Q&A
Executive Viewpoint
A Conversation with
LT. GEN. JOHN SHANAHAN

LT. GEN. JOHN SHANAHAN
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The leader of a new AI-centric organization talks about how the technology can transform DOD

Why did the Defense Department decide to dedicate a center to AI efforts?

The mission of the Joint Artificial Intelligence Center is to help transform DOD by accelerating the delivery and adoption of AI to achieve mission impact at scale — in other words, helping us move faster from research and development to operational delivery of AI-enabled capabilities.

The objective is to use AI to enable solutions to problem sets that span multiple services and multiple domains. The goal is also to build a common foundation that fosters decentralized development and experimentation by providing access to data repositories, reusable tools, models and standards, cloud and edge services, and so on.

To do this, JAIC must help operationally prepare the department for the strategic advantages that a human-centered AI capability will bring to all activities — from back-office functions to the battlefield and everything in between.

JAIC's holistic approach includes:
• Delivering AI-enabled capabilities at the speed of relevance. The center is collaborating with teams across DOD to rapidly address mission needs and help build JAIC's common foundation.

• Establishing a common foundation that enables decentralized development and experimentation by putting AI capabilities in the hands of users so they can experiment and develop new operating concepts and doctrine, as well as tactics, techniques and procedures.

• Developing strong, forward-looking partnerships with government, industry, academia and allies.

• Developing and cultivating an AI-ready workforce, whether through training, working with industry leaders or recruiting world-class AI talent.

• Leading DOD in AI planning, policy, oversight, ethics and safety by ensuring that AI capabilities inform strategy, policy and operations; by supporting principles for the ethical use of AI in defense; and by investing in research and development for resilient, robust and reliable AI.

What impact do you expect AI to have on the way the department operates?

AI will change the character of warfare. DOD needs to be ready for that future by using AI to maintain our strategic competitive advantage. It's important to note that this is not about developing AI for AI's sake. Instead, it's about finding AI-enabled solutions to any number of functions and missions across the department.

The department must harness the potential of AI to create a force fit for our time, thereby supporting and protecting American service members, safeguarding our citizens, defending our allies and improving the affordability, effectiveness and speed of our operations.

JAIC's goal is to transform DOD to be operationally ready to adopt AI. A key component of this is to grow and sustain an AI-ready force. This includes training and cultivating a world-class AI workforce, collaborating across the department to identify and successfully manage real-world projects that will benefit from AI, and developing a common foundation that enables a scalable and easy-to-use AI capability.

The department is concentrating on building a common foundation for the delivery efforts necessary to repeat and deliver at scale — including AI

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expertise, process checklists, storage and compute resources, tools and algorithms, authorization, and data. JAIC will establish and manage a cloud-hosted environment where every DOD user can begin AI work free of the typical "barriers to entry."

That environment will facilitate the sharing of resources and tools as well as the exchange of lessons learned, allowing others to capitalize on the progress of their peers. This approach is cost-efficient because it leverages project-related expenditures to help create enterprise capability. It reduces risk because it allows us to implement the most important elements of the foundation based on adoption and lessons learned.

How does AI help DOD achieve its goals?

AI will lead to an overall competitive military advantage. We are in the midst of a revolution driven by incredible amounts of data, massive computer power and new algorithms developed by the best AI talent in the world. If we can harness the power that AI provides, we will be able to transform our valuable data into strategic advantage.

Additionally, America's competitors are making significant investments in AI that threaten to erode the technical and operational advantages that the United States has held for the last 100 years and destabilize the free and open international order.

Are there early successes you can share?

JAIC's capability delivery will fall into

one of two categories: National Mission Initiatives and Component Mission Initiatives. NMIs cross services or departments, while CMIs are unique to a specific agency or component. JAIC is initially focusing on the following NMIs:

• Predictive maintenance to improve our ability to forecast, diagnose and manage maintenance issues and thereby reduce costs, increase safety and improve operational efficiency.

• Humanitarian assistance and disaster relief to reduce the time associated with search and discovery, resource allocation decisions, and executing rescue and relief operations to save lives and livelihood during disaster operations.

• Cyber sensemaking to detect and deter advanced adversarial cyber actors who infiltrate and operate within the DOD Information Network to increase security, safeguard sensitive information, and allow warfighters and engineers to focus on strategic analysis and response.

JAIC has two pilot NMIs under way, with initial capabilities delivering over the next six months. The first project is helping identify fire lines based on the California wildfires. This is a pressing need for state and federal governments and for people involved in disaster relief and humanitarian assistance.

There are several CMIs in early stages of development, in areas such as preventive medicine and operational planning, among others.

JAIC is in the initial stages of working with the military services and other organizations and agencies to frame potential new NMIs and CMIs that are

more oriented toward the National Defense Strategy and operations against peer competitors.

There are other key components to JAIC that are equally important in terms of capability, such as development of a cloud-enabled enterprise common foundation; test and assessment; international engagement; and development of enterprisewide standards, policies and authorities.

Could the center's work become a model for civilian agencies?

The sensitivity and classification of some programs will necessarily require constraints on sharing. We will collaborate with our partners and stakeholders as appropriate to work through those constraints. To the greatest extent possible, JAIC will encourage and facilitate the sharing of data and resources across programs — to the benefit of all programs, JAIC and the national interests. As appropriate, the common foundation will host, manage and protect data sources made available to JAIC's community of users.

In addition, the president recently signed an executive order on AI that directs more efforts to share data across the government and to facilitate research and development inside and outside government.

We are equally enthusiastic about taking advantage of AI success stories in other government agencies, academia and industry. Nobody has a monopoly on AI experience and expertise right now. Working toward common objectives and sharing our AI experience. ◾