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**CALIFORNIA PRIVACY PROTECTION AGENCY**

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Date: April 25, 2025

To: California Privacy Protection Agency Board  
(Meeting of May 1, 2025)

From: Maureen Mahoney  
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California Privacy Protection Agency

**Subject: Agenda Item 3 — Legislative Update and Authorization of CPPA Positions on Pending Legislation. SB 44 (Umberg), Brain-computer interfaces: neural data, as amended April 8, 2025**

This bill, authored by Senator Umberg, affords additional privacy protections pursuant to the California Consumer Privacy Act (CCPA) to “neural data,” meaning “information that is generated by measuring the activity of a consumer’s central or peripheral nervous system, and that is not inferred from nonneural information.” Specifically, the bill allows covered businesses, as defined, to use that information only for the purpose that it was collected, and it requires covered businesses to delete the data once that purpose is accomplished.<sup>1</sup> The bill was approved by the Senate Judiciary Committee and is now under consideration by the Senate Appropriations Committee. Because it increases protections with respect to this data, staff recommends a support position on the bill.

## Summary

The California Consumer Privacy Act (CCPA) includes specific notice requirements for businesses, grants new privacy rights to consumers, including the rights to access, delete, correct, and stop the sale and sharing of their personal information. The CCPA also gives consumers the right to direct a business that collects sensitive personal information about the consumer to limit its use of their sensitive personal information to what is necessary to perform the services or provide the goods reasonably expected by an average consumer who requests such goods or services.

The CCPA defines “sensitive personal information” to mean personal information that reveals, among other things, a consumer’s neural data.<sup>2</sup> Neural data is defined in the CCPA to mean “information that is generated by the measurement of the activity of an individual’s central or peripheral nervous systems, and that is not inferred from nonneural information.”<sup>3</sup>

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<sup>1</sup> SB 44 (2025), [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202520260SB44](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202520260SB44)

<sup>2</sup> Civ. Code Sec. 1798.140(ae)(1)(G)(i).

<sup>3</sup> Civ. Code Sec. 1798.140(ae)(1)(G)(ii).

Businesses have corresponding obligations. Businesses that are subject to the CCPA must honor these rights and provide methods by which consumers can exercise these rights. They must also comply with the law's purpose limitation and data minimization rules. This means businesses must limit the collection, use, and retention of personal information to only those purposes that: (1) a consumer would reasonably expect, (2) are compatible with the consumer's expectations and disclosed to the consumer, or (3) purposes that the consumer agreed to, as long as the consent given was not obtained through dark patterns. For all of these purposes, the business' collection, use, and retention of the consumer's information must be reasonably necessary and proportionate to serve those purposes.

This bill allows a covered business to use neural data collected through a brain-computer interface, defined as a system that allows direct communication and control between a person's brain and an external device, only for the purpose for which the neural data was collected. It also requires a covered business to delete neural data collected through a brain-computer interface when the purpose for which the neural data was collected is accomplished.

## Analysis

In recognition of the fact that businesses are already beginning to explore how to leverage the use of neural data into new technologies, neural data was added to the CCPA's definition of sensitive personal information via SB 1223 (Becker, 2024), a bill that the California Privacy Protection Agency (CPPA) supported.<sup>4</sup>

For example, Neuralink is an implantable brain-computer interface that is being developed with the goal of enabling someone to use a computer solely by their brain activity, which could have benefits for those living with quadriplegia. It has already been implanted into one test patient.<sup>5</sup> Brain-computer interfaces developed by other businesses, such as Synchron and BlackRock Neurotech, also have been implanted into a handful of users.<sup>6</sup> While this research has promise, it highlights the importance of strong protections to keep the data secure, as it can reveal not just what a person does, but what they think.<sup>7</sup>

Because of the unique sensitivity of such data, in staff's view, it is appropriate to afford it even greater protections under California law. As this technology develops, there is the risk that these measurements of brain activity can be used to draw inferences about the users' emotions and state of mind.

This bill establishes safeguards by limiting how neural data can be used.

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<sup>4</sup> SB 1223 (2024), [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202320240SB1223](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB1223).

<sup>5</sup> Bill Chappell, *What to know about Elon Musk's Neuralink, which put an implant into a human brain*, NPR (January 30, 2024), <https://www.npr.org/2024/01/30/1227850900/elon-musk-neuralink-implant-clinicaltrial>.

<sup>6</sup> Cassandra Willyard, *Beyond Neuralink: Meet the other companies developing brain-computer interfaces*, MIT Technology Review (April 19, 2024), 2 <https://www.technologyreview.com/2024/04/19/1091505/companies-brain-computer-interfaces/>.

<sup>7</sup> Lara Lewington, Liv McMahon & Tom Gerken, *The man with a mind-reading chip in his brain - thanks to Elon Musk*, BBC News (March 22, 2025), <https://www.bbc.com/news/articles/cewk49j7j1po>.

Importantly, these protections are available to consumers by default, meaning that consumers do not have to take a specific action to enjoy those protections.

## **Recommendation**

Support

## **Public support/opposition**

Per the April 17, 2025 Senate Judiciary Committee bill analysis<sup>8</sup>:

### Support

Oakland Privacy (sponsor)  
Consumer Federation of California  
Science Corporation

### Opposition

None available

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<sup>8</sup> California Senate Judiciary Committee bill analysis at 11 (April 17, 2025),  
[https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill\\_id=202520260SB44](https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=202520260SB44).