

PUBLIC SUBMISSION

Received: May 29, 2025 Tracking No. mb9-odvu-jhyb Comments Due: May 28, 2025 Submission Type: Web

Docket: NSF-2025-OGC-0001
NITRD_FRDOC_0001

Comment On: NSF-2025-OGC-0001-0001
Request for Information: Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan

Document: NSF-2025-OGC-0001-DRAFT-0213
Comment on FR Doc # 2025-07332

Submitter Information

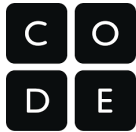
Organization: Code.org

General Comment

See attached file(s)

Attachments

Code.org Response to White House RFI on AI R and D



May 29, 2025

Mr. Faisal D'Souza
NCO
2415 Eisenhower Avenue
Alexandria, VA 22314

Transmitted via [regulations.gov](https://www.regulations.gov) re: Docket ID No. NSF-2025-OGC-0001

Dear Mr. D'Souza:

[Code.org](https://code.org) submits the following in response to the April 29, 2025, Office of Science and Technology Policy (OSTP) and the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO) request for information (RFI) 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.

Code.org and its partners believe that the safe, effective and responsible use of AI in schools comes from connecting the discussion of teaching with AI to teaching about AI. Given the emerging nature of AI and its increasing role in daily life, the workplace and education, any federal R&D strategy must quickly support investigations into how best to teach K-12 students about AI and its reliance on computer science. Similarly, we must learn how to best prepare the existing teaching workforce to teach about and use AI to produce learners ready to understand and use AI. Please consider our views on this crucial topic as you develop your Plan.

Code.org appreciates the opportunity to respond to the Request for Information regarding the 2025 National AI R&D Strategic Plan. We urge the Federal government to prioritize two vital but underfunded areas of AI research that are essential to America's long-term technological leadership and economic competitiveness:

1. Research on How Best to Teach AI to K–12 Students

As AI becomes a transformative force in the global economy, ensuring that future generations understand its principles and capabilities is a national imperative. Yet today, we lack sufficient evidence-based research into how to teach AI effectively to all K–12 level students. We recommend federally funded R&D in areas such as:

- Age-appropriate AI pedagogy: What methods are most effective at various grade levels?
- Curriculum development: How can foundational AI concepts—such as data literacy, machine learning, and ethical implications—be integrated into existing subjects?
- Assessment and evaluation: How do we measure AI understanding and computational thinking across age groups?

Without this foundational research, private-sector-driven AI literacy programs risk being uncoordinated, inaccessible to all students nationwide, and pedagogically unsound. Government leadership is essential to set standards and produce generalizable insights that support educators and schools nationwide.

2. Research into How AI Can Be Used in K–12 Classrooms to Support Teachers and Improve Student Learning

The integration of AI into education holds great promise for:

- Personalized learning at scale
- Supporting teachers through intelligent tutoring systems and AI-assisted lesson planning
- Identifying and mitigating student learning gaps
- Enhancing accessibility for students with disabilities

However, these applications require careful study to ensure they are effective, accessible to all, and safe—especially for children. The commercial market may focus on short-term EdTech products, but only government-led R&D can ensure that:

- AI tools are aligned with public education goals, not just commercial incentives
- Data privacy and ethical use are upheld in educational contexts
- Teachers’ professional judgment is augmented, not undermined, by AI systems

We encourage the development of testbeds, public-private research partnerships, and open datasets specifically for studying AI in educational settings.

Suggested Research Mechanisms

We propose:

- Federal grant programs for longitudinal studies on AI pedagogy in varied K–12 environments
- NSF-led research centers focused on “AI in Education” and “AI Education for All”
- Joint AI-education research initiatives between the Department of Education, NSF, and OSTP
- Public-private partnerships that incentivize open-source AI curriculum and tools

Conclusion

Investing in R&D at the intersection of AI and K–12 education serves broad national interests: it builds the future workforce, ensures widespread opportunity in the AI age, and maintains U.S. global competitiveness. Yet these areas are unlikely to attract sufficient private-sector investment in the near term. Code.org strongly urges investments in AI education and classroom integration in the National AI R&D Strategic Plan.

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About Code.org

Code.org® is an education innovation nonprofit dedicated to the vision that every student in every school has the opportunity to learn computer science and artificial intelligence as part of their core K-12 education.

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