



Middle East Institute

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March 11, 2025

Subject: Response to RFI on the Development of an Artificial Intelligence Action Plan

To Whom It May Concern:

On behalf of the Middle East Institute (MEI), we are pleased to respond to the National Science Foundation's (NSF) and Office of Science and Technology Policy's (OSTP) request for information (RFI) regarding the "Development of an Artificial Intelligence Action Plan." MEI acknowledges the pivotal role of AI in shaping global technology and geopolitics, and we commend the Trump Administration for its dedication to ensuring American leadership in this transformative domain.

In support of the objectives set forth in Executive Order (EO) 14179, MEI offers the following recommendations to solidify the United States' position as the global leader in AI innovation while addressing critical ethical, regulatory, and infrastructural imperatives. Our recommendations emphasize five strategic priorities:

- **Regulations and Export Controls:** MEI suggests an AI governance framework that balances innovation and security. It would use a Tier 1.5 classification to boost partnerships with rising AI powers (e.g., Saudi Arabia, Qatar, and the UAE). This framework builds on the AI Diffusion Framework for standards and cooperation.
- **Energy and Infrastructure:** MEI urges energy policy reform to meet AI's energy needs, modernizing NEPA for faster clean energy approvals (e.g., geothermal, nuclear, solar). We also propose Innovation Zones in states such as Nevada, Texas, and Arizona with pre-approved permits to speed up AI data center deployment.
- **Research and Development (R&D):** MEI calls for sustained R&D investment to lead in AI, including a National AI Research Institute for Third Wave AI (machine learning + symbolic reasoning). We seek stronger government-industry-academia collaboration.
- **AI Systems and Governance:** MEI supports policies for AI accuracy, explainability, and adaptability, prioritizing autonomous, real-time learning AI to address global challenges and reduce biases.



These recommendations reflect MEI's comprehensive approach to AI development, designed to counter global competitors, notably China, while fostering an environment of innovation and ethical stewardship.

We are grateful for the opportunity to contribute to this vital initiative and welcome further engagement with the administration to promote a responsible and visionary AI policy framework.

Respectfully,

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Roadmap for America's Leadership in AI Artificial Intelligence (AI) Action Plan

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Executive Summary:

The Middle East Institute (MEI) presents a comprehensive proposal for a national strategy designed to secure and enhance the United States' leadership in artificial intelligence (AI). As global competition intensifies, particularly with China's advancements, the U.S. faces significant challenges in maintaining its position at the forefront of AI development. This proposal, grounded in the objectives outlined in Executive Order (EO) 14179, aims to ensure that the U.S. continues to lead in AI innovation while addressing ethical, regulatory, and infrastructure challenges. MEI's recommendations reflect a holistic approach to AI development that spans energy, infrastructure, research and development, and global governance.

Key Policy Areas and Recommendations

1. Regulations and Export Controls:

MEI advocates for the creation of a **Tier 1.5** classification that recognizes the growing strategic partnership between the United States and Gulf states, such as Saudi Arabia, Qatar, and the UAE. This would accommodate their increasing role in global AI development while addressing national security concerns. The proposed framework would balance innovation with security, ensuring continued collaboration on AI governance, development, and export without sacrificing the guardrails imposed by Tier 2. By building on the existing AI Diffusion Framework, this approach would strengthen U.S.-Gulf cooperation, foster common AI standards, and enhance the global competitiveness of both regions.

2. Energy and Infrastructure:

MEI stresses the importance of reforming energy and infrastructure policies to support the vast energy requirements of AI. The U.S. must modernize the National Environmental Policy Act (NEPA) to streamline approvals for clean energy projects, such as geothermal, modular nuclear, and solar power, to fuel AI data centers.

Additionally, MEI advocates for the creation of **Innovation Zones** in strategic locations like Nevada, Texas, and Arizona. These zones would house AI data center clusters, with pre-approved permits to minimize bureaucratic delays and accelerate AI deployment.

3. **Research and Development (R&D):**

To maintain global AI leadership, MEI recommends an aggressive, long-term investment in AI R&D. This includes the establishment of a **National AI Research Institute**, focused on advancing **Third Wave AI**—a hybrid approach combining machine learning with symbolic reasoning. This will ensure that AI systems are not only more effective but also more explainable and reliable, particularly in critical sectors like healthcare. MEI also supports increased collaboration between government agencies, the private sector, and academic institutions to drive high-risk, high-reward AI research.

4. **AI Systems and Governance:**

To ensure that AI systems remain unbiased and socially responsible, MEI recommends policy actions focused on improving the factual accuracy, explainability, robustness, and adaptability of AI models. The U.S. must prioritize developing AI systems that are intellectually autonomous, capable of real-time learning, and able to address complex global challenges. This approach will mitigate the risk of ideological biases and ensure that AI technologies are developed with an eye toward long-term societal benefits.

Introduction

The global race for AI leadership is intensifying, with the United States and China as the primary competitors vying for dominance in this transformative technology. As the geopolitical and economic stakes rise, the U.S. must reassess its approach to AI to ensure its continued leadership and safeguard its strategic interests. At the same time, AI presents unprecedented opportunities for global cooperation, innovation, and societal advancement. The MEI recognizes that AI is not just a technological challenge—it is a geopolitical one, with implications that extend far beyond national borders.

In light of this, MEI presents this report as a strategic framework for the United States to maintain its technological edge in AI while addressing the growing influence of China and other global competitors. The U.S. must align its AI policies with national security interests, economic goals, and ethical standards to stay ahead in the global competition. This report examines key areas of action that the U.S. must take to secure its AI future, including investments in infrastructure, research, and regulatory frameworks.

Drawing on insights from experts and leaders in the field, the report explores the intersections of AI, geopolitics, and global governance. It offers recommendations for fostering international

collaboration, advancing AI research, and ensuring that the development of AI is aligned with American values and interests. As AI continues to shape the future of technology, defense, economy, and society, the U.S. must act decisively and strategically to ensure that it remains the global leader in AI innovation and governance.

Background to Policy Action

EO 14179 puts forward its directives during a time of upward momentum for the AI industry. The technology is widely seen to be in a critical period of development, marked by capability improvements that will translate into one of the pillars of twenty-first-century power. This period is defined by the prevalence of Generative Pre-Trained Transformers (GPT) capable of producing coherent and plausible natural language text in addition to images, audio, and video.

A result of this perception is the increasing orientation in policy circles toward the achievement of “Artificial General Intelligence,” or AGI. For example, the U.S.-China Economic and Security Review Commission, in its 2024 annual report to the U.S. Congress, notably recommended that

Congress establish and fund a Manhattan Project-like program dedicated to racing to and acquiring an Artificial General Intelligence (AGI) capability...defined as systems that are as good as or better than human capabilities across all cognitive domains and would usurp the sharpest human minds at every task.¹

The effort to achieve AGI, so defined, is bound up in computing infrastructure needs. In this vein, President Trump announced on January 21, 2025 a joint venture dubbed “Stargate” undertaken by OpenAI, SoftBank, and Oracle to build out at least \$100 billion in AI infrastructure, with up to \$500 billion over four years.² The announcement follows a now-solidified association between computing infrastructure and AI development and deployment, including a project by the same name launched by Microsoft and OpenAI in 2024.³

¹ U.S.-China Economic and Security Review Commission. (2024). *2024 Report to Congress of the U.S.-China Economic and Security Review Commission*. (U.S. Government Publishing Office: Washington, D.C.), p. 27. [https://www.uscc.gov/sites/default/files/2024-11/2024 Annual Report to Congress.pdf](https://www.uscc.gov/sites/default/files/2024-11/2024%20Annual%20Report%20to%20Congress.pdf).

² Cecilia Kang & Cade Metz. (January 21, 2025). Trump Plans to Announce \$100 Billion A.I. Initiative. *The New York Times*. <https://www.nytimes.com/2025/01/21/technology/trump-openai-stargate-artificial-intelligence.html>; see also, Sharon Goldman. (January 22, 2025). OpenAI’s Stargate May Be Tech’s Biggest Gamble Ever, but Here’s What’s Really At Stake. *Fortune*. <https://fortune.com/2025/01/22/openai-stargate-ai-sam-altman-donald-trump/>.

³ Reuters. (March 29, 2024). Microsoft, OpenAI Plan \$100 Billion Data-Center Project, Media Report Says. *Reuters*. <https://www.reuters.com/technology/microsoft-openai-planning-100-billion-data-center-project-information-reports-2024-03-29/>.

The technical achievements, current limitations, and realistic trajectories of state-of-the-art AI models are best conceived in relation to the history of the technology's development. The Defense Advanced Research Projects Agency (DARPA) usefully provided just such a conception:⁴ a “First Wave” characterized by models that leveraged *handcrafted knowledge*, known as rule-based or Symbolic AI, that dominated in the mid-to-late twentieth century; a “Second Wave” that spawned the Deep Learning Revolution and which oversaw the ascendance of *artificial neural networks* that learn through statistical associations of data; and an anticipated “Third Wave” that mitigates or resolves some fundamental shortcomings of AI models by targeting their data-greediness, limited novelty-adaptation, and ability to deliver performance guarantees.⁵

One notable disjuncture between the First and Second Waves is the role of government. The Second Wave has seen the private sector leading the development of AI models that learn through data and achieve the marvelous approximation of higher-order human cognitive abilities. This is most prominent through the recent ‘reasoning’ models from AI labs at OpenAI,⁶ Google,⁷ and xAI.⁸ Private industry has thus pioneered and built out the Second Wave, following the U.S. government’s support for the First Wave of AI and computing research in the twentieth century.⁹

Another disjuncture is less appreciated: a shift from the original meanings of “AGI” imbued by the term’s expositors in the 2000s and its dominant meanings today. The original expositors emphasized the ability of a system to *autonomously* and *incrementally* learn over its *lifecycle*, including through interactions with living and non-living entities in its environment.¹⁰ The sheer difficulty of the problems posed by this conception of AGI – and the need to introduce the term at all – was an indication that the field re-oriented at some point between the First and Second

⁴ See, DARPA. (2018). AI Next Campaign. *DARPA*. <https://web.archive.org/web/20180908120032/https://www.darpa.mil/work-with-us/ai-next-campaign>

⁵ DARPA. (September 7, 2018). DARPA Announces \$2 Billion Campaign to Develop Next Wave of AI Technologies. *DARPA*. <https://www.darpa.mil/news/2018/next-wave-ai>.

⁶ OpenAI. (September 12, 2024). Learning to Reason with LLMs. *OpenAI*. <https://openai.com/index/learning-to-reason-with-llms/>.

⁷ Google. (December 11, 2024). Try Deep Research and Our New Experimental Model in Gemini, Your AI Assistant. *Google: The Keyword*. <https://blog.google/products/gemini/google-gemini-deep-research/>.

⁸ xAI. (2025). Grok. *xAI*. <https://x.ai/grok>.

⁹ See, Nils J. Nilsson. (2009). DARPA’s Strategic Computing Program. In: *The Quest for Artificial Intelligence*, pp. 286-302. (Cambridge, UK: Cambridge University Press) <https://doi.org/10.1017/CBO9780511819346.027>.

¹⁰ See, Ben Goertzel and Cassio Pennachin. (2007). Contemporary Approaches to Artificial General Intelligence. In: *Artificial General Intelligence*, Ben Goertzel and Cassio Pennachin (Eds.), pp. 1-30 (Berlin, DE: Springer-Verlag). <https://link.springer.com/book/10.1007/978-3-540-68677-4>.

Waves; that is, the goal of machine intelligence “shifted from *having* internal intelligence to utilizing external intelligence (the programmer’s intelligence) to solve particular problems.”¹¹ Nevertheless, America dominated the First and Second Waves. It can and should dominate the Third Wave. Some researchers promote Neuro-Symbolic AI—a melding of Symbolic and Machine Learning—as the ideal candidate for the Third Wave.¹²

Yet, AI dominance is not merely a matter of basic R&D. Dominance in the AI competition depends on a state’s ability to wind its way up a chain from basic R&D to scalable commercial and defense applications, to the regulation of the flow of hardware and models across borders. Throughout, critical infrastructure providing the energy to power data centers and other AI-enabling facilities and designating the appropriate land on which to build them is vital.

Our recommendations thus take stock of the progress made in AI and chart a course for the future of American AI dominance. Consistent with our expansive conception of AI supremacy,¹³ we propose that America recognize the strategic importance of U.S.-Gulf relations in regulating the export of specialized hardware and models within the Diffusion Framework, the imperative of energy and infrastructure reforms to scaffold the country’s technological ambitions, and the long-term importance of laying the groundwork for the Third Wave of AI.

Policy Recommendations

Regulations and Export Controls:

1. *Revise the Diffusion Framework by introducing **Tier 1.5** classification, which would expand the sphere of states favorable to U.S. AI and related technology interests that are currently allowed within the Tier system. Additionally, reduce the stringency of computing capacity restrictions imposed on American firms for commercial reach.*

The Diffusion Framework, dividing the world into blocs of states more and less aligned with the U.S., recognizes the importance of restricting the malign and adversarial uses of American AI models and enabling hardware. That said, the exclusivity of its Tier 1 ranking, and the concomitant computing capacity export restrictions associated with its Tier 2 ranking, comes at the expense of a broader conception of AI supremacy. The

¹¹ Peter Voss and Mladjan Jovanovic. (2023). Why We Don’t Have AGI Yet. *ArXiv*, p. 2. <https://arxiv.org/abs/2308.03598v4>.

¹² Artur d’Avila Garcez & Luis C. Lamb. (2023). Neurosymbolic AI: the 3rd wave. *Artificial Intelligence Review*, 56, pp. 12387-12406. <https://doi.org/10.1007/s10462-023-10448-w>.

¹³ See, Vincent Carchidi and Mohammed Soliman. (November 2024). The Role of the Middle East in the U.S.-China Race to AI Supremacy. *Middle East Institute*. <https://www.mei.edu/publications/role-middle-east-us-china-race-ai-supremacy>.



Diffusion Framework, as currently defined, seeks to lock in American dominance over the technical dimensions of its AI leadership yet limits the reach of its commercial AI exports,¹⁴ in this way reducing the scope of American AI dominance.

We, therefore, propose a Tier 1.5 classification to enhance AI collaboration while ensuring security. Tier 1.5 is designed as an intermediate category between Tier 1 (United States and Key Partners) and Tier 2 (Controlled-Access Countries). It offers greater access to AI hardware and large language models (LLMs) than Tier 2, while maintaining robust security and non-proliferation controls to prevent technology leakage to adversaries like China. This balance makes the U.S. a more attractive partner by meeting the technological ambitions of the UAE and Saudi Arabia, fostering strategic partnerships, and reducing the appeal of China's less restrictive offerings.

- **Enhanced Access:** Provides up to **200,000 H100-equivalent AI chips** annually (double Tier 2's 100,000) and supports LLMs with up to **100 billion parameters**, with small exports of **5,000 H100-eq** exempt from individual authorization.
- **Inclusion Criteria:** Requires **security cooperation agreements** and **non-proliferation guarantees** to align countries like the UAE and Saudi Arabia with U.S. interests and block tech leakage to Tier 3 nations.
- **Joint Programs and Audits:** Enforces **joint U.S. R&D programs** and **quarterly audits** by a joint oversight committee to ensure compliance and prevent technology diversion.
- **Enhanced Security Measures:** Mandates **biometric access controls** for AI facilities and **end-to-end encryption** for data, offering U.S. research grants as incentives for compliance.
- **Strategic Advantages Over China:** Delivers long-term partnerships, economic benefits, and a potential Tier 1 pathway, positioning U.S. tech as a secure, superior alternative to China's offerings.

2. *The Secretary of the Department of Commerce should task the National Institute of Standards and Technology (NIST) with formulating recommendations on AI capability metrics beyond computational operations and computing capacity that are tailored for the Third Wave.*

The force of the U.S.'s export control framework on AI and related technologies today rests in large part on the advancement of capabilities in tandem with increases in computing power. The Third Wave could see AI models of a sufficiently different nature

¹⁴ See, e.g., Brad Smith. (February 27, 2025). The Trump Administration Can Avoid a Strategic Misstep in the AI Global Race. *Microsoft*, <https://blogs.microsoft.com/on-the-issues/2025/02/27/trump-administration-ai-global-race/>.



to the models of fascination today that they render the metrics used to evaluate capabilities ineffective. We should, indeed, expect algorithmic and architectural changes in the coupling of Symbolic AI and Machine Learning (First and Second Wave AI), though in unexpected ways.¹⁵ There is thus a need for the Commerce Department to instruct NIST to formulate recommendations on AI capability metrics that are geared to other possible AI futures.

Energy and Infrastructure:

1. *Reform of the National Environmental Policy Act (NEPA) to expedite approvals for geothermal, modular nuclear, and next-gen solar projects would ensure reliable, clean power.*

Energy infrastructure permitting must keep pace with the vast energy resources to be consumed by AI-relevant infrastructure, including data centers, which could consume between 4.6% and 9.1% of U.S. electricity by 2030, up from an estimated 4% in 2024.¹⁶

2. *Create “Innovation Zones” for advanced infrastructure, including the designation of federal lands in states like Nevada, Texas, or Arizona for integrated AI data center clusters powered by on-site geothermal/small modular reactors (SMRs). Pre-approve permits to bypass local grid bottlenecks.*

The U.S. Departments of Energy and Defense were instructed to identify suitable lands for leasing to private entities for data center buildouts in early 2025.¹⁷ Moreover, President Trump indicated the use of “emergency declarations” to accelerate datacenter constructions during the Stargate announcement.¹⁸ Such designations are critical.

¹⁵ There is also doubt as to whether the substrates on which AI is currently built are the only ones possible, or even ideal. See, Luke Gbedemah and Kevin Allison. (February 18, 2025). The Post-Generative Paradigm - “Natural” Systems and the Future of AI. *Inferences by Minerva Technology Policy Advisors*. <https://minervainferences.substack.com/p/the-post-generative-paradigmnatural>.

¹⁶ Electric Power Research Institute. (May 28, 2024). *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption*. (Palo Alto, CA: EPRI), pp. 4-5. <https://www.epri.com/research/products/000000003002028905>.

¹⁷ Will LaRivee. (January 23, 2025). Trump Should Keep, Not Cut, Biden’s Last-Minute Offer of Federal Land for AI Data Centers. *Atlantic Council*. <https://www.atlanticcouncil.org/blogs/new-atlanticist/trump-should-keep-not-cut-bidens-last-minute-offer-of-federal-land-for-ai-data-centers/>.

¹⁸ Billy Perrigo. (January 22, 2025). What to Know About ‘Stargate,’ OpenAI’s New Venture Announced by President Trump. *Time*. <https://time.com/7209167/stargate-openai-donald-trump/>.



3. *Invest in Space-based Solar Power (SBSP) demonstrations and in-orbit infrastructure build-outs through NASA and DARPA to capture the full range of AI-relevant and strategically sensitive sources of energy.*

The relationship between AI and space-based infrastructure is underappreciated. Hardening the link between the two is increasing in importance within areas such as Space Situational Awareness (SSA) (where AI can be used to monitor in-orbit traffic), autonomy of operations in earth's orbit, and the strategic dimensions born of these new capabilities (including threat detection).

We target space-based energy generation here given the importance of its underlying infrastructure build-out for this link to mature over time. SBSP, which would beam clean energy from space, is one such source.¹⁹ Notably, America's chief rival, China, has committed \$500 million to its Zhuri SBSP technology by 2030 with the ultimate aim of building a 10 MW station by 2035. Serving as a proxy for advancements in supporting and adjacent technologies, including wireless power transmission and robotics, such investment would help firm up America's energy needs.

Research and Development:

1. *The National Artificial Intelligence Initiative Office (NAIIO) and the Subcommittee on Machine Learning and AI should instruct the Federal AI R&D Interagency Working Group (IWG) to make a long-term investment in DARPA's basic and applied Neuro-Symbolic research.*

The federal AI R&D IWG is a coordination body²⁰ serving the U.S.'s strategic AI R&D objectives. The IWG itself is overseen by two separate bodies housed within the Executive Branch: the NAIIO and the Subcommittee on Machine Learning and AI.

DARPA is a participating agency within this IWG,²¹ with its Assured Neuro Symbolic Learning and Reasoning program supported as part of the IWG's strategic priority to

¹⁹ See, Mohammed Soliman. (February 24, 2025). Race to the Future: Accelerating America's Technological Edge in the Tech Competition with China. *The National Interest*. <https://nationalinterest.org/blog/techland/race-to-the-future-accelerating-americas-technological-edge-in-the-tech-competition-with-china>.

²⁰ NITRD. (July 2, 2018). A New NITRD IWG for Artificial Intelligence (AI) R&D. *NITRD*. <https://www.nitrd.gov/a-new-nitrd-iwg-for-artificial-intelligence-ai-rd/>.

²¹ NITRD and NAIIO. (2023). *Supplement to the President's FY 2024 Budget: A report by the Subcommittee on Networking & Information Technology Research & Development and the Machine Learning & Artificial Intelligence Subcommittee of the National Science & Technology Council*. (Washington, D.C.: Executive Office of the President of the United States), p. 27.



ensure the safety and security of AI systems.²² This work is an early example of Third Wave AI research falling under the banner of Neuro-Symbolic AI. Defense research in Third Wave AI should be expanded, building out from beyond the focus on safety and security in basic and applied Neuro-Symbolic research. The IWG should make an additional long-term investment accordingly.

2. *The National Science Foundation should establish a National AI Research Institute dedicated to developing factually accurate, explainable, and reliable Neuro-Symbolic algorithms that support critical clinical applications.*

The establishment of an Institute for Neuro-Symbolic AI research must fund both foundational and use-inspired research that is high-risk and high-reward.²³ It must also target select areas for policy action. We thus set our sights on algorithms and architectures that support clinical applications in healthcare environments, in this way targeting deficiencies including factual accuracy, explainability, reliability, and meta-cognition while entrenching U.S. frontier AI research in a critical sector.²⁴

Clinical applications are not only ideally situated to serve as foils for this end, but Neuro-Symbolic research is already pursued in this vein in tandem with the AI Institutes. Indeed, in a special issue on the Institutes by *AI Magazine* in 2024, researchers Manas Gaur and Amit Sheth argue that LLMs have not risen to the level of “inherently trustworthy” and their generative outputs cannot be relied upon in healthcare settings without grounding in factual clinical knowledge and practice guidelines.²⁵ They therefore argue for Neuro-Symbolic systems that “seamlessly blend the powerful approximating capabilities of neural networks with trustworthy symbolic knowledge.”²⁶

²² Ibid., p. 30.

²³ The Institutes are geared towards *use-inspired* research for domain-specific applications where current approaches fall short. They are encouraged to make and plan for *long-term* research projects. James J. Donlon. (2024). The National Artificial Intelligence Research Institutes Program and Its Significance to a Prosperous Future. *AI Magazine*, 45(1), p. 6-8.

<https://doi.org/10.1002/aaai.12153>. They also pursue *complementarity* with the private sector, taking on “high-risk, high-reward projects” that the latter deems too risky yet possess Institute-specific public-private partnerships and research “alliances.” Ibid., p. 11.

²⁴ Neuro-Symbolic research links the algorithmic- and application-levels. Much as humans automatically perceive environments and exert deliberate cognitive control over them (e.g., long-term planning), AI-enabled systems should adhere to similar principles, for which Symbolic AI and Machine Learning are usefully melded. See, e.g., Sheth, A., Roy, K., and Gaur, M. (2023). Neurosymbolic Artificial Intelligence (Why, What, and How). *IEEE Intelligent Systems*, 38, pp. 56-62. <https://doi.ieeecomputersociety.org/10.1109/MIS.2023.3268724>.

²⁵ Manas Gaur and Amit Sheth. (2024). Building Trustworthy NeuroSymbolic AI Systems: Consistency, Reliability, Explainability, and Safety. *AI Magazine*, 45(1): p .140.

<https://doi.org/10.1002/aaai.12149>.

²⁶ Ibid.

3. *Leverage domestic and international partnerships between scientific institutions and private organizations to engineer open-source methods that independently develop compute- and data-efficient methods for state-of-the-art performance. Consider establishing a national computational reserve that allocates resources to this end.*

The release of DeepSeek-R1, developed by Chinese firm DeepSeek, sparked major debate over closed-source and open-source models. The debate owed in part to DeepSeek’s publication of their methods detailing the model’s construction.²⁷

Debate should overlook the fact that OpenAI developed its o1 model, demonstrating that the relevant post-training techniques over a pre-trained language model provide capability improvements of no small measure, thereby allowing DeepSeek to more efficiently target and allocate its own computational resources in the search of independent techniques to produce its ‘reasoning’ model.

A leader in AI will complement proprietary state-of-the-art models with incentives for the development of open-source models that engineer comparatively compute- and data-efficient techniques while reproducing or approximating state-of-the-art capabilities. The U.S should leverage partnerships between scientific institutions and corporate organizations to this end, somewhat emulating OpenAI’s February 2025 “jam session”²⁸ with US national labs with an open-source bent.

Additionally, the U.S. should consider a variant of a recommendation to establish a national computational reserve²⁹ from which open-source researchers can draw resources for this work. Rather than a one-size-fits-all approach, however, this reserve should allocate resources tailored to compute- and data-efficient ends.

Ensuring U.S. Leadership in the Global AI Race

As the U.S. continues its leadership role in the rapidly advancing world of AI, it is critical to act swiftly and strategically to address the regulatory, infrastructural, and technical challenges that lie ahead. The stakes of this competition are not just economic but geopolitical, with the potential to redefine global power structures. By implementing the recommendations outlined in this

²⁷ DeepSeek-AI et al. (2025). DeepSeek-R1: Incentivizing Reasoning Capability in LLMs via Reinforcement Learning. *ArXiv*, pp. 1-22. <https://doi.org/10.48550/arXiv.2501.12948>.

²⁸ Open AI. (February 28, 2025). “1,000 Scientist AI Jam Session: Advancing Science with the U.S. national labs. *OpenAI*. <https://openai.com/global-affairs/1000-scientist-ai-jam-session/>.

²⁹ See, Amy Zegart. (August 20, 2024). “The Crumbling Foundations of American Strength.” *Foreign Affairs*. <https://www.foreignaffairs.com/united-states/crumbling-foundations-american-strength-amy-zegart>.



report, the U.S. can maintain its dominance in AI while safeguarding its values, ethical standards, and national security interests.

The proposals to regulate the flow of hardware and models, reform energy infrastructure, and enhance AI research and development are foundational to building a sustainable and innovative AI ecosystem. By creating Innovation Zones and advancing Third Wave AI, the U.S. can foster an environment that supports the next generation of AI models, while ensuring their application remains transparent and free from bias. In the face of China's aggressive AI strategy, the U.S. must also focus on international cooperation, securing its technological advantages through careful regulation and strategic partnerships with allied nations. Moreover, enhancing export control frameworks and developing robust AI capability metrics will ensure that the U.S. retains control over critical technologies and prevents adversaries from gaining a competitive edge.

Ultimately, the future of AI will be determined by those who can innovate faster, deploy more effectively, lay the groundwork for the future. The U.S. has the opportunity to shape this future, but it must act now to secure its position as the global leader in AI. Through bold investments in infrastructure, research, and international collaboration, the U.S. can ensure that it continues to lead the world in the AI race and remains a beacon of technological and democratic values.