ATARC

Implementing Data Strategy Across the Department of Defense:
Overcoming Challenges to Drive Mission Success

Summary of Roundtable, hosted by ATARC on May 11, 2021

In October of 2020 the Department of Defense (DoD) unveiled a new Data Strategy aimed at providing a framework for transforming the DoD into "a data-centric enterprise." The ultimate goal of the Strategy is to see the DoD become "a data-centric organization that uses data at speed and scale for operational advantage and increased efficiency." Given the widespread interest in the topic, the Advanced Technology Academic Research Center (ATARC) recently held a roundtable discussion involving a panel of experts from across the DoD to explore what this means for the Department's component agencies, military departments, and service branches.

During the course of the conversation, it became clear that while DoD employees have done a tremendous job in crafting and rolling out the new Data Strategy, hurdles remain. In particular, shifting personnel requirements and downstream implementation remain a challenge.

People Power

One of the clearest trends to emerge from the conversation was the difficulty in hiring and retaining the technical talent necessary to successfully execute the DoD's Data Strategy. The DoD is competing with private industry for talent and technology companies make no secret of their attempts to lure away top performers, particularly those from younger demographics, with lucrative compensation packages and the promise of more flexible work environments. This challenge is of course far from unique to the DoD. It is a problem for the public sector as a whole.

Studies have shown that while millennials "are projected to make up 75 percent of the global workforce by 2025"

employees under the age of 35 made up just 27 percent of the US public sector workforce as of late 2019. Fortunately, there are plenty of tools available to the DoD for recruiting and retaining key talent. In particular, studies have repeatedly shown that millennials value meaningful work over compensation when evaluating career opportunities. Few employers offer the chance to contribute to the defense of the American people as the DoD does. Panelists also noted that the DoD offers young people the chance to work on some of the most interesting and challenging data sets in existence.

Employees value meaningful work

> DoD is competing with private industry to hire and retain technical talent. As an advantage, the Department offers chances to work on some of the most interesting and challenging data sets, has offered promising data science internship programs, and works on empowering existing personnel to drive real impact.

According to panelists, the key to recruitment lies in working with academia to find young people enrolled in data science programs and related fields, introduce them to the DoD's mission, and give them an opportunity to take part in the Department's work. One of the most promising programs is the data science internship offered by many DoD components, which has helped cultivate new full-time hires with the potential to make significant contributions to the Department's mission. Panelists also spoke about the need to "democratize data" and the need to empower existing personnel to drive real impact.

The people who make up the Department of Defense are talented and driven. Multi-day "datathons" where cross-functional teams work together on real-world problem sets have resulted in solutions in active use in the field today. These datathons can serve as a great way to build connections across teams and motivate staff in addition to their value in delivering solutions. Finally, panelists pointed to the importance of emerging technologies like AI and machine learning in retaining talent. By automating monotonous, routine work through AI and machine learning, DoD personnel are freed to work on more interesting problems. This helps to both improve morale and focus staff on the mission-critical tasks that generate the most value.

Crafting the Culture

As noted by ATARC Founder & President Tom Suder, it is one thing to craft a strategy and another to implement it. Panelists argued that the biggest barrier to adoption of the Data Strategy is not technology but culture. In the words of one panelist, "creating a data culture is the most challenging part of putting the Data Strategy into action." Fortunately, the DoD Data Strategy was not simply "tossed over the fence" but was the result of a collaborative effort between stakeholders from across the Department. As a result, panelists expressed confidence that senior leadership bought into the common message that "data is a strategic asset."

However, this shift in mindset has not always made its way downstream. Service branches and other components of the DoD have long felt most comfortable maintaining strict control over their own siloed data sets. Such an approach will have to end if the Data Strategy is to be successful. Panelists agreed that the ultimate goal should be to get away from a "system-centric" and "organization-centric" model and instead integrate the Department's disparate data sets into a common data store and make the DoD's data as widely usable as possible.

This will not be an overnight process and a lot of work remains to be done. Common department-wide specifications for labeling data and clear data standards

(beyond IT specifications) will need to be implemented in order to ensure that data is trustworthy and interoperable. Open APIs will need to be built in order to ensure that data can flow from one application to another. Matters are further complicated by the fact that technological and data maturity remains uneven across the DoD.

"Data is a team sport"

Service branches and other components of the DoD feel most comfortable maintaining strict control over their own siloed data sets. For Data Strategy to be successful, the Department's disparate data sets need to be integrated into a common data store and made as widely usable as possible.

Ultimately, the panelists argued that "data is a team sport" and collaboration across teams will be critical to the Data Strategy's success. Fortunately, the panelists have already been involved in growing relationships across organizations both through events like this one and in a one-to-one capacity. Many are already working together on a daily basis and with the support of senior leadership these relationships are only likely to grow.

How ATARC Can Help

ATARC is a nonprofit with the goal of bringing industry, academia, and the public sector together to drive outcomes. We have extensive experience in hosting guest speakers and enabling knowledge exchange to uplevel the skills of existing staff as well as in facilitating the sharing of best practices across teams and providing safe environments for experimentation. We would love to partner with your organization to support your mission.

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