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**Submitted in my capacity as private citizens:**

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# **Strategic AI Action Plan for Sustaining U.S. AI Dominance-DOMINATE AI**

**DOMINATE-AI: Developing Opportunities for Maintaining Innovation, Nurturing Advanced Technology and Excellence in AI**

America's leadership in artificial intelligence (AI) is a cornerstone of economic competitiveness, national security, and technological progress. As global rivals invest heavily in AI – China has declared its aim to lead the world in AI by 2030 – the United States must take bold, strategic actions to maintain its edge. This **AI Action Plan** outlines priority policy steps to strengthen U.S. AI capabilities while avoiding overregulation that could stifle innovation. By focusing on core infrastructure, talent and R&D, responsible governance, and partnerships, the U.S. can foster AI advancement in the private sector and public sector alike. The goal is to create a flourishing AI ecosystem that drives economic growth and protects national security, without burdening innovators with unnecessary red tape.

The stakes of this competition cannot be overstated. AI is not merely another technological domain but a foundational capability that will reshape industries, redefine military advantage, and potentially reconfigure global power structures. Nations that master AI will enjoy unprecedented economic benefits through productivity gains, new industries, and technological breakthroughs. They will also possess decisive advantages in military capabilities, intelligence gathering, and critical infrastructure resilience. The first-mover advantages in AI development are substantial, as leadership creates self-reinforcing cycles of talent attraction, data accumulation, and computing resource concentration.

The United States currently holds significant advantages in AI research, talent, and commercial applications. However, this lead is not guaranteed to persist without coordinated policy action. China's whole-of-nation approach to AI development, backed by substantial state investments and a strategic vision extending decades into the future, presents a formidable challenge. Other nations including the United Kingdom, Canada, France, and South Korea are also making significant investments in AI capabilities. The time for strategic action is now – before competitive advantages are eroded and opportunities for establishing durable U.S. leadership are lost.

This plan – **Developing Opportunities for Maintaining Innovation, Nurturing Advanced Technology and Excellence in AI (DOMINATE-AI)** – represents a comprehensive blueprint for securing America's position at the forefront of the global AI revolution.

It is organized into three major sections:

1. **Priority Policy Actions** – The seven highest-impact initiatives that should be undertaken immediately to secure U.S. AI leadership.
2. **Strategic Guiding Principles** – The core philosophies that should shape all U.S. government actions related to AI development and governance.
3. **Key Policy Areas and Recommendations** – Detailed recommendations across fifteen critical domains, from hardware infrastructure to international engagement.

By implementing this ambitious yet achievable agenda, the United States can ensure that the most powerful technology of our era develops in alignment with American values, interests, and leadership.

## **Priority Policy Actions (By Impact)**

To secure America's AI dominance, certain policy actions stand out as having the highest impact on U.S. technological leadership, economic vitality, and security. These top priorities should be pursued immediately:

1. **Reinvigorate Domestic Semiconductor Manufacturing:** Invest in U.S. chip fabrication capacity for AI. Expand funding (e.g. >\$30B) to build state-of-the-art semiconductor fabs and incentivize R&D in advanced AI chips. Reducing reliance on foreign chip suppliers will safeguard the "engines" of AI innovation and protect supply chains.
2. **Double Federal AI R&D Funding:** Dramatically increase AI research investments through NSF, DARPA, DOE and others. A national commission called for doubling non-defense AI R&D to \$36 billion by 2026. This investment will spur breakthroughs, support academic and industry labs, and ensure the U.S. remains the global hub of AI advancements.
3. **Establish a National AI Strategy and Leadership Council:** Create a high-level White House-led council (akin to a Technology Competitiveness Council) to develop and implement a comprehensive national AI strategy. This ensures coordinated efforts across government agencies, aligning R&D, workforce, regulatory, and security initiatives under a unified vision for AI leadership.
4. **Build the AI Talent Pipeline:** Address the AI workforce shortage by launching ambitious education and immigration initiatives. Establish a U.S. Digital Service Academy and National AI Reserve Corps to train AI practitioners for government. Pass a "National Defense Education Act II" to fund STEM scholarships in AI fields. Streamline visas to attract top international AI talent. Human capital is the bedrock of innovation.
5. **Adopt Light-Touch, Risk-Focused Regulation:** Avoid heavy-handed AI regulations that could hamstring innovation. Instead, focus on mitigating clear, demonstrable harms

(e.g. safety-critical failures, fraudulent misuse) and use a risk-based approach. Current evidence does not support broad restrictions on AI models, especially open-source models. Policymakers should target real threats while enabling experimentation and growth.

6. **Promote Public-Private Partnerships in AI:** Leverage collaboration between government, industry, and academia for AI development. For example, co-invest in AI testbeds and innovation centers, expand NSF's AI Institutes to 30 or more nationwide, and launch joint ventures in areas like AI for healthcare, cybersecurity, and climate. These partnerships will accelerate deployment of AI solutions and ensure critical sectors benefit from AI.
7. **Protect National Security with AI Leadership:** Integrate AI into defense and intelligence to outpace adversaries. Dedicate at least 3.4% of the DoD budget to science and technology (with \$8B+ annually for AI R&D). Rapidly field AI applications in areas like intelligence analysis, autonomous systems, and cyber defense – guided by ethical principles – to maintain a strategic military advantage. Strengthen export controls to deny adversaries the most advanced AI chips and tools.

## Strategic Approach: Guiding Principles

Achieving these goals requires a strategic approach that balances support and oversight. The following principles will guide U.S. AI policy implementation:

- **Foster Innovation through Deregulation (When Appropriate):** The government will favor light-touch regulatory frameworks that do not unnecessarily hinder AI research and entrepreneurship. Instead of rigid rules, agencies will issue flexible guidance and voluntary standards to address risks. This approach encourages agile development in the private sector and lets beneficial AI applications reach the market faster.
- **Public-Private Partnerships:** Collaboration is key to advancing AI. Federal agencies will partner with tech companies, startups, universities, and non-profits to share expertise and resources. Joint R&D programs and co-funded innovation hubs will tackle grand challenges in AI.
- **Strengthen Critical Industries and Infrastructure:** The U.S. will reinforce industries that form the foundation of AI capability. This includes revitalizing semiconductor manufacturing through the CHIPS and Science Act and beyond, so America can produce the most advanced AI chips domestically.
- **AI-Enabled Infrastructure and Self-Sufficiency:** The government will proactively deploy AI to modernize American infrastructure and operations. Domestic capability in AI – from talent to tooling – is treated as a strategic asset.
- **Responsible and Ethical AI Development:** While promoting innovation, the U.S. will champion technical standards and best practices for safe, trustworthy AI. Agencies will implement the NIST AI Risk Management Framework to balance innovation with risk mitigation. Ethical principles will be woven into AI projects.

# Key Policy Areas and Recommendations

## 1. Hardware and Chips

**Importance:** Advanced hardware (semiconductors, GPUs, specialized AI accelerators) is the backbone of AI progress. Nearly all cutting-edge AI chips today are manufactured abroad, which leaves the U.S. vulnerable to foreign competitors in this critical domain. Ensuring a secure supply of high-performance chips and developing next-generation computing technologies are national priorities.

### Recommendations:

- **Boost Domestic Semiconductor Manufacturing:** Fully implement and expand the CHIPS and Science Act to support new U.S. fabs for logic and memory chips used in AI. Provide grants, tax incentives, and other subsidies for companies building state-of-the-art fabs on U.S. soil.
- **Increase Chip R&D Funding:** Allocate sustained R&D funding (at least \$1B+ annually) for novel AI-focused hardware architectures.
- **Secure the Supply Chain:** Use export controls and trade policy to protect U.S. access to semiconductor manufacturing equipment and to deny adversaries the most advanced chips.
- **Support Chip Design Leadership:** Encourage U.S. companies to lead in AI chip design through R&D tax credits and IP protection.
- **Leverage Defense Demand:** Use the Pentagon's purchasing power to catalyze the U.S. microelectronics industry.

## 2. Data Centers and Energy Efficiency

**Importance:** Modern AI development depends on massive computing power delivered by data centers and cloud computing facilities. The surge in AI workloads has sent data center energy consumption skyrocketing, raising cost and sustainability concerns. Ensuring plentiful, efficient data center capacity in the U.S. is essential for AI dominance.

### Recommendations:

- **Expand AI-Optimized Cloud Infrastructure:** Facilitate the development of large-scale, AI-focused data centers in the U.S. through incentives and streamlined permits.
- **Promote Energy Efficiency Innovations:** Launch a "Green AI Data Center" initiative to drive improvements in efficiency. This can include DOE grants for R&D in advanced cooling, waste-heat reuse, and AI-driven energy management.
- **Use Renewable Energy and Grid Integration:** Encourage new data centers to co-locate with renewable energy sources or purchase green power to offset their footprint.
- **Manage Water and Environmental Impact:** Develop guidelines for sustainable water use and alternative cooling.
- **Government as Catalyst User:** The federal government should adopt AI-efficient cloud services.

### **3. AI Model Development and Open-Source Ecosystem**

**Importance:** Rapid progress in AI depends on a robust ecosystem for developing, training, and deploying AI models. Open-source software (OSS) has been a driving force in AI – most major breakthroughs build on open libraries and shared knowledge. The open-source AI ecosystem underpins innovation and competition, lowering barriers to entry for researchers and companies.

#### **Recommendations:**

- **Support Open-Source AI Frameworks and Models:** Fund and contribute to community-driven AI software.
- **Encourage Responsible Open-Source Practices:** Establish best practices and voluntary guidelines to mitigate risks rather than banning open models.
- **Deter Malicious Use of AI Models:** Focus laws on acts of malice rather than on the technology itself.
- **Fund Next-Generation Model Research:** Ensure sustained federal research funding for fundamental advances in AI algorithms.
- **Open Data and Compute Resources:** Open non-sensitive datasets for AI training and establish a national AI compute resource.

### **4. Application of AI in Private Sector and Government**

**Importance:** Harnessing AI's potential requires widespread adoption of AI applications across the economy and within government. U.S. companies are rapidly integrating AI to boost productivity, and the federal government can dramatically improve services and efficiency by deploying AI in various areas.

#### **Recommendations:**

- **Empower Industry Adoption with Incentives:** Implement tax incentives or credits for companies (especially SMEs) that invest in AI solutions.
- **Sector-Specific AI Initiatives:** Launch public-private initiatives tailored to key industries to accelerate AI deployment.
- **Government as an AI User and Innovator:** Federal agencies should identify processes that AI can streamline and pursue pilot projects.
- **Modernize Procurement and Acquisition:** Revamp federal procurement rules to better accommodate fast-evolving AI technologies.
- **Support Small Business and Startup Integration:** Expand programs like SBIR grants focused on AI and create an "AI Small Business Accelerator."

## 5. Explainability, Trust, and Assurance of AI Systems

**Importance:** As AI systems become more embedded in high-stakes decisions, it is crucial to ensure they are understandable, trustworthy, and aligned with human values. Explainability and assurance measures are key to building public trust.

### Recommendations:

- **Develop and Adopt Explainability Standards:** Charge NIST to develop standards for AI explainability and interpretability.
- **Certification and Testing for High-Risk AI:** For AI applications deemed "high-risk," establish assurance testing requirements.
- **Implement the AI Bill of Rights Principles:** Encourage organizations to voluntarily adopt the Blueprint for an AI Bill of Rights principles.
- **Advance AI Safety Research:** Increase funding for research in AI safety and alignment.
- **Transparency in Government AI Use:** Require federal agencies to maintain an inventory of AI systems in use and publish transparency reports.

## 6. Cybersecurity of AI and AI for Cybersecurity

**Importance:** AI systems present new cybersecurity challenges even as they offer powerful tools for defense. Ensuring security across the AI lifecycle is vital so that AI isn't a weak link in systems.

### Recommendations:

- **Secure AI Supply Chain and Lifecycle:** Develop guidance on securing training data pipelines and safeguarding trained models.
- **Adversarial AI Research and Standards:** Invest in R&D to harden AI models against adversarial attacks.
- **Protect AI Models and Data as Sensitive Assets:** Clarify and possibly enhance legal protections around AI models.
- **AI for Cyber Defense:** Accelerate adoption of AI-driven cybersecurity tools in government.
- **Training and Workforce:** Equip cybersecurity professionals with AI skills and vice versa.

## 7. Data Privacy and Security in the AI Era

**Importance:** AI thrives on data – often personal data – which raises significant privacy concerns. Establishing trust in how data is handled across the AI lifecycle is essential for public acceptance of AI and for ethical alignment.

### Recommendations:

- Enact a Federal Data Privacy Law: Expedite bipartisan efforts to pass a national data privacy framework.
- Privacy by Design in AI: Encourage and/or require that AI systems incorporate privacy-preserving techniques.
- Data Governance and Sharing Frameworks: Develop frameworks that allow beneficial data sharing for AI innovation in a privacy-enhancing way.
- Security of Data for AI: Treat large training datasets as critical assets that require stringent cybersecurity.
- Empower Individuals: Implement measures to give people more control and visibility.

## 8. Mitigating AI-Related Risks and Ethical Concerns

**Importance:** Alongside its benefits, AI brings a spectrum of risks – from disinformation and bias to job displacement and autonomous weaponization. Governance mechanisms need to be forward-looking and inclusive of ethical considerations.

### Recommendations:

- Address Bias and Civil Rights Impacts: Strengthen measures to prevent AI from entrenching bias.
- Combat AI-Generated Misinformation: Develop a national strategy for countering malicious deepfakes and AI-driven disinformation campaigns.
- Workforce Transition and Economic Disruption: Anticipate the labor market impacts of AI automation and provide support.
- Ethical Frameworks for Autonomous Systems: For AI applications that could make life-and-death decisions, insist on human oversight and clear ethical guidelines.
- Public Engagement and Transparency: Create forums for public input on AI deployment, especially in communities likely to be affected.

## 9. Regulation and Governance

**Importance:** The regulatory environment will significantly influence AI innovation and adoption. The challenge is to craft governance structures that protect the public and national interests without smothering innovation.

### Recommendations:

- **Adopt a Risk-Based Regulatory Approach:** Focus oversight on high-risk applications, with minimal oversight for low-risk AI uses.
- **Clarify Liability and Accountability:** Update legal frameworks to clarify who is accountable when an AI system causes harm.
- **Federal-State Coordination:** Prevent a confusing patchwork of state AI rules by exploring federal preemption in certain areas.
- **Empower a Coordinated Governance Body:** Establish a White House-led coordinating council for AI.
- **Leverage Existing Regulatory Agencies:** Equip existing agencies with AI expertise rather than creating a new AI regulator.
- **Voluntary Governance and Ethics Programs:** Support the creation of voluntary certification programs or industry-led governance initiatives.

## 10. National Security and Defense Applications

**Importance:** AI is poised to revolutionize military and intelligence operations – whoever masters AI for defense will gain a significant strategic advantage. The U.S. must integrate AI across the Department of Defense (DoD) and Intelligence Community (IC).

### Recommendations:

- **Rapidly Field AI Capabilities in DoD:** Move beyond research and pilot projects to deployment of AI solutions for priority operational problems.
- **Invest in Defense AI R&D at Scale:** Increase the defense AI R&D budget in line with recommendations.
- **Strengthening Talent Pipelines into Defense:** Expand initiatives to bring AI talent into the Pentagon and IC.
- **Ethical AI in Warfare:** Implement the DoD's ethical AI principles in all defense AI projects.
- **Intelligence and Counter-AI:** Equip intelligence agencies with cutting-edge AI and invest in capabilities to detect and counter adversary AI systems.
- **Allied Collaboration:** Work closely with allies on defense AI development projects and interoperability standards.

## 11. Research, Development, and Innovation Ecosystem

**Importance:** Long-term U.S. leadership in AI depends on sustaining a vibrant R&D ecosystem. The federal government has historically played a key role in funding basic research that industry may not invest in.

### Recommendations:

- Increase Federal Funding for AI R&D: Ensure significant growth in AI R&D funding across agencies.
- Focus on Interdisciplinary Research: Encourage collaboration between AI and other fields (AI+ Other fields(X)).
- Strengthen University-Industry Collaboration: Expand programs that facilitate two-way flow between academia and industry.
- Support Startups and Regional Innovation: Nurture the AI startup ecosystem through grants and incubator programs.
- Intellectual Property Clarity for AI Innovations: Update IP policies to encourage AI innovation.
- Metrics and Tracking of Innovation: Track key indicators of the AI innovation ecosystem.

## 12. Education and Workforce Development

**Importance:** The rise of AI is transforming job skills requirements. To maintain leadership, the U.S. needs a workforce that is AI-skilled at all levels.

### Recommendations:

- Integrate AI and Coding in K-12: Incorporate computer science and basic AI literacy in K-12 curricula.
- Expand Higher Education Capacity in AI: Increase funding for universities to create or grow AI-related programs.
- Upskilling and Reskilling the Current Workforce: Launch a national initiative for AI skills training.
- Attract and Retain Global Talent: Remove immigration barriers for highly skilled AI professionals.

### **13. Intellectual Property in the AI Age**

**Importance:** Intellectual property laws play a significant role in AI innovation. They must strike a balance between protecting genuine innovation and allowing knowledge diffusion.

**Recommendations:**

- Clarify AI Inventorship and Ownership: Provide guidance on patenting AI-related inventions.
- Protect AI Algorithms and Models as Trade Secrets: Encourage companies to use trade secret law to guard their AI models when appropriate.
- Fair Use and Training Data: Clarify that using data for training AI models falls under fair use under appropriate circumstances.
- International IP Alignment: Work with allies to harmonize approaches to AI and IP.
- Prevent Patent Thickets and Anticommons: Monitor patenting in AI to prevent dense overlapping patents that make innovation difficult.

### **14. Government Procurement of AI Technologies**

**Importance:** The U.S. government is the largest purchaser of goods and services in the world. How it chooses to procure AI technology will influence the market and the government's own modernization.

**Recommendations:**

- Streamline Acquisition for AI: Create dedicated procurement pathways for emerging technologies.
- Prototype then Scale: Emphasize pilot projects and prototypes in contracts.
- Embed AI Requirements Smartly: Include requirements for transparency, auditability, and cybersecurity.
- Increase Procurement Workforce Capacity: Train procurement officers on AI and other emerging tech.
- Small Business and Non-Traditional Vendor Inclusion: Make it easier for startups and small innovative firms to bid on government AI projects.

## 15. International Collaboration and Competition

**Importance:** AI is a global enterprise. International collaboration can amplify benefits, while strategic competition – particularly with nations like China – is a defining feature of this era.

### Recommendations:

- **Forge an Alliance on AI Ethics and Governance:** Build a coalition of democratic nations committed to responsible AI development.
- **Collaborative Research Initiatives:** Launch multinational AI research projects to solve global challenges.
- **Trade and Export Coordination:** Coordinate export controls on critical AI technologies with allies.
- **Standards and Norms Diplomacy:** Advocate for frameworks that emphasize human rights, transparency, and security in AI.
- **Monitor Adversaries and Protect Strategic Advantages:** Increase intelligence efforts to understand adversaries' AI capabilities.
- **International Crisis Stability:** Initiate dialogues on AI in military contexts to avoid inadvertent escalation.

## Conclusion

The United States stands at a pivotal moment in the global AI race. This Strategic AI Action Plan has outlined a comprehensive set of policy actions – spanning infrastructure, innovation, governance, security, and talent – to sustain and enhance U.S. AI dominance. By acting on all these fronts in a coordinated and prioritized way, America can secure its leadership in AI for the coming decades, ensuring that technology develops in line with our nation's interests and ideals.

The Plan's emphasis on deregulation and partnerships will unleash private sector creativity, allowing startups and established firms to push the envelope of AI without undue hurdles. At the same time, investments in critical hardware, research, and education will lay the foundation for long-term leadership, much as past federal investments gave rise to the Internet and Silicon Valley. By strengthening semiconductor manufacturing, data center capacity, and the AI workforce, the U.S. addresses the "building blocks" of AI competitiveness head-on.

Crucially, this plan couples innovation with responsibility. It puts forward measures for explainability, risk mitigation, privacy, and ethics that ensure AI systems are worthy of the public's trust and reflect American values. Through smart standards and light-touch governance focused on high-risk areas, the U.S. can guard against the pitfalls of AI (bias, insecurity, misuse) without smothering beneficial development. America's leadership will thus be defined not only by having the most advanced AI, but the most trusted and responsibly used AI – a competitive advantage in itself.

# Implementation Timeline and Milestones

For the DOMINATE-AI plan to succeed, a clear timeline with measurable milestones is essential:

## Short-term (1-2 years):

- Establish the White House AI Leadership Council to coordinate national strategy
- Launch the initial phase of expanded semiconductor manufacturing incentives
- Begin doubling federal AI R&D funding through existing agencies
- Implement immediate immigration reforms to attract and retain top AI talent
- Develop preliminary guidance on risk-based, light-touch regulation
- Deploy initial AI applications in at least five high-impact areas of government

## Medium-term (3-5 years):

- Achieve operational status for at least ten new U.S.-based semiconductor fabrication facilities
- Expand NSF AI Institutes to at least 30 nationwide
- Establish the U.S. Digital Service Academy with first cohort of AI specialists
- Complete comprehensive AI workforce training programs in all 50 states
- Implement interagency ethical AI frameworks across all departments
- Secure international agreements with at least 15 allied nations on AI standards and export controls

## Long-term (5-10 years):

- Position the U.S. as the global leader in AI chip design and manufacturing
- Train more than 500,000 AI-skilled workers across education levels
- Develop next-generation AI models and architectures that set global standards
- Establish dominant U.S. capabilities in AI-enabled national security systems
- Create self-sustaining innovation ecosystems in multiple regions across the country
- Demonstrate measurable economic benefits from AI adoption across all major industries

# Overcoming Implementation Challenges

Executing this ambitious agenda will inevitably face challenges that must be anticipated and addressed:

**Resource Constraints:** The substantial investments recommended in this plan will compete with other national priorities. This can be addressed by emphasizing the cross-cutting benefits of AI investments, identifying public-private funding models, and articulating clear returns on investment.

**Bureaucratic Resistance:** Government agencies may resist change or compete for jurisdiction over AI initiatives. Strong executive leadership, clear accountability metrics, and incentives for cooperation can help overcome institutional inertia.

**Technical Complexity:** The rapid evolution of AI technology can outpace policy development. This plan addresses this challenge by favoring adaptable frameworks over rigid rules and by embedding technical expertise throughout the policymaking process.

**International Competition:** Adversaries will respond to U.S. initiatives with their own countermeasures. The plan's emphasis on collaboration with allies creates a stronger coalition to maintain democratic leadership in AI development.

**Public Acceptance:** Concerns about AI's impact on jobs, privacy, and society could create resistance. The plan's emphasis on responsible development and human-centered applications is designed to build public trust and broader support.

## **A Whole-of-America Approach**

The DOMINATE-AI plan calls for a whole-of-America approach that mobilizes all sectors of society:

**Government** will provide strategic direction, funding for basic research, infrastructure support, and appropriate governance frameworks.

**Industry** will drive innovation, commercialize breakthroughs, create AI applications, and generate economic value.

**Academia** will conduct fundamental research, educate the next generation of talent, and provide independent assessment of societal impacts.

**Civil Society** will help ensure AI development aligns with public values, identify emerging concerns, and represent diverse stakeholder interests.

By aligning these sectors toward the common goal of American leadership in AI, the United States can harness its unique strengths – entrepreneurial spirit, world-class universities, innovative companies, and democratic values – to secure decisive advantages in the AI era.

The future of American prosperity, security, and global influence will be shaped significantly by our success in artificial intelligence. With the DOMINATE-AI plan as a roadmap, deliberate execution of these recommendations, and the combined efforts of government, industry, and civil society, the United States will not only participate in the AI revolution – it will lead it, ensuring that the most powerful technology of our time develops in accordance with American values and interests.

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