



## **NATIONAL SCIENCE FOUNDATION**

### **Request for Information on the Development of a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan**

**AGENCY:** Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO), National Science Foundation.

**ACTION:** Request for Information.

**SUMMARY:** On behalf of the Office of Science and Technology Policy (OSTP), the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO) welcomes input from all interested parties on how the previous administration's National Artificial Intelligence Research and Development Strategic Plan (2023 Update) can be rewritten so that the United States can secure its position as the unrivaled world leader in artificial intelligence by performing R&D to accelerate AI-driven innovation, enhance U.S. economic and national security, promote human flourishing, and maintain the United States' dominance in AI while focusing on the Federal government's unique role in AI research and development (R&D) over the next 3 to 5 years. Through this Request for Information (RFI), the NITRD NCO encourages the contribution of ideas from the public, including AI researchers, industry leaders, and other stakeholders directly engaged in or affected by AI R&D. Responses previously submitted to the RFI on the Development of an AI Action Plan will also be considered in updating the National AI R&D Strategic Plan.

**DATES:** Interested persons are invited to submit comments on or before 11:59 p.m. (ET) on May 29, 2025.

**ADDRESSES:** Submit your comments, identified by Docket ID No. NSF-2025-OGC-0001, at <https://www.regulations.gov>. For comments submitted at Regulations.gov,

follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov.

Email: Docket ID No. NSF-2025-OGC-0001

*Instructions:* Response to this RFI is voluntary. Each individual or institution is requested to submit only one response. Submissions should ideally be 2 pages but not exceed 10 pages in 12 point or larger font, with a page number provided on each page. Responses must include the name of the person(s) or organization(s) filing the comment and the following statement: "This document is approved for public dissemination. The document contains no business-proprietary or confidential information. Document contents may be reused by the government in developing the 2025 National AI R&D Strategic Plan and associated documents without attribution." Responses to this RFI are subject to release under the Freedom of Information Act and may be posted online at <https://www.nitrd.gov/>. Therefore, we request that no business proprietary information, copyrighted information, or sensitive personally identifiable information be submitted as part of your response to this RFI.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. Responders are solely responsible for all expenses associated with responding to this RFI.

**FOR FURTHER INFORMATION CONTACT:** Faisal D'Souza at *ostp-ai-rd-sp-rfi@nitrd.gov* or (202) 459-9674. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday, except for U.S. Federal Government holidays.

**SUPPLEMENTARY INFORMATION:**

The Federal government plays a critical role in supporting AI R&D in areas where private sector investment is insufficient or where national interests require government leadership. Many foundational breakthroughs in AI, such as neural networks and reinforcement learning, originated from government-funded research before becoming

commercially viable. Industry tends to focus on near-term applications that promise immediate returns, while critical areas such as AI for national security, public infrastructure resilience, and scientific discovery often require long-term investment with uncertain commercial payoffs. By prioritizing areas of foundational research, the government plays a vital role in maintaining America's technological leadership and ensuring that AI development serves broad public interests rather than being driven solely by near-term market forces.

On January 23, 2025, President Trump signed Executive Order 14179 (Removing Barriers to American Leadership in Artificial Intelligence) to establish U.S. policy for sustaining and enhancing America's AI dominance in order to promote human flourishing, economic competitiveness, and national security. This Order directs the development of an AI Action Plan to advance America's AI leadership, in a process led by the Assistant to the President for Science and Technology, the White House AI and Crypto Czar, and the National Security Advisor. The 2025 National AI R&D Strategic Plan will be aligned with the AI Action Plan.

The 2025 National AI R&D Strategic Plan will identify the Federal strategic priorities for AI research and development, with particular attention on areas that industry is unlikely to address. These areas might need prioritization by government because they serve national interests but may not provide immediate commercial returns, making them less attractive for private-sector funding. Respondents to this RFI are encouraged to articulate research needs and development challenges in AI that the Federal government should prioritize over the next 3 to 5 years, along with ideas for novel mechanisms for research partnerships with industry and/or academia.

Examples of areas in which Federal AI R&D investments could be prioritized may include, but are not limited to: fundamental advances in AI algorithms, architectures, mathematical foundations and computing paradigms that may not have immediate commercial applications, aiming at maintaining U.S. AI leadership into the future; high-risk, high-reward AI research relevant for domains critical to future U.S. competitiveness,

including human-AI interaction; research on next-generation AI hardware and architectures beyond deep learning; AI research for accelerating fundamental scientific discovery and technological breakthroughs in areas where private-sector investment is insufficient; advances in AI systems capable of reasoning, adaptability, and robustness in dynamic environments; research into AI standards, security and reliability; AI research for national security and critical infrastructure; advances in agentic and physically embodied AI with strategic competitiveness implications; infrastructure support for the AI research and development community; advances in AI applications in cybersecurity and cyberspace operations beyond those of commercial use; advances in AI for public sector and government applications; and research on AI systems and education supporting American workers and improving workforce productivity. Many other research areas could also be relevant.

Public input in response to this RFI, as well as responses previously submitted to the RFI on the Development of an AI Action Plan (90 FR 9088), will inform OSTP and NITRD NCO in developing the 2025 National Artificial Intelligence Research and Development Strategic Plan to reflect the Administration's commitment to fostering an environment where AI can thrive as a driver of economic growth, technological advancement, human flourishing, and national security.

Submitted by the National Science Foundation in support of the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO) on April 24, 2025.

(Authority: 42 U.S.C. 1861, et seq.)

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