

DEPUTY SECRETARY OF DEFENSE 1010 DEFENSE PENTAGON WASHINGTON, DC 20301-1010

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MEMORANDUM FOR SENIOR PENTAGON LEADERSHIP COMMANDERS OF THE COMBATANT COMMANDS DEFENSE AGENCY AND DOD FIELD ACTIVITY DIRECTORS

SUBJECT: Implementing Responsible Artificial Intelligence in the Department of Defense

As the DoD embraces artificial intelligence (AI), it is imperative that we adopt responsible behavior, processes, and outcomes in a manner that reflects the Department's commitment to its ethical principles, including the protection of privacy and civil liberties. A trusted ecosystem not only enhances our military capabilities, but also builds confidence with end-users, warfighters, and the American public. By leading in military ethics and AI safety, we reflect our Nation's values, encourage Responsible AI (RAI) development globally, and strengthen partnerships around the world. To that end, I reaffirm the DoD AI Ethical Principles adopted by the Department on February 21, 2020, for the design, development, deployment, and use of AI capabilities.

The DoD AI Ethical Principles are:

- 1. **Responsible**: DoD personnel will exercise appropriate levels of judgment and care, while remaining responsible for the development, deployment, and use of AI capabilities.
- 2. **Equitable:** The Department will take deliberate steps to minimize unintended bias in AI capabilities.
- 3. **Traceable:** The Department's AI capabilities will be developed and deployed such that relevant personnel possess an appropriate understanding of technology, development processes, and operational methods applicable to AI capabilities, including transparent and auditable methodologies, data sources, and design procedure and documentation.
- 4. **Reliable:** The Department's AI capabilities will have explicit, well-defined uses, and the safety, security, and effectiveness of such capabilities will be subject to testing and assurance within those defined uses across AI capabilities' entire life-cycle.
- 5. **Governable:** The Department will design and engineer AI capabilities to fulfill their intended functions while possessing the ability to detect and avoid unintended consequences, and the ability to disengage or deactivate deployed systems that demonstrate unintended behavior.

The DoD AI Ethical Principles build on and complement the existing ethical, legal, safety, and policy frameworks that are the hallmark of our Department. They apply to all DoD AI capabilities, of any scale, including AI-enabled autonomous systems, for warfighting and business applications. To ensure our Nation's values are embedded in the AI capabilities, as the Department develops, procures, and deploys AI, these principles will be implemented not only in



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technology, but also in enterprise operating structures and organizational culture. This memorandum establishes and directs the Department's holistic, integrated, and disciplined approach for RAI.

The Department will implement RAI in accordance with the following foundational tenets:

- 1. *RAI Governance*: Ensure disciplined governance structure and processes at the Component and DoD-wide levels for oversight and accountability and clearly articulate DoD guidelines and policies on RAI and associated incentives to accelerate adoption of RAI within the DoD.
- 2. Warfighter Trust: Ensure warfighter trust by providing education and training, establishing a test and evaluation and verification and validation framework that integrates real-time monitoring, algorithm confidence metrics, and user feedback to ensure trusted and trustworthy AI capabilities.
- 3. *AI Product and Acquisition Lifecycle*: Develop tools, policies, processes, systems, and guidance to synchronize enterprise RAI implementation for the AI product throughout the acquisition lifecycle through a systems engineering and risk management approach.
- 4. *Requirements Validation*: Incorporate RAI into all applicable AI requirements, including joint performance requirements established and approved by the Joint Requirements Oversight Council, to ensure RAI inclusion in appropriate DoD AI capabilities.
- 5. **Responsible AI Ecosystem**: Build a robust national and global RAI ecosystem to improve intergovernmental, academic, industry, and stakeholder collaboration, including cooperation with allies and coalition partners, and to advance global norms grounded in shared values.
- 6. *AI Workforce*: Build, train, equip, and retain an RAI-ready workforce to ensure robust talent planning, recruitment, and capacity-building measures, including workforce education and training on RAI.

The Joint Artificial Intelligence Center (JAIC) serves as the Department's coordinator for development and implementation of RAI strategy, guidance, and policy. The Director of the JAIC will develop, assess, and report on the implementation of a DoD RAI ecosystem, with support from the Office of the Secretary of Defense Components, the DoD Privacy and Civil Liberties Office, the Joint Staff, and the Military Departments and Services. The JAIC will also work in close coordination with stakeholders across DoD, as appropriate, including the Joint Staff, the Joint All-Domain Command Control Cross-Functional Team, Directorates, and Programs to ensure alignment and deconfliction of RAI ecosystem developmental activities.

To accelerate the adoption and implementation of RAI across the Department at scale, the

JAIC Director will, through the RAI Working Council, coordinate the following actions:

- RAI Working Council & Training: Provide O-6/civilian equivalent representatives to an RAI Working Council: Military Departments, Joint Staff, U.S. Special Operations Command, Director of Cost Assessment and Program Evaluation, General Counsel of the Department of Defense, Inspector General of the Department of Defense, Office of the Under Secretary of Defense (OUSD) Acquisition and Sustainment, OUSD Comptroller, OUSD Intelligence and Security, OUSD Policy, OUSD Personnel and Readiness, OUSD Research and Engineering, Director, Operational Test and Evaluation, Defense Privacy. Civil Liberties, and Transparency Division (Privacy), Office of the Chief Data Officer, and Office of the Chief Information Officer. The RAI Working Council may include representatives from other DoD Components as approved by JAIC. The Working Council will be an initial RAI working body to ensure input and coordination across the Department. The JAIC will provide RAI training to the Working Council (based on its Responsible AI Champions pilot). No later than fourteen (14) days from the date of the signature of this memorandum, representatives will be designated in writing to the JAIC Director. RAI training will be provided by the JAIC no later than thirty (30) days from the identification of Working Council designees.
- RAI Strategy & Implementation Pathway: The RAI Working Council will develop a DoD RAI Strategy & Implementation Pathway with executable and practical actions based on the RAI foundational tenets listed above. The Pathway will include proposed actions, with corresponding metrics (as applicable), and timelines, as well as the future role of the Working Council, while leveraging existing efforts, processes, policies, and structures for RAI integration across the Department. The Initial Pathway is due no later than ninety (90) days from the date of the signature of this memorandum. The Final Pathway is due no later than one hundred fifty (150) days from the date of the signature of this memorandum.
- *RAI Workforce Talent Management:* The RAI Working Council will develop a talent management framework and identify required skills to build a cadre of RAI experts and an RAI-literate workforce. A presentation to the Deputy's Workforce Council is due no later than October 1, 2021.
- *RAI Acquisition:* The RAI Working Council will provide recommendations on the integration of RAI into the AI acquisition requirements, on process, and on any policy modifications to enable RAI considerations within existing supply chain risk management practices. A report is due no later than one hundred twenty days (120) days from the date of the signature of this memorandum.

Ensuring a culture of ethical and responsible AI across the Department is a collective effort that requires strong leadership, robust governance, oversight, and sustained engagement at all levels of our organization. Applying RAI across a wide range of warfighting, enterprise support, and business practices is essential for ensuring military advantage, supporting our people, and safeguarding the Nation.