

BIG DATA REPUBLIC

TRANSFORM YOUR BUSINESS WITH DATA

Why the Military Loves Big Data



John Edwards, Technology Journalist & Author

1/23/2013

[Comment](#)

9 comments

[Login](#)



50% 50%



Wars are waged with bullets and bombs, yet in the years ahead, it will be big data analytics that helps military leaders shape and guide their battle plans.

Like businesses worldwide, the military is facing a big data windfall. Sensors, cameras, mobile devices, websites, and an array of other technologies are generating a tsunami of information in both structured and unstructured formats. Finding ways of squeezing actionable insight out of all this data is one of the biggest challenges now facing military leaders.

Vendors such as IBM, SAS, and ITT Exelis are already supplying the [US Department of Defense](#) with big data analytics tools.

Administration initiative

The DoD's embrace of big data is largely in response to the Obama Administration's March 2012 [Big Data Research and Development Initiative](#). The initiative's goal is to develop and enhance systems that will collect, store, preserve, manage, analyze, and distribute big data insights.



US Department of Defense using Big Data Analytics

According to the plan, these technologies will be used to support science and engineering, strengthen national security, and develop new teaching and learning methodologies. The initiative also aims to expand the workforce needed to develop and apply big data technologies.

As it moves forward with its big data plans, the DoD has pinpointed three areas of focus: decision-making, autonomous systems, and human systems. Decisions-related funding will be used to create computational techniques and software tools for analyzing massive amounts of disparate data. Autonomy investments will be directed toward developing systems that can spot trends, adapt to dynamic conditions, and function reliably in complex, real-world environments without the need for human intervention. Human-systems research will be aimed at creating advanced human-machine interfaces that enable collaboration for both training and field operations.

Turning to DARPA

The DoD has unique data analysis needs, since it draws and stores more data from more sources located in more places than almost any business. Seeking cutting-edge assistance, the agency has turned to the [Defense Advanced Research Projects Agency](#) (DARPA) for sophisticated, computational techniques and software tools that will enable the processing and analysis of massive amounts of mission-oriented data.

DARPA has responded with the [XDATA](#) program. Announced last April, XDATA aims to address the need for scalable algorithms for the processing and visualization of imperfect and incomplete data. XDATA, according to DARPA, also intends to create human-computer interaction tools that could be easily customized for different missions.

Finally, to enable large-scale data processing in a wide range of potential settings, XDATA plans to release open-source software toolkits to enable collaboration among the applied mathematics, computer science, and data visualization communities.

With the DoD swimming in sensors and drowning in data, technology that leverages big data at all stages, from analysis to operations, is becoming as essential to the military as bullets and bombs.

Related posts:

- [From Sorcery to Surfacing Data](#)
- [Big Data & Crime Investigation](#)
- [National Safety in Big Numbers](#)
- [How Big Data Analytics Lead to a National Competitive Advantage](#)

— John Edwards, *Technology Journalist*

[Email This](#) [Print](#) [Comment](#)

Copyright © 2013 TechWeb, A UBM Company, All rights reserved.