Information Defined

A whole of force approach by LtCol Dennis W. Katolin

ith the establishment of information as a warfighting function, the Marine Corps has evolved to the modern operating environment. However, to apply this function, Marines must first understand what information is. To that end, this article will define the term information for Marines based on how it is used in our operations.

Information as a Signal

MCDP 6, *Command and Control* (C2), defines information as the "usable knowledge," which is a part of the information hierarchy.¹ This doctrinal publication expands upon that definition to give a clearer understanding of information at its most basic level.

Information is a signal that has meaning in some context for its receiver.² In this sense, information is a noun. Information is more than just simple isolated facts. Rather, it must be seen as part of a system that includes data, physical systems, people, and decision making. Ultimately, this system is used to present information to the right audience, and at a specific time and place to inform, >LtCol Katolin is assigned to Plans and Strategy, Deputy Commandant for Information, HQMC.

influence, or deceive that audience in order to achieve an advantage over our adversaries.

While the Marine Corps' use of information can have a strategic effect, it is

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not synonymous with information as an instrument of national power. We view information as part of power projection, defense, and maneuver within an oper-

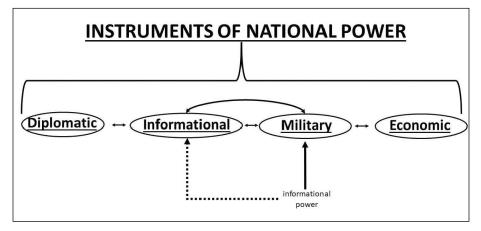


Figure 1. Information as part of the military instrument of national power.

ating environment. We use information to enable the military component of national power. Information makes the military instrument of national power more versatile and useful to better complement the diplomatic, information, and economic instruments of national power. (See Figure 1.)

This view of information is in keeping with our maneuver warfare doctrine of creating and exploiting an advantage over our adversaries. In fact, to truly apply maneuver warfare, we must think of every possible source of advantage over our adversaries. *MCDP 1, Warfighting*, states:

> In order to maximize the usefulness of maneuver, we must consider maneuver in other dimensions as well. The essence of maneuver is taking action to generate and exploit some kind of advantage over the enemy as a means of accomplishing our objectives as effectively as possible.³

Information as a Function

In addition to information as a signal, we also define information as a function. The function of information is performed to generate, preserve, deny, or project information to increase our advantage over the enemy. In this sense, information is a verb.

While the function of information involves the projection of signals, it also addresses actions that focus on information (the noun), cognition, and decision making. This can include physical and non-physical actions to deny, destroy, or manipulate their signals. As a result, the function of information must be viewed as a "whole of force" problem that requires a whole of force solution.

This also means—just as with every function in war—there is a symbiotic relationship with other functions. Given our expeditionary nature, Marines must

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appreciate the austere conditions that they operate in. Establishing technical information systems in such an environment will require maintenance and supplies (logistics) as well as knowledge of enemy threats to those systems (intelligence).

While the capabilities and sub-functions of information are addressed in the third chapter of *MCDP 6*, it is important for all Marines to understand that information must be seen as something we do. While we use information (the noun) to perform information (the verb), we have a broader scope of resources available to use to perform this critical function in war.

Information, Intelligence, and C2

As we develop our understanding of what information is, we must be clear to differentiate it from what *it is not*. Information is not intelligence, or as *MCDP 2, Intelligence*, states, "intelligence is not simply another term for information."⁴ *MCDP 6*'s information hierarchy shows information as the signal or raw data that leads to knowledge. This hierarchy makes information the foundational component to knowledge. When that knowledge tells us about the enemy or the environment, it is intelligence.⁵

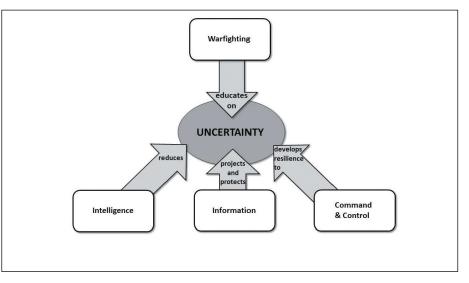


Figure 2. Information, intelligence, and C2 in relation to uncertainty.

uncertainty: we *reduce it*, we build *re-silience to it*, we *project it*.

It is in these three objectives that we distinguish between the functions of intelligence, C2, and information. We use intelligence to reduce uncertainty by enhancing our knowledge of the enemy and the environment.

We use C2 to foster initiative and unity of effort while operating in the presence of uncertainty. In this sense, C2 builds our resilience to uncertainty by making the commander's vision clear

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Nor is information the same thing as C2. As it is to intelligence, information is a vital part of C2. Information is one of the three elements of C2 along with people and support structure.⁶ When information is used to represent the reality around us, it facilitates C2.

The question still needs to be answered, "what is the difference between information, intelligence, and C2?" The answer lies in their relationship to uncertainty. *MCDP 1* tells us that uncertainty is an inherent element of war's nature. With this knowledge, we seek to do three things in relation to and enabling the decentralized execution of our forces so they can adapt to an uncertain environment as they advance within it.

The function of information projects uncertainty. We seek to either enhance or reduce uncertainty to impact the cognition and decision making of all relevant actors to influence their actions to our favor. We may seek to create uncertainty in the enemy by saturating them with more information than they can process. We may want to enhance the enemy's certainty of what we are doing in an effort to deceive them. We may also want to reduce the uncertainty about us in our political leadership, the American people, or our partners and allies. The function of information also includes our efforts to protect ourselves from those that look to actively impose uncertainty on us.

While there is an inherently symbiotic relationship to the functions of information, intelligence, and C2, one should not simply say that they are the same thing. While information (the noun) is a necessary component of the function of either *reducing* uncertainty (intelligence) or *building resilience* to uncertainty (C2), the function of *projecting* uncertainty is distinct from the others and is now referred to as information. (See Figure 2.)

Information Age

Technology has always played a role in how we view the world around us. While boats have existed for millennia, the creation of submarines and aircraft carriers redefined naval power. Additionally, muskets were the primary weapon for centuries until the machine gun, which performed the same task as a musket but at a much more accelerated rate. This changed our approach to land warfare forever.

While information has always been a critical component of war, its importance has grown with the arrival of the information age. The information age occurred during the second half of the 20th century with the combined impact of the global Internet and the proliferation of affordable and highly capable information systems. This caused billions of people to access, generate, transmit, and consume information at a scope, scale, and speed that continues to accelerate exponentially beyond any other time in history.

Information has also impacted everyone's lives. The information age has allowed information's accelerated and expanded scope to impact militaries and societies from a distance and at a rate that has been unprecedented.

From digitally integrated fires across multiple domains from hundreds of miles away to the digital security, entertainment, and appliance systems in people's homes, the Information Age has allowed for a tremendously integrated and, consequently, a responsive world. The exponential proliferation of information technology has made information and the systems that generate, distribute, and present information a critical requirement for societal, military, and governmental institutions. As is the case with all powerful resources, information can be used for constructive or destructive means.

Given the rapid expansion of information's generation, transmission, and access, there is a tremendous opportunity for actors to effect other people and systems on a global scale. Consequently, an information environment has emerged, and we must understand how it has changed our operating environment.

Conclusion

Information is a critical component to success on the battlefield. It impacts our ability to understand the enemy, environment, and ourselves. Information enables our maneuver and ability to conduct combined arms faster and more effectively than our enemies. Marines must understand the nature of information and its relationship to people, time, and space in order to better understand how to access it, how it impacts us, and it can be projected to help us be successful.

Notes

1. Headquarters Marine Corps, MCDP 6, Command and Control, (Washington, DC: 1997).

2. This information is available at https:// searchsqlserver.techtarget.com.

3. Headquarters Marine Corps, *MCDP 1, War-fighting*, (Washington, DC: 1997).

4. Headquarters Marine Corps, *MCDP 2, Intelligence*, (Washington, DC: 1997).

5. Ibid.

6. MCDP 6, Command and Control.

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