Enhancing the Adoption of Artificial Intelligence

The Institute for Defense Analyses (IDA) enhances adoption of cutting-edge AI, helping the federal government secure AI dominance. IDA accelerates AI implementation by using its deep technical and multi-domain expertise to harden AI technologies into decisive advantages.

Our tailored approach provides defense, intelligence, and other government agencies with three core AI capabilities: the evaluation and assurance of AI systems; organization-level AI strategy; and the use of AI for government research.

We offer the independence, expertise and technical rigor to serve as a trusted advisor and intermediary between government and industry. IDA's deep domain expertise in AI and its strategic application within national security drives our ability to answer the operational needs of our warfighters, strategic partners and high-level decision makers.

IDA

AI Evaluation and Assurance

IDA draws on decades of experience evaluating conventional and AI-enabled systems to verify that emerging technologies are ready for operational use. We continue to advance our test and evaluation capabilities to keep pace with large language model (LLM) research and the rest of the AI frontier.

Our AI test and evaluation capabilities include:

— Developing test concepts and assessment metrics for AI and autonomous systems.

— Evaluating human-AI team performance and suitability.

— Developing guidance and strategies for assuring the trustworthiness of AI capabilities.

— Statistically analyzing failure modes and strengths of models.

— Performing interpretability analyses of AI architectures and outputs.

— Deriving tailored benchmarks for generative AI model evaluation for specific use cases.

— Conducting rapid, developmental, operational, and live-fire assessments of AI systems and system components.

— Conducting adversarial AI and red teaming assessments.

— Examining and assessing the AI capabilities of U.S. forces and our adversaries.

Research through AI Development

IDA excels at empowering our partners through application of custom AI tools to answer critical national security research questions.

Our AI development for research includes:

— Using advanced analyses to uncover strategic insights for key technology areas, priority military sites, property surrounding national assets, and critical infrastructure.

— Deploying frontier AI into wargaming to sharpen strategic planning and operational readiness for future conflicts.

— Building statistically rigorous machine learning models whose outputs inform policy and management decisions.

— Tuning LLMs and neural networks for text analytics, extracting critical insights from specialized corpora to speed analysis.

— Leveraging custom-built semantic ontologies to provide truth models for AI tools with specialized use-case.

AI Strategy and Implementation

IDA enables partners in defense, intelligence, and civil government agencies to effectively accelerate AI implementation through our expertise in strategy, policy, guidance, infrastructure, and data.

Our AI strategy research includes:

— Expediting compliance and delivery of AI projects by aligning partner policies.

— Informing strategy for AI research and development capacity building.

— Developing data sources and analyzing information to understand AI-related workforce trends and needs.

— Enabling effective AI adoption through new strategy and governance processes.

— Spearheading studies on government data infrastructure to identify integration and investment opportunities.

— Working with partners to develop infrastructure to govern AI and AI-enabling tools such as ontologies.

— Expanding edge user capability through crafting forward-thinking strategy and plans for disseminating data.

— Elucidating threat landscapes of adversarial AI use for risk assessment and planning.

— Identifying risks and opportunities of federal AI actions on national security and economics.

— Advising on how AI integrates with, and changes, cross-departmental whole-of-government strategy.