

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-12-23

WHEREAS the State of California is a global leader in innovation, research, development, human capital, and entrepreneurship; and

WHEREAS Generative Artificial Intelligence ("GenAI") represents a significant leap forward in technology, by generating novel text, images, and other content, which will transform the way that the State and the world conduct business and serve the public; and

WHEREAS GenAI has the potential to catalyze innovation and the rapid development of a wide range of benefits for Californians and the California economy, such as advances in medicine, wildfire forecasting and prevention, and climate science, and to push the bounds of human creativity and capacity; and

WHEREAS California is leading the world in GenAI innovation and research, and is home to 35 of the world's top 50 Artificial Intelligence ("AI") companies; and

WHEREAS San Francisco and San Jose are dominating this technological revolution, accounting for a quarter of all AI patents, conference papers, and companies globally; and

WHEREAS the State of California endeavors to continue leading the world in the responsible development, adoption, and implementation of new technologies for the benefit of all Californians and the California economy; and

WHEREAS GenAI can enhance human potential and creativity but must be deployed and regulated carefully to mitigate and guard against a new generation of risks; and

WHEREAS the State of California is committed to accuracy, reliability, and ethical outcomes when adopting GenAI technology, engaging and supporting historically vulnerable and marginalized communities, and serving its residents, workers, and businesses in a transparent, engaged, and equitable way; and

WHEREAS the State of California seeks to realize the potential benefits of GenAI for the good of all California residents, through the development and deployment of GenAI tools that improve the equitable and timely delivery of services, while balancing the benefits and risks of these new technologies; and

WHEREAS the California state workforce is vital to California's continued prosperity and the State seeks to harness the potential of GenAI for the benefit of the state government workforce; and

WHEREAS California is home to the University of California, Berkeley, College of Computing, Data Science, and Society and Stanford University's Institute for Human-Centered Artificial Intelligence, which are world-leading research institutions in GenAI; and

WHEREAS the location of these institutions in California provides a unique opportunity for academic research and government collaboration; and

WHEREAS GenAI development is advancing and accelerating at an exponential pace; and

WHEREAS the unprecedented speed of innovation and deployment of GenAI technologies necessitates measured guardrails to protect against potential risks or malicious uses, including but not limited to, bioterrorism, cyberattacks, disinformation, deception,¹ and discrimination or bias;² and

WHEREAS the promise of GenAI requires the creation of a risk-safety ecosystem and the investment of private companies and research institutions to foster talent dedicated to trust and safety in these new frontiers; and

WHEREAS research institutions face significant barriers in accessing the vast amounts of computing power necessary to use GenAI for research and education and there is a need for a public-private effort to overcome such barriers; and

WHEREAS thoughtful, responsive governance at the beginning of a technology's lifecycle can maximize equitable distribution of the benefits, minimize adverse impacts and abuse by bad actors, and reduce barriers to entry into emerging markets; and

WHEREAS the development of GenAI will necessitate united governance on issues of consumer data, financial services, healthcare, and innumerable other areas critical to our society, and my administration looks forward to engaging with the Legislature in furtherance of this aim; and

WHEREAS California is the most populous, diverse state in the nation and a global technology leader uniquely situated to lead the world in responsibly developing, implementing, and governing GenAI, by combining the strengths of California's world-class tech industry, universities, economy, and workforce.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, do hereby issue the following Order to become effective immediately:

IT IS HEREBY ORDERED THAT:

- 1) Within 60 days of issuance of this Order, the Government Operations Agency, the California Department of Technology, the Office of Data and Innovation, and the Governor's Office of Business and Economic Development, in collaboration with other State agencies and departments and their workforce, shall draft a report to the Governor examining the most significant, potentially beneficial use cases for deployment of GenAI tools by the State. The report shall also explain

¹ <https://www.safe.ai/ai-risk#malicious-use>.

² <https://www.whitehouse.gov/ostp/ai-bill-of-rights/algorithmic-discrimination-protections-2/>.

the potential risks to individuals, communities, and government and state government workers, with a focus on high-risk use cases, such as where GenAI is used to make a consequential decision affecting access to essential goods and services. Additionally, the report shall include but not be limited to: risks stemming from bad actors and insufficiently guarded governmental systems, unintended or emergent effects, and potential risks toward democratic and legal processes, public health and safety, and the economy. The report shall be regularly assessed for any significant developments or necessary updates and as appropriate, be done in consultation with civil society, academia, industry experts, and the state government workforce or organizations that represent state government employees.

- 2) No later than March 2024, the California Cybersecurity Integration Center and the California State Threat Assessment Center, both established within the Governor's Office of Emergency Services, and inclusive of the California Department of Technology, the California Military Department, and the California Highway Patrol, shall perform a joint risk analysis of potential threats to and vulnerabilities of California's critical energy infrastructure by the use of GenAI, including those which could lead to mass casualty events and environmental emergencies, and develop, in consultation with external experts as appropriate from civil society, academia, and industry, a strategy to assess similar potential threats to other critical infrastructure. Once this analysis is completed, these agencies shall provide a classified briefing to the Governor and, where appropriate and without divulging classified information, make public recommendations for further administrative actions and/or collaboration with the Legislature to guard against these potential threats and vulnerabilities. These recommendations shall address how to ensure systems are regularly tested and monitored to detect and avoid unintended behavior, and how to ensure they remain under effective human control. At a cadence deemed appropriate by the Governor's Office of Emergency Services, the analysis and public recommendations should be updated to reflect changes to the technology, its applications, and risk management processes and learnings.
- 3) To ensure State government fosters a safe and responsible innovation ecosystem that puts AI systems and tools to the best uses for Californians:
 - a. By January 2024, the Government Operations Agency, the California Department of General Services, the California Department of Technology, and the California Cybersecurity Integration Center, shall issue general guidelines for public sector procurement, uses, and required trainings for use of GenAI, including for high-risk scenarios such as for consequential decisions affecting access to essential goods and services. The guidelines should build on guidance from the White House's Blueprint for an AI Bill of Rights and the National Institute for Science & Technology's AI Risk Management Framework, and shall address safety, algorithmic discrimination, data privacy,

and notice of when materials are generated by GenAI. The Government Operations Agency shall engage and consult with the state government workforce or organizations that represent state government employees, and industry experts, including but not limited to, trust and safety experts, academic researchers, and research institutions, in developing these guidelines. The Government Operations Agency, the California Department of General Services, the California Department of Technology, and the California Cybersecurity Integration Center shall thereafter evaluate at a cadence they deem appropriate any need to revise the guidelines and establish a consultative process by which to do so with civil society, academia, industry experts, and the state government workforce or organizations that represent state government employees. Nothing in this Order shall be construed to allow the application of state funds by localities in the procurement of GenAI technologies.

- b. By July 2024, the Government Operations Agency, the California Department of Technology, and the Office of Data and Innovation, in consultation with other State agencies and departments, shall develop guidelines for State agencies and departments to analyze the impact that adopting a GenAI tool may have on vulnerable communities, including criteria to evaluate equitable outcomes in deployment and implementation of high-risk use cases. These guidelines and criteria shall inform whether and how a State agency or department deploys a particular GenAI tool. The Government Operations Agency shall engage and consult with the state government workforce or organizations that represent state government employees, and industry experts, including but not limited to, trust and safety experts, academic researchers, and research institutions, in developing these guidelines. The Government Operations Agency, the California Department of Technology, and the Office of Data and Innovation shall thereafter evaluate at a cadence they deem appropriate any need to revise the guidelines and criteria and establish a consultative process by which to do so with civil society, academia, industry experts, and the state government workforce or organizations that represent state government employees.
- c. By January 2025, the Government Operations Agency, the California Department of General Services, and the California Department of Technology shall update the State's project approval, procurement, and contract terms, incorporating analysis and feedback obtained through the processes outlined in 3.a. and 3.b.
- d. In order to assist the Government Operations Agency and the California Department of Technology in these efforts, all agencies and departments subject to my authority shall conduct and submit an inventory of all current high-risk uses of GenAI

within the agency or department to the California Department of Technology, which will administer the inventory. To effectuate this inventory, all agencies and departments shall appoint a senior level management personnel who will be responsible for conducting and reporting the results of the inventory to the California Department of Technology within 60 days of issuance of this Order. The senior management personnel shall be responsible for maintaining the inventory on an ongoing basis.

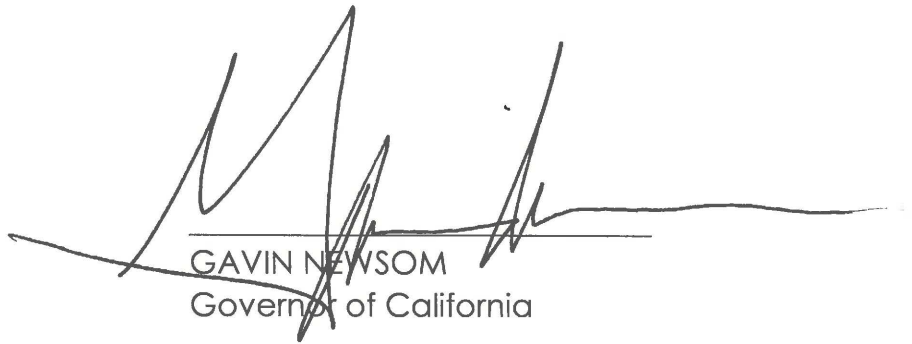
- e. State agencies and departments subject to my authority shall consider procurement and enterprise use opportunities where GenAI can improve the efficiency, effectiveness, accessibility, and equity of government operations consistent with the Government Operations Agency, the California Department of General Services, and the California Department of Technology's guidelines for public sector GenAI procurement.
 - f. By March 2024, the California Department of Technology shall establish the infrastructure to conduct pilots of GenAI projects, including California Department of Technology approved environments, or "sandboxes," to test such projects. These environments will be available to State agencies and departments to help evaluate GenAI tools and services, to further safe, ethical, and responsible implementations, and to inform decisions to use GenAI, consistent with state guidelines.
 - g. By July 2024, all state agencies under my authority shall consider pilot projects of GenAI applications, in consultation with the state workforce or organizations that represent state government employees, and experts as appropriate from civil society, academia, and industry. Under a controlled setting, pilots shall measure 1) how GenAI can improve Californians' experience with and access to government services, and 2) how GenAI can support state employees in the performance of their duties in addition to any domain-specific impacts to be measured by the agency.
- 4) The Government Operations Agency, the California Department of Human Resources, the California Department of General Services, the California Department of Technology, the Office of Data and Innovation, and the California Cybersecurity Integration Center, shall engage with the Legislature and relevant stakeholders, including historically vulnerable and marginalized communities, and organizations that represent state government employees, in the development of any guidelines, criteria, reports, and/or training as directed by this Order.
 - 5) State agencies and departments subject to my authority shall support California's state government workforce and prepare for the next generation of skills needed to thrive in the GenAI economy by:

- a. No later than July 2024, the Government Operations Agency, the California Department of Technology, the California Department of Human Resources, and the Labor and Workforce Development Agency shall make available trainings for state government worker use of state-approved GenAI tools to achieve equitable outcomes, and to identify and mitigate potential output inaccuracies, fabricated text, hallucinations, and biases of GenAI, while enforcing public privacy and applicable state laws and policies. Where appropriate, the California Department of Technology and the California Department of Human Resources shall collaborate with the state government workforce or organizations that represent state government employees, and industry experts, on developing and providing training.
 - b. No later than January 1, 2025, the Government Operations Agency, the California Department of Human Resources, and the Labor and Workforce Development Agency, in consultation with the state government workforce or organizations that represent state government employees, shall establish criteria to evaluate the impact of GenAI to the state government workforce, and provide guidelines on how State agencies and departments can support state government employees to use these tools effectively and respond to these technological advancements.
- 6) The Governor's Office of Business and Economic Development, in consultation with the Government Operations Agency, is directed to pursue a formal partnership with the University of California, Berkeley, College of Computing, Data Science, and Society and Stanford University's Institute for Human-Centered Artificial Intelligence to consider and evaluate the impacts of GenAI on California and what efforts the State should undertake to advance its leadership in this industry. As part of this effort, beginning in the fall of 2023, those agencies are directed to work with the University of California, Berkeley, College of Computing, Data Science, and Society and Stanford University's Institute for Human-Centered Artificial Intelligence to develop and host a joint California-specific summit in 2024, to engage in meaningful discussions and thought partnership about the impacts of GenAI on California and its workforce and how all stakeholders can support growth in a manner that safeguards Californians.
- 7) Legal counsel for all State agencies, departments, and boards subject to my authority shall consider and periodically evaluate for any potential impact of GenAI on regulatory issues under the respective agency, department, or board's authority and recommend necessary updates, where appropriate, as a result of this evolving technology.

IT IS FURTHER ORDERED that, as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have
hereunto set my hand and caused
the Great Seal of the State of
California to be affixed this 6th day
of September 2023.



GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, Ph.D.
Secretary of State