0 2 OCT 2018

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Directive 2018-18 (Army Artificial Intelligence Task Force in Support of the Department of Defense Joint Artificial Intelligence Center)

1. References:

    a. Memorandum, Deputy Secretary of Defense, June 27, 2018, subject: Establishment of the Joint Artificial Intelligence Center.

    b. 2018 Department of Defense Artificial Intelligence Strategy, June 27, 2018.

2. The 2018 National Defense Strategy articulates advancements in artificial intelligence (AI) that will present strategic opportunities and risks. The Department of Defense (DoD) has directed the establishment of the Joint Artificial Intelligence Center (JAIC) under the DoD Chief Information Officer. The JAIC serves as the accelerator and synchronizer of DoD AI activities. The DoD Chief Information Officer is seeking partnership with the Military Services as sponsors in three locations: the Pentagon, the National Capital Region, and Pittsburgh, PA. Large-scale efforts or clusters of closely related joint urgent challenges will be identified as National Military Initiatives and will be executed in partnership across DoD. These efforts serve as opportunities for synergy among efforts the respective stakeholders may initiate to achieve their statutory responsibilities.

3. The Army is establishing the Army-AI Task Force (A-AI TF) that will narrow an existing AI capability gap by leveraging current technological applications to enhance our warfighters, preserve peace, and, if required, fight to win.

4. The purpose of this directive is to establish a scalable A-AI TF under U.S. Army Futures Command (AFC) consisting of hand-selected Army personnel with specific skillsets to lead Army AI efforts and support DoD projects, principally based at Carnegie Mellon University. The end state is an empowered team that rapidly integrates and synchronizes AI activities across the Army enterprise and DoD's National Military Initiatives.

5. A-AI TF leaders and talent have been selected to start work immediately in coordination with JAIC's efforts. The A-AI TF will establish its footprint in accordance with Carnegie Mellon's 90-day occupation plan, formally organize under AFC, develop and then implement an Army AI Strategy, and initiate pilot projects in coordination with

the JAIC's National Military Initiatives. We will achieve initial operating capability 30 days from the date of this directive.

    a. Location. The A-AI TF will establish its main operating footprint at Carnegie Mellon's National Robotics Engineering Center in Pittsburgh to serve as the executor of JAIC's foundation and academic outreach. Smaller footprints, including the A-AI TF director, will locate in the National Capital Region. A Pittsburgh location allows the A-AI TF to integrate DoD efforts and leverage existing academic grants, knowledge, and experience within Carnegie Mellon. The A-AI TF will expand its footprint based on specific project requirements, classification, and sponsoring organizations.

    b. Relationships to Cross-Functional Teams. The A-AI TF will collaborate and coordinate with the Cross-Functional Teams (CFTs) to integrate and advance the Army's modernization priorities. The relationship with the CFTs is cross-cutting, in the same manner the Position-Navigation-Timing and Synthetic Training Environment CFTs interact with the other CFTs.

    c. Personnel. The A-AI TF will be manned, with assistance from the Army Talent Management Task Force and U.S. Army Human Resources Command, to ensure proper talent selection within its organization for positions at the Pittsburgh location, in the National Capital Region, and with project teams to meet mission requirements. The Pittsburgh location will consist of six core personnel with talent from across the Army (Functional Areas 49, 26, and 51; Career Field 01; and General Schedule 1101 and 1102 series personnel); academia; and industry. Each project team will be led by a project officer (01A), and the team size will vary based on the project's scope. The director, a general officer, and immediate support staff will locate in the National Capital Region.

    d. Responsibilities. The A-AI TF, under the direction of AFC, is responsible for the life cycle of Army AI projects and projects that support the DoD-level National Military Initiatives. The A-AI TF will develop the Army AI Strategy, which will set the Army's AI developmental efforts and projects, AI governance, AI support requirements, and AI talent management.

6. This effort will be executed in two phases: Phase I: Establish the A-AI TF and Phase II: Manning and Occupation.

    a. Phase I: Establish the A-AI TF. Phase I begins upon publication of this directive. AFC and A-AI-TF will begin planning and coordination. This phase ends when the Commanding General, AFC gives a back brief of the A-AI TF Roadmap to the Under

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Secretary of the Army (USA) and Vice Chief of Staff, Army (VCSA) and the A-AI TF is prepared to execute its occupation plan.

    b. Phase II: Manning and Occupation. Phase II will begin with the USA's and VCSA's approval of the Strategic Capability Roadmap and A-AI TF charter. The AFC and A-AI TF will refine requirements as needed. This phase will end when the Commanding General, AFC notifies the USA and VCSA that occupation and integration is complete.

7. I direct the following actions:

    a. AFC will:

        (1) draft and staff the A-AI TF execution order in conjunction with the Deputy Chief of Staff, G-3/5/7; and

        (2) provide regularly updates to Army senior leaders on the organization charter and execution order.

    b. The AFC and A-AI TF will:

        (1) identify existing and ongoing machine learning initiatives within the Army, including datasets, timelines, funding, outputs, and transition plans to program of records.

        (2) identify a framework and methodology for implementation of small machine learning projects that can evolve quickly to facilitate larger projects in the future.

        (3) review policies that prohibit or impede machine learning, deep learning, and automation, and coordinate resolution.

        (4) establish an Army AI test bed with appropriate hardware, software, and network access for experimentation, training, deployment, and testing of machine learning capabilities and workflows.

        (5) coordinate, provide updates to, and take direction from the designated A-AI TF Director for ongoing machine learning projects within the Army.

        (6) develop a talent management plan for the acquisition and retention of necessary skillsets to support Army machine learning and AI activities today and into the future.

(7) initiate the projects with the respective lead agencies to execute the stated DoD National Military Initiatives.

(8) initiate Service-sponsored projects that include, but are not limited to:

(a) develop Direct-Enhanced Autonomous Targeting and other vehicle capabilities (AFC will lead the effort).

(b) coordinate with the Army Analytics Group to develop and deploy a Personnel Risk Management Tool.

(c) coordinate with the Deputy Chief of Staff, G-2 to develop capabilities to employ operational use of intelligence to support the Long Range Precision Fires CFT.

c. The Commanding General, U.S. Army Materiel Command will support AFC with functional expertise and technical systems to develop predictive maintenance capabilities to decrease cost and increase readiness.

d. The Commanding General, U.S. Army Cyber Command will:

(1) facilitate rapid implementation of machine learning, deep learning, data science, and AI hardware on Army networks.

(2) support deployment of tool suites and software libraries for machine learning projects on Army networks.

e. The Deputy Chief of Staff, G-1, in coordination with the Deputy Chief of Staff, G-3/5/7, will identify talent required by AFC for the A-AI TF and initial A-AI TF projects, to include directed military overstrength positions as needed, not later than 31 October 2018.

f. The Deputy Chief of Staff, G-2 will support AFC with functional expertise and technical systems to:

(1) demonstrate an AI capability no later than 180 days from the date of this directive that will focus on intelligence support to operations by leveraging existing and Government-owned frameworks.

(2) document the process and methodology necessary to employ machine learning, including necessary data processes, infrastructure, and lessons learned.

4

(3) provide linkages to the Under Secretary of Defense for Intelligence Algorithmic Warfare CFT (Project Maven).

g. The Director of the Army Staff and Deputy Chief of Staff, G-3/5/7 will codify the administrative support and reporting relationships between the Army and Secretariat staffs to the A-AI TF.

h. The Chief Information Officer/G-6 will:

(1) revise the Army Cloud Strategy to establish an accessible, secure cloud environment that is an AI- and a machine learning-ready hybrid to share system data more easily to support decision making speed and lethality.

(2) develop and recommend policy and procedures for an Identity, Credential, and Access Management system that will efficiently issue and verify credentials to non-person entities/AI agents and machines that are authorized to operate on Army networks.

(3) develop and recommend policy and procedures for a more agile certification and accreditation process that enables the rapid integration of AI and machine learning tools, including commercially available and open source software in multiple domains.

(4) review all information technology, network, and cybersecurity policies to account for the development and employment of emerging AI capabilities and tools on Army networks.

(5) develop and recommend an Army Data Strategy that sets the conditions for the seamless use of data and applications by AI agents and machines.

(6) develop and recommend a standards-based technical architecture that establishes a common foundation that underpins all AI and machine learning capabilities, including network connectivity, data access and availability, hybrid cloud hosting capabilities, and data protection mechanisms.

i. The Commanding General, AFC, in coordination with the Deputy Chief of Staff, G-8 and the Assistant Secretary of the Army (Acquisition, Logistics and Technology), will incorporate AI requirements as part of future concepts, requirements, and solutions.

j. The Assistant Secretary of the Army (Financial Management and Comptroller) will initiate resource actions to ensure funding for fiscal year 2019 is reallocated through

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appropriate processes to support necessary activities for the Army's AI initiatives. A-AI TF leadership; the Assistant Secretaries of the Army (Financial Management and Comptroller) and (Acquisition, Logistics and Technology); and the Deputy Chief of Staff, G-8 will deliver a confirmation briefing to the USA and VCSA.

 k. All organizations will:

  (1) fund pay and entitlements for respective personnel detailed to the A-AI TF.

  (2) support the development of the A-AI TF charter.

  (3) support the A-AI TF initial and subsequent projects.

8. The provisions of this directive are effective immediately and apply to the Regular Army, Army National Guard/Army National Guard of the United States, and U.S. Army Reserve.

Mark T. Esper

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