



# From the Server to the Battlefield, How Data Scientists are Key to Winning Future Conflicts



In modern warfare, data is a weapon system. From computation to combat, the never-ending flow of information that supports the functioning of our economy, military technology, and command and control is now a domain that will increasingly determine the outcome of current and future conflict.

In the introduction to the new Department of Defense (DoD) Data Strategy, the former Deputy Secretary of Defense David Norquist states that it is the responsibility of all DoD leaders to “manage, secure, and use data for operational effect.” The new DoD data strategy aims to use data for a battlefield advantage, to improve DoD management, and to drive informed decisions at all echelons.

In many ways, information dominance is a new arms race. And while it can very well be the key to both enhancing how the Army does business and winning future combat operations, it’s not the data itself that will determine the outcome of a mission. It’s *HOW* the data is used that will decide who will win in the long-run.

In order to support the DoD Data Strategy priorities of joint warfighting, senior leader decision support, and data analytics, the U.S. Army needs to transform its data into a weapon system – a weapon system that enables readiness, informs decision makers, enables dominance in the information and cyberspace domains, and expands the ability of the Army to project power in multi-domain unified land operations (ULO).

When data analytics isn’t being used on the battlefield, it can be used to manage and improve the business of the Army. Data scientists enable leaders by finding and reducing cost, improving outcomes, streamlining the flow of personnel and materiel, and more generally maximizing the efficiency of the Army workforce.

As the information environment continues to expand, the Army will need to develop and manage new tools and capabilities to understand and mitigate vulnerabilities, as well as understand and exploit the vulnerabilities of our competitors and adversaries. The Army must continually expand its information environment to address the fact that data is coming in faster than it can often be computed – or, more importantly, interpreted and strategized. The need for the right analysis tools to weaponize data based on real-time

analytics continues to be a challenge in every organization across the U.S. military. In fact, information overload is at an all-time high and, according to the DOD, the majority of that data comes from domestic sources.

That's why, the military's dedication to a comprehensive analytics system, including a complete modernization of our predictive modeling and response platforms, is needed now more than ever. The DoD is currently prioritizing and resourcing these pursuits by aligning its staffing, processes, and architecture to support the goal of using an array of analytics and technologies to mitigate information overload and extract pertinent data in ways that is usable for Soldiers and leaders alike.

By embracing growth in emerging analytic capabilities, the Army will see impactful returns. It will allow us to execute a clearer awareness of readiness that complements the principles of sustainment, specifically: integration, anticipation, responsiveness, economy, and improvisation. It will also enhance our overall competence, shared understanding, intent, and initiative thanks to the speed that data transforms to knowledge. Improved data analytics will also aid our leaders, who are responsible for defining objectives that support enterprise-level analytics across mission areas and domains. Opportunities exist both strategically and tactically to exploit data and information, producing a powerful force enabling our Soldiers and weapon systems alike.

So, whether it's the boardroom or the battlefield, one thing is for sure. Without analysis, data is just a collection of random information points. To become a global power in business or war, data analysis isn't the future...it's right now.

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