Project Stories

CRAFTING A NEW APPROACH TO ATTRACT AI TALENT TO THE MILITARY

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Topics: Artificial Intelligence, Machine Learning, STEM, JAIC, Autonomous Systems, intelligence capabilities, cognitive computing

The Department of Defense needs a workforce that can master artificial intelligence as quickly as its competitors. But developing a pipeline of new talent will mean sharing a different kind of story.

Artificial intelligence has long since left the realm of science fiction. It's now part of our daily lives—from self-driving cars to mapping the spread of disease. Nowhere is the ubiquity of AI more important than in the Department of Defense, which depends on the latest technology advances to keep our nation safe.

Despite that need, some experts see DoD falling behind in its efforts to attract an "AI-ready workforce"—one that can develop, expand on, and use AI-powered technology.

There needs to be more targeted emphasis on bringing in people with the interest in and skills for AI-related work, says MITRE's Ron Hodge. A national security strategist and co-author of *Designing A New Narrative To Build An AI-Ready Workforce*, he notes the stakes are high.

Many believe the United States is falling behind China on AI for defense capabilities. The white paper makes several recommendations to build our national capabilities and maintain our competitive edge. A couple of good places to start: Explore new recruitment concepts and offer internal training programs.

But there's an even more powerful tool for recruiting today's tech talent: spreading the word in ways that engage today's up-and-coming technology students.

That includes talking about government's successes in increasing the diversity of its workforce, and about the moral and ethical guardrails for AI use. "The guardrails for technologies have been instituted long ago. How they apply to AI is relatively new and unresolved," says Jonathan Rotner, the paper's co-author and defense technology group lead at MITRE.

Engaging Talent in New Ways

The importance of AI talent can be recognized and elevated through ongoing DoD engagement, Rotner says.

"There are definitely strong voices within DoD in the last couple years that understand the nature of the problem, but perhaps don't have the resources to expand their message," he says.

Therefore, it's time to change the narrative for civilians and younger workers with AI skills. For example, the authors suggest that the Reserve Officer Training Corps (ROTC) be modified into "ROTC+" to create an AI talent pipeline.

The ROTC+ program would include scholarships for AI education, target certain universities like Virginia Tech through its Corps of Cadets, and allow greater flexibility for undergraduate research and other internship programs. ROTC+ would be established in universities in geographic areas that are considered the "hubs" of AI thought and research.

Hodge also highlighted the intelligence community's work with historically Black colleges and universities to develop AI curricula for classes. There are even plans to move the same program into the high school level.

"These are great examples of the government working to build awareness of AI through the education system," he says.

Regaining the Baseline in AI Technology

DoD once owned the baseline of most AI technology, but that's no longer the case. Rotner notes that, in the not-too-distant past, the department was a big commercial player and could drive the market.

Now, however, cutting-edge technology and AI innovation usually comes from Silicon Valley and other technology centers. "The industry only uses certain features

of the DoD's functionality," Hodge says. "And when it comes to AI, the common belief is that the DoD's acquisition processes are too bureaucratic and slow."

That conflicts with the mindset of a generation that wants to see their work put to use quickly, another barrier to recruiting. That's one reason why Hodge applauds programs like Hacking for Defense that highlight STEM opportunities at DoD. The program teaches students to work with the defense and intelligence communities to rapidly address the nation's emerging threats and security challenges.

Boosting Understanding for a Shared Mission

Because AI will have far-reaching impact, the United States will have to collectively raise our overall literacy, Hodge notes. However, unless this message is shared through workforce recruitment and strategic messaging, people won't perceive these threats to the same degree.

For example, a poll conducted by the Chicago Council on Global Affairs found that in 2018 only 39 percent of Americans believed that China becoming a world power represented a critical threat to U.S. interests.

This is a potentially greater issue than it might seem. "The research suggests that the greater population and those in the tech industry don't necessarily understand the DoD's challenges and don't really understand its mission," Hodge says. "If you have both sides potentially misunderstanding and having different assumptions about the other industry it's harder to bring both sides together."

If DoD doesn't change the narrative on AI, and China takes the lead, it means the United States will face critical disadvantages.

"Frankly, there's going to be competition—and that doesn't just mean kinetic or warfare—but competition in many spaces, including tech, automotive design, architecture, anything you can think of.

"Think of a market that would not potentially be impacted by AI," he adds. "I don't think it exists."

—by Aishia Caryn Freeman

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