

# Extricating DON Information

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Cutting edge organizations have the ability to harness the power of their data, match it in context, and evolve it into actionable knowledge. From helping to model the dispersion of deadly diseases, to allowing us to manage our personal finances, the integration of data into decision-making processes enhances our ability to interpret and interact with the world. The flood of data made available to us recently, proliferated by digital technologies, is revolutionizing how we make decisions.

However, while data in isolation may be neutral, any benefit or harm to individuals, organizations, economies, and societies is highly contingent on the ways in which it is applied. Optimal uses of data allow us to identify patterns and trends, confirm or refute our assumptions, and validate our actions. Conversely, when improperly managed, data can distort, obfuscate, and confuse. The DON, without the tools, processes, and skilled workforce needed to store, share, synthesize, and protect information, finds itself increasingly overwhelmed by the terabytes it collects. Rather than using it effectively, we find ourselves always swimming upstream against a data current that is constantly growing in scope and complexity.

Data can be thought to travel through the pipes, collection tanks, and valves which make up an organization's IT infrastructure. In the best case scenario, it flows freely through the system, with the right controls so that users can access and utilize it securely and quickly. If we compare a healthy data ecosystem to the primary cooling loop of a nuclear reactor, then the Navy's IT infrastructure has the fluid flow equivalent to the 19th century Paris sewer system before Baron Haussmann. By creating a system lacking the right protocols, controls, and "clean" pipes for data sharing, the DON has created an information ecology characterized by stagnant cesspools, unpatchable leaks, and corrosive run-off. The quintessential and current examples of this are the DON's email and shared drive systems, which create infinite and insuperable problems with version control, leaks, bottlenecks, and searchability. The Department's current IT infrastructure and associated governance and certification structures all but ensure that all DON data is equally valuable and none of it is useful.

We live in a world where the outcomes of conflicts are increasingly contingent on information capability as much as a state's industrial or demographic capacity. In the 21st century, effectively managing information is at least as important, perhaps even more vital, than the number of bullets and ships a country can apply to a particular scenario. The ability to evolve the DON's or an enemy's data into high value knowledge, by applying the right skillsets and analytic tools, is what will allow the DON to manage the conflicts of the future and keep the country safe.

Any organization that wants to compete in the 21st century must learn to value data intrinsically, not view it as a component of IT and sensing systems. One of the major roadblocks keeping us

from modernizing how we think about data and IT is the system-centric funding model. Computers and networks are not intrinsically valuable; what's on them is what is. Moving from a vulnerability-reduction approach for systems to a data-centric method means allocating money for algorithms, data projects, and "Software as a Service," independent of any funding for an IT system, platform, or service contract. Just as JP5 fuels our aircraft, data is the raw material needed to propel decision-making; it must be paid for and governed in a way that reflects that truth.

Information will be the central enabler of 21st century national security. Mastering it requires valuing and protecting only very select and very specific parts of the ocean of data we collect, while granting broadest access to the balance of our data. Such an approach recognizes that unlike most other DON assets, value determinations within the marketplace are based on potential usage of data rather than its mere existence. With the proper systems, managed by talented information professionals, we can assess, interpret and exploit the information we truly need.

Effectively influencing the conflicts of the future hinges on the DON's ability to first, recognize the value of its data, and second, funding the right tools and skillsets to use it.

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