

**To: New Jersey Law Revision Commission**  
**From: Laura C. Tharney, Executive Director**  
**Re: Potential Project Regarding Neurorights**  
**Date: September 11, 2023**

## MEMORANDUM

Earlier this year, Staff was contacted by a former Commission staff member who recommended that the Commission consider working in the area of “neurorights,” which he described as rights that “guarantee persons the rights to their thoughts and protection from intruders, mainly the government.”<sup>1</sup> He characterized the area as “cutting edge” and suggested that it seemed “appropriate for Commission work even if just a ‘study’ or ‘white paper.’”<sup>2</sup>

### Background

What are neurorights? A 2021 paper written by Marcello Ienca titled *On Neurorights*, that is available on the website of the National Institutes of Health, National Library of Medicine, explained that the term “neurorights” refers to a “normative analysis of the ethical-legal challenges in the mind and brain sciences in terms of rights, freedoms, entitlements and associated obligations.”<sup>3</sup> “Neurorights can be defined as the ethical, legal, social, or natural principles of freedom or entitlement related to a person’s cerebral and mental domain; that is, the fundamental normative rules for the protection and preservation of the human brain and mind.”<sup>4</sup>

The Ienca paper asserts that the term “neuroright” “was first introduced by Ienca and Andorno (2017a, b) in April 2017 in an ancillary article to their ethical-legal analysis of human rights in the age of neuroscience and neurotechnology.”<sup>5</sup> Ienca and Andorno analyzed emerging trends in neurotechnology and human rights provisions related to the protection of the human brain and mind contained in existing human rights instruments, such as the United Nation’s Universal Declaration of Human Rights (UDHR) (1948), the European Union’s Charter of Fundamental Rights (2000) and the UNESCO’s Universal Declaration on Bioethics and Human Rights (2005).<sup>6</sup> They concluded that “existing human rights are necessary but may not be normatively sufficient to respond to the emerging issues raised by neurotechnology” and that “neurotechnological

---

<sup>1</sup> Email from John J.A. Burke to Laura C. Tharney, Executive Director, NJLRC (January 26, 2023, 1:34 p.m.) (on file with NJLRC).

<sup>2</sup> Email from John J.A. Burke to Laura C. Tharney, Executive Director, NJLRC (January 27, 2023, 2:17 p.m.) (on file with NJLRC).

<sup>3</sup> Marcello Ienca, *On Neurorights*, National Institutes of Health, National Library of Medicine, Sept 24, 2021, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8498568/> (last visited Sept. 10, 2023).

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

developments and their application” will “force a reconceptualization of certain human rights, or even the creation of new rights to protect people from potential harm.”<sup>7</sup>

Inenca’s 2021 paper discusses the historical background of neurorights, freedom of thought, privacy, “mental integrity,” personal identity, the neurorights conceptually derived from freedom of thought,<sup>8</sup> “ethical corollaries,” policy developments in the area of neurorights, and the future of neurorights.<sup>9</sup>

### Other Recent Developments

In early 2022, the United Nations Educational, Scientific and Cultural Organization (UNESCO) Courier featured an article titled *Chile: Pioneering the protection of neurorights*, which focused on the fact that Chile was poised to become the first country with legislation designed to protect “mental privacy, free will and non-discrimination in citizens’ access to neurotechnology” with the goal of affording “personal brain data the same status as an organ, so it cannot be bought or sold, trafficked or manipulated.”<sup>10</sup>

While legal developments in this area are limited, there is an increasing amount of scholarship and other information available concerning neurorights. A Google search of “neurorights” returned more than 42,000 results and a Google Scholar search returned nearly 700 results. A quick sample of those results includes a number of articles published just in the last few weeks, such as an August 2023 article in *The Atlantic* magazine titled *The Right to Not Have Your Mind Read: Can “neurorights” protect us from the future?* This article briefly discussed some of the available technologies, the issues, and the current state of the law, including a 2011 series of experiments that “pushed mind-reading technology into a new era,” and reports that Chinese companies are currently “using neuromonitoring technology to record the brain activity of high-speed-train conductors and people who execute important functions in nuclear plants.”<sup>11</sup> Another August 2023 article in the journal *Nature* titled *Brain-reading devices allow paralysed people to talk using their thoughts: Two studies report considerable improvements in technologies designed to help people with facial paralysis to communicate*, focused on the use of brain-reading implants and artificial intelligence to translate neural signals into text or words spoken by a synthetic voice.<sup>12</sup>

---

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* (the four are: cognitive liberty, the right to agency and free will, mental freedom, and freedom of thought)

<sup>9</sup> *Id.*

<sup>10</sup> Lorena Guzman H., *Chile: Pioneering the protection of neurorights*, United Nations Educational, Scientific and Cultural Organization, Courier, 2022-1, <https://en.unesco.org/courier/2022-1/chile-pioneering-protection-neurorights> (last visited Sept. 10, 2023).

<sup>11</sup> Ross Anderson, *The Right to Not Have Your Mind Read: Can “neurorights” protect us from the future?*, *The Atlantic*, Aug. 21, 2023, <https://www.theatlantic.com/technology/archive/2023/08/mind-reading-brain-data-interrogation-mri-machines/675059/> (last visited Sept. 10, 2023).

<sup>12</sup> Miryam Naddaf, *Brain-reading devices allow paralysed people to talk using their thoughts: Two studies report considerable improvements in technologies designed to help people with facial paralysis to communicate*, *Nature*, Aug. 23, 2023, <https://www.nature.com/articles/d41586-023-02682->

## ULC and ALI

A preliminary search of the website of the Uniform Law Commission did not reveal any work being done in the area of neurorights. Similarly, it does not appear that The American Law Institute is currently working in this area. An April 25, 2023, news clip on the ALI website indicated that Professor Nita A. Faraheny, of Duke University School of Law, was expected to participate in a panel discussion as a part of the ALI's 100<sup>th</sup> Anniversary Program based on her book *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology*.<sup>13</sup>

## State and Federal Law

A preliminary search of the law of other states (statutes and case law) did not reveal any references to neurorights. A preliminary search of the federal law similarly did not reveal any references to neurorights. A Westlaw search of secondary sources for neurorights, however, revealed 15 articles that include the term, written between 2020 and the present.

## Conclusion

Staff acknowledges that the novelty and developing nature of the work and the technology in this area, and the absence of available guidance, seems to support a Commission determination to refrain from active work at this time. Staff is, however, seeking guidance from the Commission regarding whether the Commission would like to authorize staff to begin some work in the area of neurorights, would like to see additional information before making a decision, or would prefer that Staff not begin work in this area at this time.

---

[7?utm\\_source=Nature+Briefing&utm\\_campaign=6b2507a9c4-briefing-dy-20230824&utm\\_medium=email&utm\\_term=0\\_c9dfd39373-6b2507a9c4-46950855](https://www.nature.com/news/briefing/nature-briefing-dy-20230824?utm_source=Nature+Briefing&utm_campaign=6b2507a9c4-briefing-dy-20230824&utm_medium=email&utm_term=0_c9dfd39373-6b2507a9c4-46950855) (last visited Sept. 10, 2023).

<sup>13</sup> The American Law Institute, News, Articles, <https://www.ali.org/news/articles/battle-your-brain-defending-right-think-freely-age-neurotechnology/> (last visited Sept. 10, 2023).