

# PUBLIC SUBMISSION

**Received:** May 07, 2025  
**Tracking No.** mad-s22y-ktf3  
**Comments Due:** May 28,  
2025 **Submission Type:** Web

**Docket:** NSF-2025-OGC-0001  
NITRD\_FRDOC\_0001

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

**Document:** NSF-2025-OGC-0001-DRAFT-0057  
Comment on FR Doc # 2025-07332

---

## Submitter Information

**Organization:** Cyquent, Inc

---

## General Comment

### 1. Comment on Coordination (Make Long-Term Investments in AI Research)

We recommend increased investment in interdisciplinary AI research centers that include social sciences, ethics, and public policy experts to ensure technological development aligns with democratic values and societal needs.

### 2. Comment on Ethical AI (Understand and Address the Ethical, Legal, and Societal Implications of AI)

The Plan should explicitly support the development of practical tools and guidelines for responsible AI adoption, including mechanisms to audit, explain, and mitigate bias in AI systems, especially those deployed in high-stakes domains like health, criminal justice, and hiring.

### 3. Comment on Public Sector Innovation (Expand Public-Private Partnerships to Accelerate Advances in AI)

We encourage the Plan to strengthen public-private partnerships focused on public-sector use cases, such as AI for public health, environmental sustainability, or equitable access to social services. Agencies should be equipped to adopt AI responsibly and transparently.

### 4. Comment on Workforce Development (Train an AI-Ready Workforce)

A critical area needing further investment is reskilling and upskilling the existing government workforce in AI fundamentals, governance, and ethical use. This would ensure AI is adopted with competence and accountability in federal and state agencies.

### 5. Comment on Data and Infrastructure (Develop Effective Methods for Human-AI Collaboration)

There is a need to expand access to high-quality, diverse, and representative datasets, especially for small businesses, startups, and nonprofits. The plan should also emphasize building shared AI testbeds and simulation environments to democratize access to experimentation.

### 6. Comment on International Collaboration

Given the global nature of AI research and its implications, the U.S. should promote greater international collaboration on AI safety, governance, and standards-setting, particularly with democratic allies and emerging economies.

---

## Attachments

Cyquent\_NSF AI - RFI Response

List of Comments



**Office of Science and Technology Policy (OSTP)  
Networking and Information Technology Research and Development  
(NITRD)  
National Coordination Office (NCO)  
Development of a 2025 National Artificial Intelligence (AI) Research  
and Development (R&D) Strategic Plan**

**Docket ID No. NSF-2025-OGC-0001**

**RFI Response**

**Date of Submission: 11:59 p.m. (ET) on May 29, 2025**



**CYQUENT**

**Submitted To:**

Networking and Information Technology  
Research and Development (NITRD)  
National Coordination Office (NCO)  
National Science Foundation (NSF)  
<https://www.regulations.gov>

**Submitted By:**

Niraj Jagasia  
Cyquent, Inc.  
Address: 155 Gibbs St., Suite 531  
Rockville, MD 20850



**RESTRICTION ON DISCLOSURE AND USE OF DATA**

This document is approved for public dissemination. The document contains no business-proprietary or confidential information. Document contents may be reused by the government in developing the 2025 National AI R&D Strategic Plan and associated documents without attribution.



---

## Table of Contents

1	Executive Summary .....	1
2	Our Capability .....	2
2.1	Cyquent’s Role in Advancing AI Research & Development .....	2
2.2	AI-Powered Use Cases Supporting Public Sector Health & Human Services .....	2
2.3	Long-Term AI Investments .....	3
2.4	AI Safety and Security .....	3
2.5	Human-AI Collaboration & AI Workforce Development .....	3
2.6	Public-Private Partnerships .....	3
2.7	AI for Societal Challenges .....	4
2.8	Commitment to Federal Collaboration & AI Leadership .....	4
2.9	Conclusion .....	4

## 1 Executive Summary

Cyquent, Inc., a Maryland-based leader in digital transformation with over two decades of experience, provides high-impact IT and AI solutions to public sector clients. We are proud to support the evolution of the National Artificial Intelligence Research and Development (AI R&D) Strategic Plan through transformative public-sector AI solutions and responsible innovation. As a leading technology provider with a specialized AI Center of Excellence (COE), Cyquent is driving AI automation, cybersecurity, ethical governance, and workforce development advancements that align with the federal government's vision for secure, equitable, and scalable AI. Led by our Chief AI Officer, Dr. Atif Farid Mohammad, a seasoned AI pioneer with extensive technical and R&D experience, Cyquent develops autonomous AI systems that tackle healthcare challenges with precision, security, and adaptability.

### Key Differentiators

- **AI Center of Excellence (COE):** A dedicated innovation hub advancing AI automation, cybersecurity, and ethical AI for public sector transformation.
- **Cyquent AI Academy:** Specialized training programs for federal executives and industry partners to promote AI literacy and responsible adoption.
- **Proven Public Sector Impact:** Demonstrated success in delivering AI-powered solutions for HHS ONC, State of Georgia, State of Maryland, and Montgomery County.
- **Real-World RAG Implementations:** Deployed retrieval-augmented generation systems for decision support in child welfare, procurement, compliance, and rural services.
- **Ethical & Secure AI Design:** AI systems built with fairness, transparency, bias mitigation, and full alignment with federal cybersecurity and privacy standards.
- **Workforce Development Focus:** Enabling a future-ready government workforce through training, upskilling, and human-AI collaboration tools.
- **Strategic Public-Private Collaboration:** Active partnerships with academia, government, and industry to drive scalable, mission-aligned AI innovation.

Our work directly supports the goals outlined in previous federal AI strategies by applying AI in mission-critical areas such as health and human services, national security, and economic resilience. Through long-standing partnerships with agencies including the U.S. Department of Health and Human Services (HHS), Office of the National Coordinator for Health (ONC), the State of Georgia, and the State of Maryland, Cyquent has delivered AI-powered solutions that enhance government decision-making, streamline compliance, and improve service outcomes. Our flagship retrieval-augmented generation (RAG) systems demonstrate real-world AI applications, ranging from child welfare case support in Virginia and North Dakota to institutional memory and policy compliance systems in Montgomery County, MD.

At the heart of our approach is Cyquent AI Academy, which empowers federal executives and industry partners with training on responsible AI adoption. We champion AI literacy, safety, and public-private collaboration to cultivate a future-ready federal workforce. Our AI COE ensures all innovations are developed with fairness, transparency, and adherence to federal data protection standards, reinforcing public trust.

Cyquent's commitment extends beyond technology deployment. We actively support foundational AI research, contribute to refining national AI strategy, and engage in public-private partnerships to accelerate innovation. With practical expertise, strategic alignment, and demonstrated impact,



Cyquent stands ready to partner with NITRD, OSTP, and other stakeholders to ensure the United States remains a global AI leader—ethically, securely, and inclusively.

## **2 Our Capability**

At Cyquent Inc., we recognize that artificial intelligence (AI) is the driving force behind national security, economic growth, and technological innovation. As part of our commitment to advancing responsible AI research and development, Cyquent has established a dedicated AI Center of Excellence (COE)—an innovation hub focused on AI-driven automation, cybersecurity, ethical AI frameworks, workforce development, and transformative research.

Through our Cyquent AI Academy, we provide specialized training programs tailored for industry partners and government executives, ensuring that federal agencies are equipped with the knowledge and tools needed to navigate AI adoption responsibly and effectively. Additionally, Cyquent has built, and demoed AI-driven solutions specifically designed to support public sector health and human services agencies, showcasing the practical application of retrieval-augmented AI systems in government decision-making, compliance, and operational efficiency.

### **2.1 Cyquent’s Role in Advancing AI Research & Development**

Our expertise aligns with the key pillars of the previous National AI R&D Strategic Plan, reinforcing federal AI priorities and ensuring strategic innovation across government sectors. Additionally, Cyquent is already actively supporting key public sector agencies, including the U.S. HHS ONC, the State of Georgia, and the State of Maryland, where we are delivering AI-powered solutions for research, innovation, healthcare, policy modernization, and government efficiency.

### **2.2 AI-Powered Use Cases Supporting Public Sector Health & Human Services**

Cyquent has demonstrated practical AI applications through RAG systems designed for government agencies handling social services, child welfare, and procurement. Our AI-driven solutions empower agencies by reducing administrative burdens, strengthening policy compliance, and enabling intelligent decision-making:

1. **Montgomery County RAG (Institutional Memory & Governance)** – A retrieval-augmented generation system built for Montgomery County, MD, designed to support county government staff across social services, procurement, legal affairs, and compliance. The system serves as an intelligent assistant, retrieving historical case files, policy documents, and internal meeting notes, reducing inefficiencies caused by manual document navigation and fostering transparent, consistent decision-making.
2. **Virginia Family First RAG (Child Welfare & Prevention Services)** – A specialized AI tool designed for frontline caseworkers and policy professionals under the Family First Prevention Services Act (FFPSA) in Virginia. This system simplifies the complexities of child welfare law, funding eligibility, and placement protocols by providing real-time access to prevention plans, IV-E eligibility criteria, QRTP standards, and evidence-based service models, ensuring that agencies remain aligned with federal guidelines while serving families effectively.

3. North Dakota Family First RAG (Rural & Tribal Child Welfare Solutions) – A culturally informed AI assistant built for rural and tribal child welfare professionals in North Dakota. This system provides localized guidance for Title IV-E funding, tribal court protocols, and culturally relevant placement strategies, ensuring federally compliant, family-centered decision-making in underserved areas.

### **2.3 Long-Term AI Investments**

Cyquent is committed to advancing foundational AI research in machine learning, predictive analytics, and automation. Our efforts are led by our Chief AI Officer, who oversees our AI Center of Excellence (COE) with a dedicated team of AI specialists, data scientists, and engineers. Through strategic partnerships, we accelerate the development of next-generation AI applications that address critical government needs while actively supporting AI-driven solutions for HHS ONC, the State of Georgia, and the State of Maryland.

### **2.4 AI Safety and Security**

Cyquent is committed to ensuring that trust and security are the foundational principles guiding the adoption of artificial intelligence (AI) within federal agencies. By offering AI-powered cybersecurity solutions, Cyquent safeguards government entities from an array of digital threats, including cyber-attacks, fraudulent activities, and the emerging risks posed by adversarial AI. Our advanced technologies are designed to proactively identify and mitigate potential vulnerabilities, providing a robust defense mechanism that evolves with the ever-changing landscape of cyber threats. This commitment to security is paramount in protecting sensitive government information and maintaining the integrity of federal operations.

At the heart of Cyquent's mission is our Center of Excellence (COE), dedicated to developing AI systems that are not only robust but also free from bias and transparent in their operations. Aligning with stringent federal standards, our COE ensures that the AI solutions deployed across various sectors, including healthcare, government services, and critical infrastructure projects, are secure and reliable. This focus on ethical AI development is crucial for building public trust and ensuring that AI technologies serve the best interests of society. By prioritizing transparency and fairness, Cyquent aims to set a benchmark for responsible AI adoption, fostering a future where technology enhances public services without compromising security or ethical standards.

### **2.5 Human-AI Collaboration & AI Workforce Development**

Through the Cyquent AI Academy, we train government executives and industry leaders on responsible AI integration. By equipping decision-makers with AI expertise, we contribute to a stronger, AI-literate workforce that can effectively harness AI for national security and economic development. Cyquent's practical AI use cases demonstrate how AI-powered decision support systems are already transforming government efficiency and human services outcomes across multiple states and agencies.

### **2.6 Public-Private Partnerships**

Cyquent is eager to collaborate with federal agencies to accelerate AI research and deployment. Through our COE, we work alongside academia and industry leaders to create scalable AI solutions that align with federal mission objectives. Our experience in supporting HHS ONC, the

State of Georgia, and the State of Maryland, combined with our demonstrated AI prototypes, positions us as a leading AI solutions provider for government entities.

## **2.7 AI for Societal Challenges**

AI must serve the public good. Cyquent applies AI to healthcare, public safety, and national infrastructure, ensuring equitable access, ethical governance, and responsible AI policy development. Our ongoing engagement with HHS ONC, the State of Georgia, and the State of Maryland reflects our commitment to leveraging AI for public sector transformation, improving healthcare interoperability, administrative efficiency, and state-driven innovation.

## **2.8 Commitment to Federal Collaboration & AI Leadership**

Cyquent stands ready to support NITRD NCO, OSTP, and other stakeholders in refining the National AI R&D Strategic Plan, ensuring that the United States maintains its global leadership in AI. Our AI COE, AI Academy, and ongoing government partnerships serve as crucial assets, bridging the gap between AI research, federal policy, and industry applications.

## **2.9 Conclusion**

As the United States strives to push the boundaries of artificial intelligence (AI) research, bolster security measures, and sustain its technological leadership, Cyquent stands at the forefront of this mission. Our organization is distinctively equipped to spearhead innovation, cultivate the next generation of AI leaders, and advocate for the responsible integration of AI technologies across various sectors. By fostering a culture of continuous learning and development, Cyquent aims to empower individuals and organizations with the knowledge and skills necessary to harness the full potential of AI.

Cyquent is eager to forge collaborative partnerships with federal agencies, contributing our expertise to strategic AI initiatives that align with national priorities. Our goal is to shape an AI-powered future that not only enhances national security but also fosters economic resilience and promotes human flourishing. By working together, we can ensure that AI technologies are developed and deployed in a manner that benefits society as a whole, driving progress while upholding ethical standards and public trust. This collaborative approach is essential for navigating the complexities of AI adoption and maximizing its positive impact on our collective future.

**1. Comment on Coordination (Make Long-Term Investments in AI Research)**

We recommend increased investment in interdisciplinary AI research centers that include social sciences, ethics, and public policy experts to ensure technological development aligns with democratic values and societal needs.

**2. Comment on Ethical AI (Understand and Address the Ethical, Legal, and Societal Implications of AI)**

The Plan should explicitly support the development of practical tools and guidelines for responsible AI adoption, including mechanisms to audit, explain, and mitigate bias in AI systems, especially those deployed in high-stakes domains like health, criminal justice, and hiring.

**3. Comment on Public Sector Innovation (Expand Public-Private Partnerships to Accelerate Advances in AI)**

We encourage the Plan to strengthen public-private partnerships focused on public-sector use cases, such as AI for public health, environmental sustainability, or equitable access to social services. Agencies should be equipped to adopt AI responsibly and transparently.

**4. Comment on Workforce Development (Train an AI-Ready Workforce)**

A critical area needing further investment is reskilling and upskilling the existing government workforce in AI fundamentals, governance, and ethical use. This would ensure AI is adopted with competence and accountability in federal and state agencies.

**5. Comment on Data and Infrastructure (Develop Effective Methods for Human-AI Collaboration)**

There is a need to expand access to high-quality, diverse, and representative datasets, especially for small businesses, startups, and nonprofits. The plan should also emphasize building shared AI testbeds and simulation environments to democratize access to experimentation.

**6. Comment on International Collaboration**

Given the global nature of AI research and its implications, the U.S. should promote greater international collaboration on AI safety, governance, and standards-setting, particularly with democratic allies and emerging economies.