Fathom

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Submitted by email to ostp-ai-rd-sp-rfi@nitrd.gov

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

INTRODUCTION

Fathom welcomes the decision to update the National Artificial Intelligence Research and Development Strategic Plan (2023 Update) with an emphasis on securing the position of the United States as the unrivaled world leader in artificial intelligence.

Fathom's inaugural public poll found a significant majority of voters – 65 percent – are concerned that the U.S. is no longer leading the world in technological innovation.[1] This substantial majority signals a departure from peacetime norms, where foreign affairs rarely poll so highly.[2] This striking indication of a nationwide desire for the U.S. to lead the world in AI has been reinforced repeatedly in the year since—not only in the rhetoric of politicians who are representing their constituents' concerns, but in myriad private conversations Fathom has had and facilitated at events like The Ashby Workshops. The American people understand, like so many in Washington, that losing the AI race to China is not an option.

Fathom's analysis suggests that lack of widespread domestic AI adoption remains a bottleneck for American innovation and competitiveness. The 2025 AI Index Report from the Stanford Institute for Human-Centered AI found that AI adoption is on the rise, with 78% of organizations saying they were using AI in 2024, up from 55% in 2023.[3] The depth of AI usage has also seen a notable increase, with roughly 36% of occupations using AI for at least 25% of

[1] Fathom.org, Fathom's Inaugural Report (July 2024). A*vailable at https://fathom.org/resources*.
[2] Statista Research Department, Most Important Issues for Adults in the United States as of February 2025 (February 2025). *Available at https://www.statista.com/statistics/1362236/most-important-voter-issues-us/*.
[3] Nestor Maslej et al, Artificial Intelligence Index Report 2025 (April 2025). *Available at https://arxiv.org/abs/2504.07139*.

their associated tasks.[4] Fathom's qualitative research tells a more nuanced story, however. Businesses, particularly those across regulated sectors like healthcare, energy, and financial services, remain deeply hesitant to systematically integrate AI into their workflows.

This reluctance stems from a chronic lack of transparency about both the benefits and risks of AI products. The General Counsel of a major hospital network explained to us earlier this year that their organization had been using AI to review and evaluate contracts, but realized that the AI tool in question was making similar recommendations on issues like indemnity clauses and executive compensation to other users.[5] This pattern raised serious concerns about the erosion of market competition and whether the standardization of contracts across competitors via an AI product could be considered an antitrust violation. But most concerning to the General Counsel was that they hadn't seen it coming: "we're lawyers; we don't know how to evaluate AI systems."[6] This example shows what we have heard across our conversations: AI creates legal uncertainty.

The 2025 AI Index Report found that companies have grown significantly more concerned about financial, brand and reputational, privacy, and reliability risks from AI in recent years.[7] Executives feel they're "wandering in the dark," and without an understanding of the potential behaviors and risks associated with AI products and the impact these may have on their businesses, they're reluctant to commit.[8]

This reluctance risks a stagnation in the pace of innovation. Widespread adoption facilitates positive feedback loops, where product managers test product-market fit, iterate on their product, resulting in increased demand, which in turn provides further opportunities to evaluate product-market fit, and so on. Evidence of increased demand also draws increased investment, adding further momentum to the cycle of innovation. Those are the ingredients for a healthy and growing American AI ecosystem that leads the world.

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[4] Anthropic, The Anthropic Economic Index (February 2025). *Available at* https://www.anthropic.com/news/the-anthropic-economic-index.

[5] Shared under Chatham House Rule at The Ashby Workshops (January 2025). For anonymized takeaways, *see* The Ashby Workshops 2025: Report Highlights (February 2025). *Available at* https://fathom.org/resources.

[6] Shared under Chatham House Rule at The Ashby Workshops (January 2025). For anonymized takeaways, *see* The Ashby Workshops 2025: Report Highlights (February 2025). *Available at* https://fathom.org/resources.

[7] Nestor Maslej et al, Artificial Intelligence Index Report 2025 (April 2025). *Available at* https://arxiv.org/abs/2504.07139.

[8] Shared under Chatham House Rule at The Ashby Workshops (January 2025). For anonymized takeaways, *see* The Ashby Workshops 2025: Report Highlights (February 2025). *Available at* https://fathom.org/resources.

RECOMMENDATIONS

Fathom recommends Strategy 6: Measure and Evaluate AI Systems Through Standards and Benchmarks of the National Artificial Intelligence Research and Development Strategic Plan (2023 Update) be rewritten to prioritize the development and standardization of testing methods and metrics necessary to encourage the widespread dissemination and penetration of AI across regulated industries.

In particular, the United States should:

- **Provide assurances and build consumer trust in AI by enabling measurements and evaluations of AI performance through industry-specific benchmarks, standards, and audits.** This would allow regulated industries to verify that AI systems meet critical objectives for functionality and reliability as well as anticipate and mitigate possible failure modes.
- **Pilot third-party verification bodies to certify AI platforms' compliance with federal laws and regulations.** This would provide regulated sectors with the legal clarity they require to adopt and innovate with AI products, enabling further innovations in the technology sector in turn.

CONCLUSION

Losing the AI race to China is not an option – and yet, U.S. leadership looks to be at risk. The release of DeepSeek's reasoning model R1 earlier this year indicates that China has narrowed the AI development gap with the United States to just three months in some areas, and perhaps pulled ahead in others.[9] China's chip industry also appears to be gaining ground:[10] Huawei argues its newest Ascend 910C chip is comparable to Nvidia's Blackwell chips, and the Trump Administration's Bureau of Industry and Security's latest announcement cracking down on worldwide use of Ascend chips can be read as a tacit acknowledgement of their relative capability.[11] Unlike the United States, China can simply direct the diffusion and adoption of its AI products domestically. The 2025 National Artificial Intelligence Research and Development Strategic Plan must therefore encourage public trust in AI to ensure its widespread dissemination across regulated industries, powering innovation and ensuring that the United States remains *the* world-leading technological powerhouse in turn.

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9 https://www.reuters.com/technology/artificial-intelligence/deepseek-narrows-china-us-ai-gap-three-months-01ai-founder-lee-kai-fu-says-2025-03-25/

10 https://www.economist.com/business/2025/05/08/huawei-and-other-chinese-chip-firms-are-catching-up-fast

11 https://www.tomshardware.com/tech-industry/artificial-intelligence/huawei-already-has-a-new-chip-to-rival-nvidia-ai-gpus

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