frameworks should prohibit manipulative features, such as emotional analytics, persuasive defaults, and opaque recommendation systems, especially when targeting children and other vulnerable users, thus promoting a more human rights-centred digital space.

Alongside these regulatory measures, governments must invest in civic education and digital literacy initiatives. These programs are crucial to cultivating critical thinking from an early age and ensuring that all individuals, particularly children and marginalised populations, can identify and resist manipulative tactics. Civil society must also be empowered to contribute meaningfully to this task. Strategic litigation, advocacy, and awareness-raising campaigns led by civil society actors are indispensable, especially in contexts where state action is absent or inadequate.

Finally, regulatory models must shift from reactive to preventive. Rather than waiting for harm to manifest, policymakers must anticipate the potential cognitive risks of emerging technologies. This calls for the adoption of precautionary principles and robust anticipatory evaluations of high-risk systems, ensuring that protections are embedded before the harm is caused.

While this thesis has taken an interdisciplinary approach to assess the normative and legal contours of the right to freedom of thought, it also recognises the limitations of the existing literature. The legal doctrine in this field remains underdeveloped, and much more detailed jurisprudential work is required to establish a fully actionable framework. Future research should prioritise the development of concrete legislative models capable of addressing algorithmic manipulation under the umbrella of the right to freedom of thought. Empirical

studies will be critical in measuring the actual impact of digital systems on users' cognitive autonomy, while comparative legal analysis can illuminate how different jurisdictions interpret and enforce adjacent rights, such as mental integrity and informational self-determination.

Moreover, the growing intersection between neurotechnology and mental autonomy calls for rigorous inquiry, particularly in settings such as education, military applications, and workplaces, where power asymmetries and surveillance risks are profound. A deeper exploration of how early digital exposure affects the long-term development of children's freedom of thought is therefore essential.

Ultimately, freedom of thought must be reimagined as a living right, not a textual safeguard but a collective, cultivated condition of democratic life. As this thesis has argued, the failure to protect mental autonomy in the digital age threatens not only human dignity but the very foundations of democracy. If left unaddressed, the erosion of this right may prove irreversible. But if met with bold legal innovation, ethical regulation, and societal action, it is still possible to reclaim freedom of thought as a cornerstone of human rights in the 21st century.

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