



March 14, 2025

*Via Electronic Submission*

Faisal D'Souza, NCO  
Office of Science and Technology Policy  
Executive Office of the President  
2415 Eisenhower Avenue  
Alexandria, VA 22314

**Re: Request for Information on the Development of an Artificial Intelligence (AI) Action Plan**

Over the past several years, artificial intelligence (AI) capabilities have advanced at a breakneck pace. The capabilities that will be unlocked over the course of the Trump Administration will be even greater. The Administration's decisions during this time will be pivotal to ensuring this technology transforms American lives for the better. Americans for Responsible Innovation (ARI) strongly believes that with thoughtful policymaking, the United States can harness AI's vast potential while mitigating potential harm to our citizens.

Since the end of President Trump's first term, the amount of computing power needed to train a next-gen AI model has increased over 1,000-fold—from small chip clusters to multibillion-dollar data centers using as much electricity as a whole city—with the trendline continuing to point up.<sup>1</sup> As a result, AI has advanced from only being able to string basic sentences together to performing PhD-level research tasks. Over the next four years, American companies may spend over a trillion dollars developing even more powerful systems—possibly including broadly human-level systems known as artificial general intelligence (AGI).<sup>2</sup> These systems will enable dramatic breakthroughs from science and medicine to energy and manufacturing. They will also supercharge Americans' productivity and accelerate innovation across the economy.

---

<sup>1</sup> Research firm Epoch AI calculates that the compute cost of producing notable AI models increased by ~4.5x per year between the end of 2020 and mid 2025 (I.e.,  $4.5^{4.6} = 1011.06$ ). See Epoch AI (2024). *Notable AI Models* (Last Updated Mar. 2025) [Data set and graph]. <https://epoch.ai/data/notable-ai-models>

<sup>2</sup> Alvarez, J. & Doan, L. (2025, February 25). Tech Giants Have Pledged Over \$1 Trillion in US Investment, So Far. *Bloomberg*. <https://www.bloomberg.com/news/articles/2025-02-25/apple-openai-among-tech-firms-pledging-over-1-trillion-since-trump-took-office>

Yet these same technologies, if developed irresponsibly, could help terrorists start a new pandemic or destroy critical infrastructure with cyberattacks.<sup>3</sup> And as AI automation transforms and disrupts the labor market, smart policy will be needed to help millions of workers stay competitive in the workforce. Meanwhile, the U.S. must stay at the forefront of global AI development while ensuring that these powerful systems are reliable and stay under human control.

Earlier this year, President Trump signed Executive Order 14179 to establish U.S. policy for “sustaining and enhancing America's AI dominance in order to promote human flourishing, economic competitiveness, and national security.” No government in history has had to manage such transformative change in so short a time. ARI is heartened that the Trump Administration is seeking broad input from the public as it develops its forthcoming AI Action Plan.

The focus of our response to the administration’s RFI is on pragmatic, actionable policies that ensure AI serves as a force for national strength rather than a source of national vulnerability. In this Comment, we highlight what we believe are the most urgent policies the Administration can implement to advance its stated priorities of national security, human flourishing, and economic competitiveness. Through a combination of executive action, the convening authority of the White House, and carefully targeted regulation, the Administration can establish a governance framework for AI that benefits the American people and economy, while protecting the public from harm.

---

<sup>3</sup> Pillay, T., & Booth, H. (2024, August 27) *AI Could One Day Engineer a Pandemic, Experts Warn*. Time. <https://time.com/7014800/ai-pandemic-bioterrorism/>; See “AI Risks to Critical Infrastructure” in U.S. Department of Homeland Security, Safety and Security Guidelines for Critical Infrastructure Owners and Operators (Apr. 2024), available at <https://www.dhs.gov/publication/safety-and-security-guidelines-critical-infrastructure-owners-and-operators>

## NATIONAL SECURITY

As AI becomes more powerful, the risk that it will be used against the United States to endanger America's national security grows in tandem.<sup>4</sup> Within the next few years, frontier models will likely be capable enough to design devastating cyberattacks or synthesize deadly pathogens.<sup>5</sup> Without effective security measures, terrorists could access these capabilities and use them to harm Americans. At the same time, hostile regimes will escalate efforts to steal state-of-the-art technology from U.S. labs, and will invest heavily in developing models that could provide them decisive geopolitical advantages.<sup>6</sup>

We believe the Trump Administration can mitigate these national security risks via focused policies in the following four key areas: bolstering defenses against bio and cyber attacks, strengthening the security of American cloud compute resources, hardening top AI labs against foreign espionage, and using export controls to incentivize adoption of secure AI development practices worldwide.

**A. Bio and Cyber Defense.** The most plausible catastrophic risks from AI over the next four years are in the domains of biology and cybersecurity.<sup>7</sup> Security efforts should be focused on maximizing defenses against these harms and keeping the ability to create super-pandemic bioweapons or power-grid-wrecking cyberweapons out of the hands of terrorists or adversary state actors.<sup>8</sup>

**Recommendation 1: Empower the U.S. AI Safety Institute (AIS) to protect national security.** Because AI with advanced bio and cyber capabilities could cause severe harm to national security, the U.S. government must be proactive about anticipating and mitigating dangers to Americans. AIS has the right and requisite technical capabilities to keep the White House accurately informed—regularly assessing how the frontier of AI science is changing the risk landscape. In addition, AIS can evaluate foreign models like

---

<sup>4</sup> Drexel, B., & Withers, C. (2024, June 11). *Catalyzing crisis: Emerging catastrophic risks of artificial intelligence*. Center for a New American Security. <https://www.cnas.org/publications/reports/catalyzing-crisis>

<sup>5</sup> Anthropic. (2024, October 31). *The case for targeted regulation*. <https://www.anthropic.com/news/the-case-for-targeted-regulation>

<sup>6</sup> Burnham, J., & Carroll, T. (2024, December 2). *How to beat China in the quest for AI dominance*. Foundation for Defense of Democracies. [https://www.fdd.org/analysis/op\\_ed/2024/12/02/how-to-beat-china-in-the-quest-for-ai-dominance/](https://www.fdd.org/analysis/op_ed/2024/12/02/how-to-beat-china-in-the-quest-for-ai-dominance/)

<sup>7</sup> Anthropic. (2024, October 31). *The case for targeted regulation*. <https://www.anthropic.com/news/the-case-for-targeted-regulation>; Anurin, A., et al. (2024). *Catastrophic Cyber Capabilities Benchmark (3CB): Robustly Evaluating LLM Agent Cyber Offense Capabilities*. arXiv. <https://doi.org/10.48550/arXiv.2410.09114>

<sup>8</sup> Rose, S. et al. (2024). *The near-term impact of AI on biological misuse*. Center for Long-Term Resilience. <https://www.longtermresilience.org/wp-content/uploads/2024/07/CLTR-Report-The-near-term-impact-of-AI-on-biological-misuse-July-2024-1.pdf>; National Cyber Security Centre. (2024, January 24). *The impact of AI on the cyber threat*. <https://www.ncsc.gov.uk/report/impact-of-ai-on-cyber-threat>

DeepSeek R1 to assess the state of America’s strategic lead and inform decision-making about how to maintain it. As appropriate, these insights should feed directly into the National Security Council (NSC) and the Office of Science and Technology Policy (OSTP).

**Recommendation 2: Mandate WMD safeguards via government contracts.** The Administration can act quickly through its contracting authorities to address catastrophic risks. Any AI labs that develop state-of-the-art models and receive U.S. government contracts should be required to demonstrate that their systems have robust safeguards against the creation of bioweapons and other weapons of mass destruction.<sup>9</sup>

**Recommendation 3: Maintain and strengthen the Framework for Nucleic Acid Synthesis Screening.**<sup>10</sup> If AI model safeguards fail and terrorists obtain the sequence for a deadly pathogen, they could attempt to synthesize it via a benchtop nucleic acid synthesizer or order it from an on-demand biosynthesis service. The Framework as it currently stands requires Know-Your-Customer (KYC) checks for purchasers of synthesis equipment or synthetic nucleic acids, as well as automated screening of nucleic acid purchase orders for harmful sequences so that suspected bioweapon creation can be reported to the FBI. Framework enforcement can be made more effective with risk-tiered KYC, much like banks and crypto wallets already implement—easing the regulatory burden for trusted actors while focusing extra scrutiny on high-risk orders. HHS’s Biological Select Agents and Toxins database of sequences of concern to screen for should also be regularly updated in consultation with AISI as AI discovers new vulnerabilities.<sup>11</sup>

**Recommendation 4: Harden critical infrastructure against AI cyberattacks and incentivize private investment.** The U.S. government should invest aggressively in assessing vulnerabilities to next-generation AI cyberattacks—not just current vulnerabilities—with the aim of developing and deploying mitigations. The Cybersecurity and Infrastructure Security Agency (CISA) should work with AISI to identify emerging AI capabilities and new harms they enable. This can also help

---

<sup>9</sup> One way this could be operationalized is by using the Weapons of Mass Destruction Proxy (WMDP) evaluation, co-developed by Scale AI and the Center for AI Safety. Yue, S., & Barrios, D. (2024, March 6). *Introducing WMDP: Measuring and Mitigating Catastrophic Risk Potential from LLMs*. Scale AI. <https://scale.com/blog/measuring-mitigating-risk-wmdp>

<sup>10</sup> Office of Science and Technology Policy. (2024, September). *Framework for Nucleic Acid Synthesis Screening*. Administration for Strategic Preparedness and Response. <https://aspr.hhs.gov/S3/Documents/OSTP-Nucleic-Acid-Synthesis-Screening-Framework-Sep2024.pdf>

<sup>11</sup> Federal Select Agent Program. (2025, January 14). *Select agents and toxins list*. U.S. Department of Health and Human Services & U.S. Department of Agriculture. <https://www.selectagents.gov/sat/list.htm>

private-sector actors invest more effectively in protecting critical infrastructure they control.

**B. Robust KYC for Cloud Compute.** The U.S.'s AI chip export controls on China have helped to impede their AI development so far, but the availability of cloud compute constitutes a significant gap in this regime.<sup>12</sup> While some customer documentation measures are in place, these are often geared toward foreign customers and large training runs. It remains too easy for foreign actors to access inference compute through American intermediaries for purposes that violate U.S. law and endanger national security: hacking, scamming, radicalization, and incitement. Unlike virus design biorisks, these are harms that hinge on deploying thousands of AI model instances in parallel. There is a need for stronger, risk-tiered KYC to raise the difficulty bar for bad actors trying to use American AI infrastructure to harm Americans.

**Recommendation 5: Support the Remote Access Security Act.**<sup>13</sup> This bill explicitly expands the export control regime to include cloud services. If passed, it would provide a firm legal foundation for Executive Branch action to protect American cloud assets from abuse.

**Recommendation 6: Incentivize stronger KYC measures.** While updated regulations are being formulated, government contracting authority is a straightforward mechanism to induce cloud providers to quickly enforce stronger KYC protocols on customers seeking access to large-scale U.S. inference compute.

**Recommendation 7: Maintain and Strengthen the Framework for Artificial Intelligence Diffusion.**<sup>14</sup> Countries that are unable or unwilling to enforce cloud KYC domestically make it easy for hackers, scammers, or terrorists within their borders to use AI to harm America and its citizens. By slightly adjusting the Framework, the U.S. can tie national-level chip export controls to basic KYC implementation, strongly incentivizing countries to police international AI-enabled crime originating within their borders.

---

<sup>12</sup> Fist, T., & Grunewald, E. (2023, October 24). *Preventing AI chip smuggling to China*. Center for a New American Security. <https://www.cnas.org/publications/reports/preventing-ai-chip-smuggling-to-china>; Shivkumar, S, et al. (2024, February 21). *Balancing the ledger: Export controls on U.S. chip technology to China*. Center for Strategic and International Studies. <https://www.csis.org/analysis/balancing-ledger-export-controls-us-chip-technology-china>; Yang, Z. (2025, January 25). *How Chinese AI startup DeepSeek made a model that rivals OpenAI*. WIRED. <https://www.wired.com/story/deepseek-china-model-ai/>

<sup>13</sup> Remote Access Security Act, H.R.8152, 118th Cong. (2024). <https://www.congress.gov/bill/118th-congress/house-bill/8152>

<sup>14</sup> Framework for Artificial Intelligence Diffusion, 90 F.R. 4544 (proposed Jan. 15, 2025) (to be codified at 15 C.F.R. §§ 732, 734, 740, 742, 744, 748, 750, 762, 772, & 774). <https://www.federalregister.gov/d/2025-00636>

**C. Hardening Frontier Lab Security.** The Intelligence Community (IC) should partner closely with frontier labs to secure U.S. AI technology against Advanced Persistent Threats (APTs).<sup>15</sup> This can reduce risk of theft of model weights developed at the cost of billions of dollars and which may have decisive military, cyber, or intelligence applications.

**Recommendation 8: Provide Intelligence Community tools and expertise to harden frontier labs.** The resources and know-how of the NSA, FBI, and CISA are crucial to hardening frontier labs’ defenses against attempts by adversaries to steal research secrets or model weights. Current lab defenses are woefully inadequate and need to rapidly improve to prepare for state actor-level threats against their most sensitive and dangerous technology.<sup>16</sup> Frontier labs are likely to welcome security assistance, but government contracting authority can be used as an incentive if necessary.

**Recommendation 9: Conduct realistic penetration tests.** Regular and sophisticated “pen tests” are critical for preparing frontier labs’ defenses against sophisticated attacks.<sup>17</sup> We propose that the IC offer regular penetration tests to the nation’s frontier AI labs. These would be voluntary for labs, but government defense contracts and other sensitive contracting should be contingent on participation in this security program. Likewise, participation should be obligatory for labs leasing federal sites for their infrastructure. Vulnerabilities discovered in penetration tests should be mitigated with assistance from the Intelligence Community and federal law enforcement.

---

<sup>15</sup> Baker, K. (2025, March 4). *Advanced Persistent Threats (APT) Explained*. CrowdStrike.

<https://www.crowdstrike.com/en-us/cybersecurity-101/threat-intelligence/advanced-persistent-threat-apt/>

<sup>16</sup> Saunders, W., & Kokotajlo, D. (2024, August 22). *Letter from OpenAI Whistleblowers*. Politico.

<https://static.politico.com/ed/a3/b49946554f5ead081a5df2063048/letter-from-openai-whistleblowers-on-sb-1047-2024-08-22-2.pdf>

<sup>17</sup> IBM. (2023, January 24). *What is Penetration Testing?* <https://www.ibm.com/think/topics/penetration-testing>

## HUMAN FLOURISHING

Human flourishing in the age of AI requires more than just protecting people against catastrophic risks. ARI believes that with ambitious and responsible development, artificial intelligence can power a future where ordinary Americans enjoy levels of health, prosperity, and freedom far greater than what's possible today. While the private sector will lead this revolution, there is a crucial role for government: funding neglected basic science, striking a smart regulatory balance that builds trust in the security and reliability of advanced AI systems, and cracking down on abusive applications of AI, to name a few.

The Trump Administration's AI Action Plan should prioritize three clusters of policies that will maximize human flourishing: accelerating medical breakthroughs, catalyzing U.S. materials science discoveries, and protecting Americans from AI-enabled exploitation.

**D. Medical Breakthroughs.** Chronic diseases like cancer, heart disease, diabetes, and Alzheimer's cost the U.S. about \$4 trillion a year, not including enormous lost productivity.<sup>18</sup> Over 1.5 million Americans die from these diseases each year, and tens of millions more suffer extreme physical, financial, and emotional hardships. AI capabilities to cure these diseases and transform patient care are now within reach.<sup>19</sup> In addition to revolutionizing health care and unleashing greater economic productivity, achieving breakthrough cures can save Medicare trillions of dollars—making the return on government investment exceptionally favorable.

**Recommendation 10: Accelerate drug discovery and evaluation.** AI-augmented drug discovery is now rapidly maturing.<sup>20</sup> For the first time, a drug designed end-to-end with AI has passed its phase IIa clinical trial last year to treat a fatal lung disease, and dozens more candidates are in testing.<sup>21</sup> New platforms like AlphaFold 3 and AlphaProteo demonstrate AI's immense potential to simulate biology and develop breakthrough medicines—much faster and cheaper than was possible before—and solve problems like

---

<sup>18</sup> Centers for Disease Control and Prevention. (2024, July 12). *Fast Facts: Health and Economic Costs of Chronic Conditions*. Department of Health and Human Services.

<https://www.cdc.gov/chronic-disease/data-research/facts-stats/index.html>

<sup>19</sup> Thornhill, J. (2024, June 27). To cure disease, AI needs more of our data. *Financial Times*.

<https://www.ft.com/content/03a636fd-aac4-427e-a393-31b4d08109d1>; Regalado, A. (2024, March 20). *An AI-driven "factory of drugs" claims to have hit a big milestone*. MIT Technology Review.

<https://www.technologyreview.com/2024/03/20/1089939/a-wave-of-drugs-dreamed-up-by-ai-is-on-its-way>

<sup>20</sup> Licholai, G. (2025, March 12). *AI Superintelligence Startup Promises Drug Discovery Revolution*. Forbes.

<https://www.forbes.com/sites/greglicholai/2025/03/12/ai-superintelligence-promises-drug-discovery-revolution/>

<sup>21</sup> Insilico Medicine. (2024, November 21). *Insilico Medicine Announces Positive Topline Results of ISM001-055 for the Treatment of Idiopathic Pulmonary Fibrosis (IPF) Developed Using Generative AI*. PR Newswire.

<https://www.prnewswire.com/news-releases/insilico-medicine-announces-positive-topline-results-of-ism001-055-for-the-treatment-of-idiopathic-pulmonary-fibrosis-ipf-developed-using-generative-ai-302302583.html>

antibiotic resistance that traditional pharmaceutical research struggles with.<sup>22</sup> The National Institutes of Health (NIH) should strongly prioritize funding and support for AI applications to drug discovery, especially for translational medicine and diseases neglected by private-sector research. In addition, because accelerating drug discovery will mean more clinical trials, the FDA should bolster its evaluation capacity so potential cures are not delayed by bureaucratic inefficiency.

**Recommendation 11: Build AI-powered medical research tools.** The research dollars and scientific talent currently devoted to curing chronic diseases are bottlenecked by reliance on badly outdated tools and techniques. Smart platforms like Co-Scientist and the SAMPLE robotic lab show how AI can dramatically empower American scientists at every phase of the research pipeline—from hypothesis generation through experimental design, wet-lab work, precise measurement, and large-scale data analysis.<sup>23</sup> To harness this potential, the National Science Foundation (NSF) should increase funding for the development of AI tools that can accelerate biomedical research. In addition, NIH grantmaking should incentivize adoption of these tools, and it should develop trainings to help scientists use the latest AI capabilities effectively.

**Recommendation 12: Integrate AI to improve patient care.** AI already achieves superhuman performance at many of the reasoning tasks physicians perform in clinical practice.<sup>24</sup> Yet most doctors are not trained to utilize AI effectively and lack the familiarity to build trust in its abilities.<sup>25</sup> Building trust requires iterative innovation and responsible experimentation. Federal healthcare systems like those within the Department of Veterans Affairs should create regulatory sandboxes similar to the UK’s AI Airlock, reducing red tape while enabling rigorous evaluation and rapid deployment of medical AI technologies.<sup>26</sup>

---

<sup>22</sup> Abramson, J. et al. (2024). Accurate structure prediction of biomolecular interactions with AlphaFold 3. *Nature*, Vol. 630 (8016), 493–500. <https://doi.org/10.1038/s41586-024-07487-w>; DeepMind. (2024, September 5). AlphaProteo generates novel proteins for biology and health research.

<https://deepmind.google/discover/blog/alphaproteo-generates-novel-proteins-for-biology-and-health-research/>; Gerken, T. (2025, February 20). *AI cracks superbug problem in two days that took scientists years*. BBC. [https://www.bbc.com/news/articles/clyz6e9edy3o?fbclid=IwY2xjawluqxpleHRuA2FlbOIxMOABHdlqbkfKborO3WAc4EIBB1Q0HJEAlhCt8wPwzndHynOVpmLJDaZC5sVxWg\\_aem\\_7LW2wUnpjpARxtoBWgCadg](https://www.bbc.com/news/articles/clyz6e9edy3o?fbclid=IwY2xjawluqxpleHRuA2FlbOIxMOABHdlqbkfKborO3WAc4EIBB1Q0HJEAlhCt8wPwzndHynOVpmLJDaZC5sVxWg_aem_7LW2wUnpjpARxtoBWgCadg)

<sup>23</sup> Gottweis, J., & Natarajan, V. (2025, February 19). *Accelerating scientific breakthroughs with an AI co-scientist*. Google Research. <https://research.google/blog/accelerating-scientific-breakthroughs-with-an-ai-co-scientist/>; Rapp, J., et al. (2024). Self-driving laboratories to autonomously navigate the protein fitness landscape. *Nature Chemical Engineering*, Vol. 1 (1), 97–107. <https://doi.org/10.1038/s44286-023-00002-4>

<sup>24</sup> Brodeur, P., et al. (2024). *Superhuman performance of a large language model on the reasoning tasks of a physician*. arXiv. <https://doi.org/10.48550/arXiv.2412.10849>

<sup>25</sup> Kolata, G. (2024, November 17). A.I. Chatbots Defeated Doctors at Diagnosing Illness. *New York Times*. <https://www.nytimes.com/2024/11/17/health/chatgpt-ai-doctors-diagnosis.html>

<sup>26</sup> Medicines and Healthcare products Regulatory Agency. (2024, December 4). *AI Airlock: The regulatory sandbox for AIaMD*. GOV.UK. <https://www.gov.uk/government/collections/ai-airlock-the-regulatory-sandbox-for-aiamd>

**E. Materials Science Leadership.** Technological progress across dozens of key fields is currently bottlenecked by the slow pace of materials science discovery. Superhuman AI tools like Google’s GNoME are now emerging to break the logjam.<sup>27</sup> This can spur strong economic growth and greatly improve Americans’ quality of life.

**Recommendation 13: Fund targeted research for rare-earth substitutes.** U.S. manufacturing is now dangerously reliant on lithium and rare-earth elements, which are mostly produced and processed in China. Effective substitutes made from common elements are known to be possible. For example, carbon nanomaterials show the potential to eliminate or reduce the need for several sorts of geochemically rare metals (such as indium) in many applications.<sup>28</sup> But it will take an aggressive AI effort to find these substitutes and bring them to technological maturity. Due to weaknesses in U.S. patent law, the private sector is underinvesting in this research.<sup>29</sup> Until that can be fixed, ARPA-E and the NSF should allocate high-priority funding for the effort. Due to the national security imperative to reduce America’s dependence on China’s rare earths, DoD should also invest boldly in AI materials discovery, especially for substances with defense applications.

**Recommendation 14: Fund targeted research for electrical infrastructure and battery chemistries.** The laws of physics suggest that vastly better materials are possible for storing and transmitting electricity. For example, today’s lithium-ion batteries often achieve energy densities around 270 Wh/kg, whereas lithium-air chemistries could theoretically achieve up to around 11,000 Wh/kg.<sup>30</sup> In addition to absolute efficiency gains, even larger price-performance gains are possible if materials science AI discovers alternative compounds or new manufacturing processes that can bring costs down. Discovering superior electrical materials would eliminate costly waste and allow the U.S. to better harness AI-driven energy breakthroughs in fusion, safe fission, and photovoltaics.

---

<sup>27</sup> Merchant, A., & Cubuk, E. D. (2023, November 29). *Millions of new materials discovered with deep learning*. DeepMind. <https://deepmind.google/discover/blog/millions-of-new-materials-discovered-with-deep-learning/>

<sup>28</sup> Arvidsson, R., & Sandén, B. (2017). Carbon nanomaterials as potential substitutes for scarce metals. *Journal of Cleaner Production*, Vol. 156 (1), 253–261. <https://doi.org/10.1016/j.jclepro.2017.04.048>; Johnson, D. (2011, April 13). *Carbon Nanotube Solution Could Eliminate Need for Indium Tin Oxide in Electronic Displays*. IEEE Spectrum. <https://spectrum.ieee.org/carbon-nanotube-solution-could-eliminate-need-for-indium-tin-oxide-in-electronic-display>

<sup>29</sup> Penti, R. S. et al. (2024, February 14). *Can AI inventions be patented? The USPTO speaks*. Ropes & Gray LLP. <https://www.ropesgray.com/en/insights/alerts/2024/02/can-ai-inventions-be-patented-the-uspto-speaks>

<sup>30</sup> Frith, J.T. et al. (2023) A non-academic perspective on the future of lithium-based batteries. *Nature Communications*, Vol. 14 (1). 1–17. <https://doi.org/10.1038/s41467-023-35933-2>; Xiao, J. et al. (2010). Hybrid Air-Electrode for Li/Air Batteries. *Journal of The Electrochemical Society*, Vol. 157 (3). A294–A297. <https://doi.org/10.1149/1.3280281>

**F. Safeguarding Americans from Exploitation.** AI has enabled bad actors to scam and exploit Americans on a scale never before seen. The Trump administration must strengthen protections for America’s seniors, for victims of non-consensual intimate imagery, for election integrity, and for consumer privacy to mitigate the harmful impact of AI exploitation.

**Recommendation 15: Protect our elders.** Senior citizens are especially vulnerable to AI-augmented scams, such as automated spear phishing, voice-cloning attacks, fake customer service bots, and healthcare-related fraud.<sup>31</sup> The Department of Justice should establish a dedicated unit to investigate and prosecute these scams and assist victims, working closely with AISI both to identify emerging threats and inform secure AI development.

**Recommendation 16: Ban non-consensual deepfake pornography.** AI can now create realistic sexual imagery of non-consenting people and that capability will rapidly get even more advanced. ARI applauds the Trump Administration’s support for the TAKE IT DOWN Act criminalizing non-consensual publication of pornographic deepfakes, and also urges support for the bipartisan DEFIANCE Act, providing civil remedies for deepfake victims.<sup>32</sup> NIST should fund research developing better deepfake detection and provenance-authentication technologies.

**Recommendation 17: Strengthen consumer privacy.** Americans still have little control over how their personal information is harvested online and used in AI training. The Trump Administration should work with Congress to develop bipartisan legislation protecting users’ data privacy.

---

<sup>31</sup> Gorman, B. (2024, November 18). *5 AI scams to watch out for in 2025*. LifeLock by Norton. <https://lifelock.norton.com/learn/internet-security/ai-scams>; Fletcher, K. (2024, October 31). *Is AI calling you? Watch out for the flex card scam*. California Health Advocates. <https://cahealthadvocates.org/is-ai-calling-you-watch-out-for-the-flex-card-scam/>

<sup>32</sup> TAKE IT DOWN Act, S.4569, 118th Cong. (2024). <https://www.congress.gov/bill/118th-congress/senate-bill/4569/text>; DEFIANCE Act of 2024, S.3696, (2024). <https://www.congress.gov/bill/118th-congress/senate-bill/3696/all-info>

## ECONOMIC COMPETITIVENESS

ARI expects that the long-run development and adoption of AI in the United States will bring about an economic transformation comparable to the Industrial Revolution. This will create tremendous wealth, but also impose serious challenges as companies and workers must adapt to changes faster than ever in history. Many millions of jobs will be both created and destroyed, while the skills demanded by others rapidly evolve.<sup>33</sup> Successful deployment of AI—from white-collar work, to manufacturing, to autonomous vehicles—will depend on public confidence in trustworthy systems. The U.S.’s continued global competitiveness will require the aggressive expansion of infrastructure like domestic semiconductor manufacturing, data center infrastructure, and electricity supply. To meet all these challenges, the government will need deep technical expertise to implement agile, evidence-based policies effectively.

To maximize U.S. economic competitiveness during this revolution, the AI Action Plan should focus on four vital policy concerns: smart vocational training programs to accelerate workforce adaptation, cementing America’s advantages in AI reliability, accelerating AI infrastructure development, and attracting and retaining top AI talent in government.

**G. Smart Vocational Training.** As AI disrupts the labor market ever more rapidly, workers can no longer assume skills gained from a bachelor’s degree will last their whole career. Tens of millions of the most needed and most automation-insulated jobs are in vocations like building trades, home health, and hospitality.<sup>34</sup> In addition, as AI transforms labor markets, it will create millions of new jobs in emerging fields like data center maintenance, robotics, and energy, but will also require many workers to learn new skills in order to remain competitive.<sup>35</sup> America’s workforce needs agile training programs that quickly teach useful skills to mastery. Fortunately, AI can also be a powerful tool to help people learn. Over the course of President Trump’s term, tools like smarter AI tutors and AI-enhanced online courses will likely be available. This may enable a degree of workforce adaptability that was not possible with traditional educational methods.

**Recommendation 18: Rapidly develop and deploy automation-insulated and AI-relevant vocational training.** The Department of Labor, primarily through the Employment and Training Administration, should increase investment in vocational training programs—including by supporting state-level efforts—and should pilot new

---

<sup>33</sup> The World Economic Forum is predicting that by 2030, AI will create ~170 million jobs and displace 92 million jobs. See The World Economic Forum (2025, January 7) *Future of Jobs Report 2025*. The World Economic Forum. Accessible via <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>

<sup>34</sup> Ibid, p. 21.

<sup>35</sup> The World Economic Forum is predicting that by 2030, AI will create ~170 million jobs and displace 92 million jobs. See The World Economic Forum (2025, January 7) *Future of Jobs Report 2025*. The World Economic Forum. Accessible via <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>

programs, both funded and developed in partnership with the private sector. The focus should be on jobs that are either likely to be resistant to automation, or complementary to AI-driven economic growth. These programs should be designed to continually incorporate the latest breakthroughs in AI-enhanced education as the technology advances. They should take inspiration from successful industry-driven apprenticeship programs like FAME USA, originally created by Toyota.<sup>36</sup>

**Recommendation 19: Upskill the federal workforce.** For the government to be efficient and effective in fast-changing conditions, millions of federal employees will need to acquire new skills quickly. Agencies’ Chief AI Officers should solicit proposals to overhaul internal training and education—both to increase workers’ AI literacy, and to integrate AI into the full spectrum of human capital development.

**H. Reliable AI for Nationwide Adoption.** Businesses will only fully embrace AI once it can reliably avoid major errors. Transformative levels of adoption will require new breakthroughs in the science of AI reliability, but it is not guaranteed that those breakthroughs will come from the U.S. China’s new AI safety institute equivalent, CNAISDA, is staffed by top talent and shows that China is applying serious effort in this domain.<sup>37</sup> In order to achieve worldwide adoption, U.S. AI must remain the global leader in reliability.

**Recommendation 20: Strengthen and focus AISI.** AISI should be funded to attract top technical talent and empowered to help the U.S. take a decisive lead in this field. Without reliability, AI cannot achieve transformative impact. Trustworthy AI is a nonpartisan research goal.

**Recommendation 21: Establish a system for voluntary AI incident reporting.**<sup>38</sup> Frontier labs need a confidential channel for sharing information with policymakers about dangerous or harmful behavior by AI. This can promote proactive risk mitigation in industry, and give the government concrete evidence that informs decisions about how to keep Americans safe.

**Recommendation 22: Protect whistleblowers.** Big tech AI labs operate in great secrecy. Employees who report dangerous activities through proper channels should be protected as whistleblowers, even if that activity is not clearly illegal. Setting up these channels and protecting those who report will incentivize labs to police themselves. A useful model for

---

<sup>36</sup> Federation for Advance Manufacturing Education (n.d.) *About Us: The New American Model of Manufacturing Skills Training*. <https://fame-usa.com/fame-program-for-manufacturers-copy-2/>

<sup>37</sup> China AI Safety & Development Association (n.d.). *Experts*. [https://cnaisi.cn/gywm\\_01171445\\_559\\_01171456\\_131](https://cnaisi.cn/gywm_01171445_559_01171456_131)

<sup>38</sup> Croxton, J. et al. (2024, June 25). *Message Incoming: Establish An AI Incident Reporting System*. Federation of American Scientists. <https://fas.org/publication/establishing-an-ai-incident-reporting-system/>

confidential reporting and whistleblower protection in a high-stakes field is the Nuclear Regulatory Commission's Allegations Program.<sup>39</sup>

**I. Accelerating AI Infrastructure.** In contrast to previous AI software which was programmed by humans, today's deep learning AI learns on its own, powered by mountains of data and staggering amounts of computing power. This means that AI progress largely depends on labs' ability to scale up the infrastructure needed to perform hyper-scale computation. Responsibly accelerating this expansion will take a national-level effort spanning AI labs themselves, chipmakers and other high-tech manufacturing companies, construction firms, utilities, and government regulators.

**Recommendation 23: Implement permitting reform across AI infrastructure**

**categories.** Maintaining U.S. leadership in AI requires expansion of physical infrastructure much faster than traditional permitting processes have allowed. Fortunately, there is a bipartisan consensus supporting reforms to streamline this permitting.<sup>40</sup> The Trump Administration should implement these reforms across the full spectrum of AI-relevant infrastructure—not just data centers and electricity generation, but also semiconductor fabs, power transmission infrastructure, and factories for data center equipment.

**Recommendation 24: Facilitate state and local reforms.** Many of the bureaucratic frictions slowing AI infrastructure development are not under federal control. The Administration should use the convening power of the White House to bring industry together with state-level and local policymakers to find mutually acceptable regulatory reforms. Executive Branch regulators should develop model permitting guidance to help states and cities harmonize their efforts.

**J. Attracting and Retaining AI Talent.** While smarter AI systems are generally getting easier to use without special training, AI literacy is not the same as AI expertise. For our government to adequately serve the American people, and to maintain its advantages over strategic rivals, agencies need the technical talent to anticipate new developments and plan based on future AI capabilities.

**Recommendation 25: Hire the best and brightest.** Every agency needs the personnel to understand how AI diffusion across society will impact its mission, and also know how to rapidly procure and adopt new AI technology to improve its performance. Hiring across the government should prioritize high-level AI talent, offering salaries designed to attract

---

<sup>39</sup> United States Nuclear Regulatory Commission (n.d.). *Allegations*.

<https://www.nrc.gov/about-nrc/regulatory/allegations-resp.html>

<sup>40</sup> Energy Permitting Reform Act of 2024, S.4753, 118th Cong. (2024).

<https://www.congress.gov/bill/118th-congress/senate-bill/4753>

those with private-sector alternatives. For example, law enforcement must stay ahead of criminals using AI, BIS must constantly update rules to keep up with industry advances and cat-and-mouse games with smugglers, and AISI must be able to advise other parts of government on frontier capabilities.

**Recommendation 26: Prioritize technical talent retention.** AI skills are in intense demand by the private sector, and if technical talent is laid off as part of general efficiency efforts, it will be difficult to recruit back. Any workforce reduction plans agencies implement should seek to minimize the impact on their AI competence.

## CONCLUSION

Americans for Responsible Innovation is grateful for the opportunity to highlight these urgent policy priorities as the Administration formulates its AI Action Plan. With the impacts of artificial intelligence accelerating across society, we have focused on concrete, actionable recommendations that can begin substantive implementation by the Executive Branch during the 2025 calendar year. As OSTP considers these recommendations, we warmly welcome any questions you may have and hope that this Comment can spark further dialogue with policymakers over the coming months.