Did the Radio Kill Auftragstaktik?

by

Colonel Heath Niemi
United States Army

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by

Colonel Heath Niemi
United States Army

Dr. Andrew A. Hill
Department of Command, Leadership, and Management
Project Adviser

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Abstract

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As military leaders will soon possess an almost deistic ability to see the battlefield, approaching remote omniscience, omnipotence, and omnipresence (O3); strategic and operational commanders will have a better understanding of the common operational picture. The perception of O3 will potentially cause senior leaders to interfere and centrally control their subordinate leaders and elements prohibiting the effective use of mission command. This paper postulates leadership, in an O3 environment, will preclude the full employment of an empowered force within the definition of mission command. Instead, leaders need to find a middle ground between the ability to centralize control and the capacity to resource empowered leaders and teams. As globalization in a volatile international arena requires every technological tool available to allocate limited resources and project the effective use of leadership, the use of advanced technology can enhance the effectiveness of leadership for a globally dispersed organization. The future capability technology brings to leadership highlights the required doctrine, training and appropriate barriers to enable mission command in an environment of perceived godlike visibility of operations.

Did the Radio Kill Auftragstaktik?

> The real problem of humanity is the following: we have Paleolithic emotions; medieval institutions; and god-like technology. And it is terrifically dangerous, and it is now approaching a point of crisis overall.
>
> —Edward Osborne Wilson[1]

*In the beginning there was Auftragstaktik . . . .*The eternal tension in military operations is between the desire for coordinated, tight, strategic control of military assets and the need to improvise when facing enemies who inevitably defy our best plans. War has passed through several cycles of increasing and decreasing central control of operations. The most recent major cycle was spurred by German (Prussian) adaptations following the Franco-Prussian War of 1870.[2] The constraints on leaders' situational awareness on the battlefields of the late 19th and early 20th centuries made devolving control to subordinates an attractive adjustment. The Prussians called this devolution *Auftragstaktik,* which Prussian Chief-of-Staff Field Marshal Helmuth von Moltke the Elder defined as, "Superiors specify the mission objectives and constraints and allocate resources, leaving the rest to their subordinates. The latter's skills, creativity, and commitment, or lack thereof, will ultimately determine the battle plan and its execution."[3] The United States Army continues to emphasize "mission command," its translation of *Auftragstaktik.*[4] The mission command concept implies there is a permanent, optimal level of control over operations at each level of the military hierarchy. This paper argues against this view, and proposes a more nuanced approach to operational control focusing on two undeniable facts: first, communications technology has relaxed many of the constraints that led to the development of *Auftragstaktik*; second, the optimal level of operational control varies over time, and

military technology is the main contextual force that pushes that optimum up and down the military hierarchy.

Military leaders will soon possess an almost deistic ability to see the battlefield, approaching remote omniscience, omnipotence, and omnipresence ("O3"). Reading current documents on mission command, one may be excused for thinking the operating environment has not changed in the past 150 years of warfare. We no longer inhabit the world that begot *Auftragstaktik*. As technology makes O3 a reality, what does mission command mean? What approach to command is appropriate to operations in an environment in which *strategic* leaders thousands of miles from theater can see current operations with a fidelity that was unavailable to *tactical* leaders just twenty years ago. In defending the need for local control of operations, we can use tried-and-true statements like, "There is no substitute for being there," or, "Only local commanders have a feel for operational reality." Such statements are appealing because they contain some truth, and they accord with a popular view of the proper and improper wartime roles of strategic leaders (Think of President Johnson picking targets in Vietnam).[5] Yet these defenses of mission command miss the point, and they hinder innovation by defending old approaches with untestable assertions.[6] The military environment has been transformed by information, and we cannot resolve the tension between strategic and tactical control by pretending this transformation is not happening. The appropriate balance between the two must acknowledge and incorporate crucial changes in the technological context. Only then will the United States (U.S.) military be effective on the modern battlefield.

The theory of mission command or empowerment, derived from *Auftragstaktik*, is a component of command and control due to its emphasis on conducting operations in the absence of higher oversight.[7] With the advancement of information management technologies that allow for the collection and dissemination of big data via globally networked operational nodes, remote leaders and commanders connect to their subordinate organizations like never before. In the future, this connectivity will enable enhanced situational awareness (SA) and understanding of the tactical condition on the battlefield. Strategic and operational commanders will feel like they are there (the literal realization of the cliché "virtual reality"), and will have a better understanding of the common operational picture. The ensuing perception of O3 will potentially cause these senior leaders to interfere and centrally control their subordinate leaders and elements thus prohibiting the effective use of mission command.

This paper theorizes future leadership, in an O3 environment, will preclude the full employment of an empowered force within the definition of mission command. Instead, leaders will need to find a middle ground between the ability to centralize control and the capacity to resource empowered leaders and teams. The future capabilities that technology brings to the human dimension of leadership highlight the required doctrine, training and appropriate barriers to enable mission command in an environment of perceived godlike visibility of operations.

Technological Change and Leadership Projection

Before the telegraph, a leader's situational awareness and understanding of the operational environment was limited. Due to the vague nature of a leader's awareness of his forces on the battlefield, the leader of the state, such as Napoleon Bonaparte in the Russian Campaign or Henry V at Agincourt, traveled with the Army to provide

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guidance.[8] Even with the development of the French division and the cordon system, the lack of command and control and proper communication methodology led to uncoordinated operations. Napoleon realigned the division and employed them, but under his direct control. He controlled his divisions with the strategy of a single point.[9] This strategy lacked flexibility and did not work for a widely dispersed Army in depth, such as those in the American Civil War. In fact, Winfield Scott, the Union General-in-Chief became so accustomed to the lack of battlefield awareness he took a nap during the Battle of Manassas 30 miles from the capital.[10]

One can imagine the latitude subordinate leaders in this era had available to make tactical, operational and even strategic decisions without the knowledge of the higher command. To give subordinates broad vision, intent, mission orders and then trust and empower them to carry out these orders with little to no guidance was the essence of control during this time. The same General Scott in 1847 decided to march on Mexico City during the Mexican War and U.S. leadership learned of the attack days later.[11]

President Lincoln and the telegraph changed how distant leadership perceived their ability to understand the battlefield. For the first four months of the Civil War, President Lincoln had limited access to telegraph messages. This lack of connectivity required a telegraph office next to the White House and it became the first White House Situation Room.[12] The President became quite adept at using the new technology after first sending one telegraph per month. By the end of the war, President Lincoln had sent over 1000 telegraphs and habitually slept in the new Situation Room in order to receive the information.[13] President Lincoln became so involved via the telegraph he took

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command as General Jackson threatened the capital during the Shenandoah Valley Campaign.[14] The President gave orders to his Generals about where and when to move their forces on the battlefield.[15] Although some historians blame the defeat of the battle on the poor implementation of the President's strategy, it occurred most likely due to the President not having the situational awareness he thought he had.[16] These actions are examples of a distant leader over-controlling a subordinate's elements through an advance in technology.

Did the radio kill Auftragstaktik? It is amazing what an electron tube, as an oscillator and amplifier, made possible on the battlefield.[17] First introduced into combat during World War I, wireless telegraphy was transported on the backs of four pack mules and utilized by a team of ten men.[18] The radio transformed the ability of U.S. forces to deploy as an expeditionary force sans telegraph. The radio enabled communications to higher headquarters giving up-to-date intelligence on the battlefield situation. Not only did the radio improve combat communications, it included two-way voice contact with airplanes meaning "squadron formations of all sorts maintained in the air as easily as infantry units on the ground."[19] Limited to line-of-sight, if unable to tap into radio towers, the radio did not always give the higher headquarters the tactical situational awareness they needed. In World War II, Hitler (who was renowned for meddling with the military) used this mode of communication to interact directly with his Generals in the field.[20] Hitler's interference is noted during Operation Braunschweig, or Case Blue.[21] Hitler's direct involvement led to the dismissal of opposing dissent from his Generals and facilitated the destruction of the Sixth Army as his remaining Generals

followed orders to remain on the defensive instead of breaking out of Stalingrad. As one

historian recounts:

> The advent of radio and the resultant speed of information exchange
> between lower-ranking commanders and the highest command echelons
> enabled Hitler's centralized style and a shift from decentralized to
> centralized command. Thus, credit for killing the concept of Auftragstaktik
> went to the radio—not Hitler.[22]

Military leadership now has situational awareness considered impossible

decades before. Computers, satellite coverage, and internet connectivity have created

an information revolution that will continue to empower commanders. At the beginning

of Operation Enduring Freedom, Blue Force tracking devices linked to satellite

mechanisms, allowed Task Forces and Government agencies to track a number of

machines (aircraft, ship, etc.) globally.[23] This gave limited situational awareness to

leaders about asset locations but did not provide real time overhead imagery of

operations. Internet communications allowed expeditionary forces to push data (mission

operations orders and area atmospheric data) to austere locations. The Internet allowed

chat communications for forces displaced on land, air and sea.[24] During the beginning of

Operation Iraqi Freedom in 2003, soldiers took these technological tools and created

local area networks allowing for faster planning and improved storage of critical data.

Satellite environmental data for objective imagery and weather enhanced the planning

and reduced overall mission risk. These advances allowed Commanders to increase the

mission operational tempo. Flash-forward to today and the proliferation of unmanned

and manned intelligence, surveillance, and reconnaissance (ISR) aircraft provide real

time video of mission terrain and enemy threat.[25] These ISR systems also provided

other types of intelligence and some even provided close air support to ground troops.

Joint operation and tactical operations centers are now wired for real time video feeds

for simultaneous operations via satellite-enabled networks.[26] Over-the-horizon radio

communications and blue force tracking mechanisms, combined with fast computing

and software power, are creating two-dimensional operational depictions of the

battlefield. Over the entire theater of war, Commanders can now note the altitude and

speed of aircraft, as well as, the location of ground forces with integrated ISR video

feeds. These technologies can virtually transport a commander onto the terrain of the

battle.

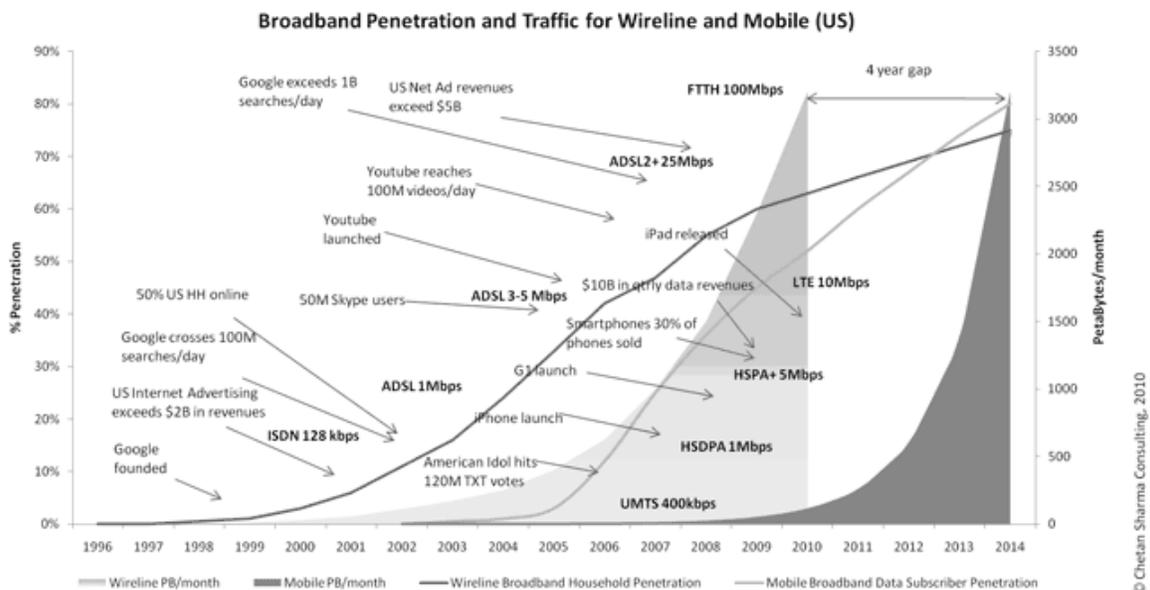Figure 1. Growth in Wireless and Mobile Technology is Escalating[27]

Through the use of streamed multi-intelligence head cams and uniform sensors,

remote leadership will soon possess the ability to virtually command an operational

mission thousands of miles away.[28] This next level of situational awareness and

understanding will provide future leaders an almost god-like ability to affect the mission

cycle.

<u>Commanding a Globally Dispersed Combat Unit</u>

In the spring of 2011, an Army Special Operations Aviation Battalion had globally dispersed. The unit was allocated between the two combat theaters of Iraq (Operation New Dawn) and Afghanistan (Operation Enduring Freedom). During this same period of time, Battalion elements conducted training exercises in the Pacific Theater and simultaneously conducted training in the continental United States. Regardless of his geographic location in the world, the Commander had to ensure each soldier was trained, equipped and inspired to produce mission success.

As the Commander traveled in and out of these dispersed locations, he conducted operations from a sophisticated Tactical Operations Center (TOC) that served as a networked battle command. The TOC allowed the Commander to maintain SA of missions conducted simultaneously over the entire area of responsibility. Through the use of satellite-enabled communications and global positioning system blue force tracking devices, the Commander could note the exact details of the helicopter assault force (HAF) on digital moving terrain. He had the ability to note the location of emergency contingencies and start procedures to resource the HAF package. Additionally, he could send a fragment order and change the mission to multiple HAF packages across the Theater.

Could a commander take advantage of this SA and start to interfere in the decision cycle of these tactical packages? Absolutely. Did it happen? Occasionally. But the overall air and ground force commanders acknowledged this challenge and through discipline refrained from interfering until it was necessary.

One should not understate the leadership challenges this presents. Advanced technological tools connected the leadership amongst globally dispersed locations

enabling command of the unit. The command became virtual via secure means of communications through the use of satellite connectivity and large bandwidth. This technology allowed the Commander to project global leadership and pass on vision and intent. Additionally the Commander transmitted mission orders, pushed resources, and conducted administrative duties on tight timelines. If a leader can accomplish all of this in the current environment, one can imagine how future technologies will increase a remote leader's presence on tomorrow's battlefield or corporate landscape.[29]

Omniscience, Omnipotence, Omnipresence (O3)

The abiding desire of every commander is to see the world through the eyes of a God, and to have a God's power to intervene in events to achieve a desired result. Emerging communications technology will provide the ability for a remote commander to become omniscient, omnipotent, and omnipresent. Can leaders resist the temptation of command apotheosis (the deification of a mortal being)? Enhanced situational awareness does not just make tighter control of subordinates more appealing to strategic leaders, in some situations it makes it more effective. Yet the seduction of global virtual control must be weighed against the danger of senior leader interference, especially in combat. To understand how to manage this balance between levels of control, we must understand the informational context of modern warfare, and we must teach leaders to manage this information efficiently.

Omniscience is to know all.[30] With future technologies to include superior individual sensors and increased objective atmospherics based on unique intelligence gathering systems, it is not a stretch to posit experienced commanders believing they have more knowledge than their subordinate in a combat zone. Their perceived depth of

comprehension or omniscience will make it very hard for a senior leader not to interfere in a subordinate's actions when the leader thinks they have better understanding.

Omnipresence is to be everywhere.[31] Instantaneous situational awareness and satellite-connected technologies will allow distant commanders to be virtually present in the mission. Senior leaders can pull out for a bird's eye view of the terrain or zoom in to view key areas. Senior leaders can provide enhanced situational awareness on the threat and push a decision to a subordinate on the ground who might otherwise have been limited by the fog and friction of the engagement.[32] Satellite communications will give the subordinate mission leader the perception the Commander is present with him or her.

Omnipotence is to possess unlimited power and ability.[33] Not only will impending technologies bring the tactical situation to the remote leader; the capabilities of virtual reality, along with the assistance of artificial intelligence, will enhance the human abilities of the Commander to project their will into the operational environment.[34] A leader's perceived omnipresence, combined with perceived omniscience, will lead to Commanders believing they are omnipotent.
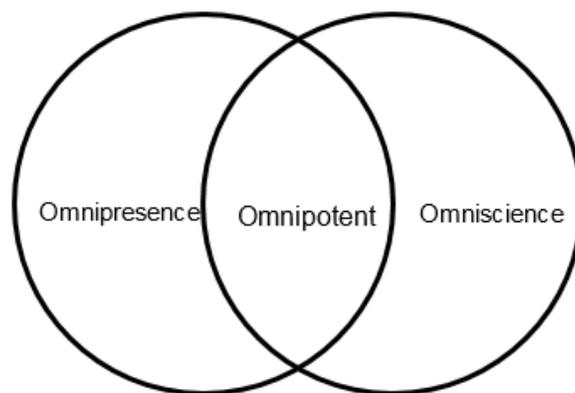

Figure 2. The Perception of O3[35]

<u>Controlling Human Nature</u>

Military units reflect the personality of their Commander. Through his or her influence an organization changes to emulate the Commander's desires. A Commander begins this possessory transformation by emphasizing increased communication up and down the chain-of-command. This demand will result in junior leaders requiring more and more information on the activities of their subordinates in order to increase organizational situational awareness for their senior leader.

Even with the situational awareness O3 provides, Commanders may insist they can restrain themselves in order to empower their subordinate elements. To take control is an inherent desire of command in military operations, and the military system is built around a philosophy of leader control.[36] From day one at boot camp, the military inculcates a culture of 'standard operating procedures' and a 'checklist for every action'. This culture of control, enhanced by O3, will lead to increased influence on the collective mindset of the organization.

Although appealing, the creation of a "hive mind" approach to military operations can become a trap.[37] It leads to unit dysfunction in environments in which communications are severed between tactical units and operational and strategic leaders (like Alexander's decapitation strategy for defeating the Persians).[38] It can also slow adaptation in rapidly evolving combat environments, as a wait-to-be told culture develops.[39] A Commander must limit control when control puts operations at risk, but exert it when it supports operational effectiveness. This is easy (and obvious) to say, but much more difficult in practice

The personality and experience of the leader is critical in creating the right environment to empower subordinates as an inexperienced and unconfident leader may

not empower their subordinates for fear of negative impacts to their future career.[40]

Subordinates must have the flexibility, without undue supervision, to acquire confidence

in the decision-making process and gain the experience needed for the next level of

leadership. The challenge in allowing this subordinate flexibility becomes the fact control

has increased through the introduction of new technologies as it allows leaders to

spread their intent and control throughout larger and more dispersed organizations.[41]

O3 and the Tactical General

As technology increases the remote leader's knowledge, situational awareness,

and virtual presence, the leader must also understand their inherent boundaries on the

battlefield or they will over reach and hinder their vision and intent. Based on the

availability of mission atmospherics, a General will have the same sensory knowledge

of tactical subordinates and potentially more based on the size of his or her staff.[42] In

today's network-enabled operational environment, General officers observe and affect

on-going tactical missions, as Dr. P. W. Singer found in interviews with tactical and

operational commanders:[43]

> One battalion commander in Iraq told how he had 12 stars' worth of
> generals (a four-star general, two three-star lieutenant generals, and a
> two-star major general) tell him where to position his units during a battle.
> A captain in special operations forces recounted how a brigadier general
> (four layers of command up) had radioed him while his team was hunting
> down an Iraqi insurgent who had escaped during a raid. Watching live
> Predator video back at the command center in Baghdad, the general had
> orders for the captain on where to deploy not only his unit but also his
> individual soldiers! Another interviewee described how officers hundreds of
> miles away would tell him which roads his vehicle should take during raids
> in Afghanistan.[44]

Generals must set and enforce boundaries to maintain a balance between the tempo of

operations and interference. Senior leaders must remove risk averse leaders to allow

subordinates to learn and gain the necessary experience for the next level of

leadership.[45] Senior leaders should also strive to create environments in which the complex is simplified and leader priorities are reinforced to prevent subordinates from becoming overwhelmed. Senior leaders must implement training showing subordinates how to use increased situational awareness to resource their elements rather than over control them. They must screen leaders who are unable to synthesize large amounts of information and as a result, resort to undesirable micromanagement. If proper boundaries are set and reinforced throughout the organization, the Army will develop empowered and adaptable leaders capable of using this technology to enhance rather than impede their organizations through enlightened control.[46]
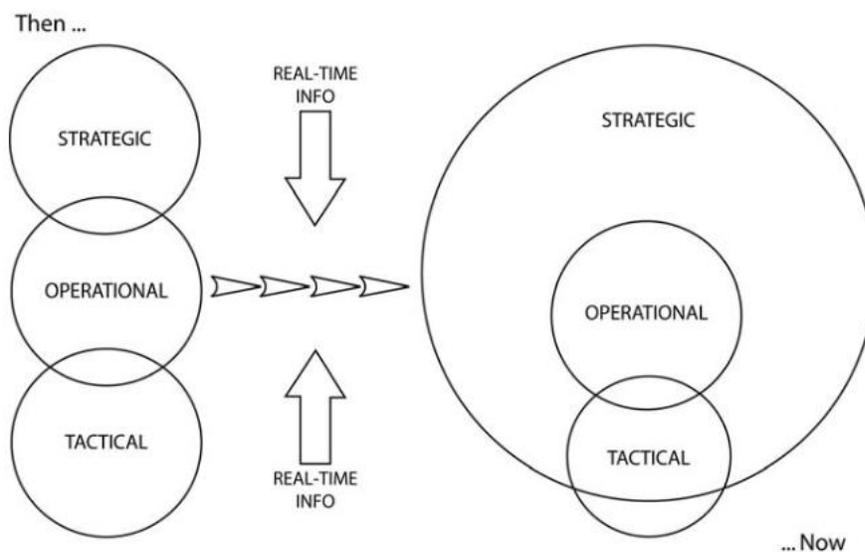
Figure 3. Flattening the Levels of Conflict in the Information Age[47]

Interfering with subordinates, after giving clear mission orders and intent, will inhibit the speed of an operation. The tempo of operations has grown with the information age; increasing mission planning-to-execution almost six fold.[48] In the pre-9/11 environment, where networked planning computers were lacking, the expected timeline for a tactical contingency planning cycle called a CAP (Crisis Action Plan) cycle

was lethargic compared to current planning timelines.[49] In 2004 intelligence sensor systems began to provide more accurate targeting data driving the mission cycle into overdrive and creative Soldiers demanded systems that could reduce this CAP timeline.

Marine General James Cartwright, former commander of US Strategic Command, predicted, "The decision cycle of the future is not going to be minutes . . . The decision cycle of the future is going to be microseconds."[50] This pace of the mission cycle can result in a Commander pushing their experience down past intermediate leadership based on the need to stay within their psychological comfort zone and react quicker than the enemy. As the ability to view the overall environment may cause leaders to push decisions down to the lowest level, Commanders in an O3 environment will have to restrain him or herself from doing so.

In some respects, those leaders possessing *coup d'oeil*, or the "inner eye" that can comprehend the battlefield at a stroke, will possess the knowledge to accept the risk this fast optempo provides.[51] It is imperative experienced and vetted leaders are placed in these positions of responsibility as this optempo may inhibit empowerment and mission command, as a risk averse or inexperienced leader will require more centralized control and oversight.[52]

In an O3 environment, risk aversion is amplified. The risk averse leader will not allow subordinates to conduct their responsibilities for fear of mistakes reflecting on his or her abilities.[53] Risk approval is then taken from the leaders who need it most in order to make decisions that mean mission success or failure. A risk averse leader also loses the ability to exploit tactical advantage and success based on slowing the decision cycle while weighing all of the factors involved in mitigating the tactical or operational risk.

This type of oversight leads to hesitation in making life and death decisions based on the perception of needing higher approval.

In fact, a crucial element of strategic leadership is in jeopardy. The military cannot "buy" strategic leaders from the labor market. There are (except in times of strategic mobilization) no direct commissions from civilian worker to general officer. The military makes its leaders, and subordinate leader development is endangered (ironically) due to risk aversion at the strategic and operational levels.

We stand at a unique point in the history of conflict. Errors in tactical leadership have been a fixture of warfare because they were not preventable. We are approaching an environment in which tactical leaders must be allowed to make errors that are preventable. This is a profound shift, but it is necessary because leader development must train creative thinking, adaptability and initiative to empower subordinate leaders. This then leads to the trust in a subordinate's ability to make sound risk mitigated decisions. This lack of empowerment creates a hesitant and unconfident subordinate who, when the technology fails, may convert a tactical failure into a strategic one. Instead, the exceptional leader can leverage his or her subordinates, realizing the subordinate leader involved in the mission has nuanced insights possibly not available on the O3 systems. Ideally, the non-risk averse leader has a better vantage of the entire common operating picture and the ability to exploit tactical success, mitigate risk, and reinforce contingencies in support of operational and strategic objectives.

Greater situational awareness will enable leaders to influence a large and dispersed organization. Enhanced SA also has the potential downside for interfering with empowered subordinate elements.[54] As leaders use this SA and take more control,

is not this seizure of subordinate responsibilities the true turf war? The centralization of command decisions will inhibit the development of a command climate where initiative, innovation, and exploration are lauded. Leaders must realize these necessary boundaries and instead use these technologies to enhance a subordinate's mission profile. This is accomplished by providing helpful atmospherics, resourcing planned or unforeseen contingencies, and providing mission changes or new post operation mission orders.

The future will also enable instantaneous communications throughout an organization regardless of the geographic location of the leader. The virtual command brings with it positive tools and fundamental challenges with communications.[55] In the military, situational reports about training or combat missions occur via email, satellite radio and telephone connections, or video teleconference. They are necessary for the commander to provide intent, prioritize and make command decisions, especially for a globally displaced force. Otherwise a stagnant environment is created based on a leader who is unaware, overwhelmed, or unavailable.[56]

This increased communication will produce leaders who find themselves in the center of everything and running out of the ability to deal with the amount of input from big data.[57] If this happens, the Commander becomes dysfunctional and is not omniscient, omnipotent, nor omnipresent. Leaders must prioritize their requirements, over large and global displaced organizations and delegate.[58] Commanders must focus on what their level of leadership requires and not get distracted by local level responsibilities unless the level of scrutiny, based on risk, rises to their level.

Finally, leadership is a function of the personality driving the decision making process. The personality and traits of the leader will determine how technology either enhances or impedes an organization's capacity to conduct warfare.[59] It is natural for an individual to want to succeed. Indeed it is so powerful it can interfere with what is better for the organization and its subordinates. Giovanni Gavetti states leaders must become "practitioner psychologists, who expertly analyze and manage their own and others thought processes," as well as, "practitioner economists who expertly analyze and manage incentives."[60] Empowered leaders need to achieve this cognizance or human nature will interfere with leadership in the future O3 connected and virtual environment.

Global Leadership Projection and the Illusion of Complete Empowerment

The Army must train to an empowered and adaptive leadership style per the direction of the Chairman of the Joint Chiefs of Staff, but also admit O3-like abilities will potentially inhibit this style of leadership.[61] By not appreciating the reality of advanced situational awareness brought on by technological evolution in the current and future environment, the Army is not approaching this ever-changing situation appropriately. Mission command is effective if developed in a framework that acknowledges operational control should vary based on the technological and strategic context of the operation.

Joint Publication 3-0, Operations states:

It is important to note that while mission command is the preferred command philosophy, it is not appropriate to all situations. Certain activities require more detailed control, such as the employment of nuclear weapons or other national capabilities, air traffic control, or activities that are fundamentally about the efficient synchronization of resources.[62]

But is it those functions requiring more centralized control or what the Marines call "detailed command and control"?[63] In today's multi-media environment, even small

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tactical mistakes can become negative global phenomena. The speed of information

must get in front of the damaging spin of information by the enemy.[64]

Most have heard of the term strategic corporal and this is a real concern for

strategic and operational leaders.[65] In fact, this trepidation will result in senior leaders

using technological tools to monitor the actions of subordinate elements or demand

situational reports of inconsistencies or actions that could have negative consequences

and require more oversight and control. Leaders must refrain from making immediate

decisions and instead use tactical patience to allow their subordinates the time to react.

As technology continues to progress, leaders must embrace these

advancements. In the hands of an experienced and adept synthesizer an understanding

of the power that can affect the outcome of a given scenario is a force multiplier.[66]

Proper education and training using technological tools will provide the contextual

examples of what not to do when leading an organization. The U.S. Army Training

Doctrine Pamphlet 525-3-3 discusses the training mechanism and leadership qualities

to enable such decentralization. It highlights:

> Training programs and exercises must compel units to operate with
> degraded systems, under degraded conditions, and out of contact with
> their superiors for considerable periods of time so they can practice
> mission command, be challenged to take risks, and evaluated on how well
> they achieve higher commander's intended purpose.[67]

The current and future fiscal environment is daunting, with the average cost of a

National Training Center or Joint Readiness Training Center rotation estimated to run

$25 million with 10 annual rotations per location.[68] The answer to this expensive training

predicament is the use of advanced simulations. Simulations, combined with the most

realistic training leaders are willing to risk, will provide cost effective environments for

subordinate leaders to make mistakes. This will provide these leaders with the

necessary experience to move to the next level of command.[69] Complex training

simulations, designed to prepare leaders for mission command, will ensure "proper

context is co-created by continuous vertical and horizontal interaction across the force

and with the relevant aspects of the operational environment according to the Training

and Doctrine Command Pamphlet 525-3-3, *Functional Concept of Mission Command*.[70]

Additionally, simulations will allow for the Army to retain the conventional--Special

Forces coordination and mission integration that has developed over the last thirteen

years in order to respond to regional friction within the Global Landpower Network.[71]

Simulations will allow for a variety of experiences, which help develop the trust between

the Commander and subordinate. For to empower teams and junior leaders will take a

certain level of trust, especially on today's battlefield.[72]

The current and future volatile, uncertain, complex and ambiguous operational

environment require expeditionary forces that are well trained and have trained

together. The Forces Command Regulation 350-50-1 states "the transformation of the

Army to Army Force Generation (ARFORGEN) with its Training Strategy approach for

its new modular structures is focused on the concept 'trained for what and ready for

what' to prepare them to meet 'plug and play' readiness compatibility requirements."[73]

This plug and play architecture is another obstacle in developing leaders and units able

to implement mission command. The way for senior leaders to confirm the trust in their

subordinate's abilities is to lead and observe their actions, train together, fight together.

Units who train to fight under the same standard operating procedures, techniques,

tactics, and procedures, and doctrine are better served when thrust into a combat

situation.

Relationships built through extensive, realistic training results in commanders able to react quickly and decisively to a given mission, versus taking the time to assess an ad hoc task force thrown together under the plug and play model. Once in theater, the training required to build this new team detracts from the theory of mission command. The Army should also consider allowing soldiers to serve for an extended period of time, in the same unit when such extensions are crucial to operational effectiveness. Allowing soldiers to stay in a unit for longer periods of time would help to develop the skills, historical expertise, and relationships to enable mission command. This recommendation will also provide a proficient expeditionary force that gains regional expertise in order to support the Army's Global Landpower Network.[74]

In order to implement mission command, leaders operating in the O3 future, must realize technology provides part of the science to mission command while the art is to understand the limitations of the same technology. Leaders must synthesize the battlefield in all four dimensions simultaneously and understand how the tactical mission or intent has broader implications. Creating the proper environment and providing the necessary vision, intent and parameters is critical to empowerment. Developing and molding junior leaders and teams, while utilizing the technological tools available, will not only enable the empowerment of the overall organization it will lead to innovative and flexible leaders and team members. These empowered leaders and teams will improve the organization and will react quickly and effectively against a determined enemy in order to win in combat.

Conclusion

It is essential not only the Army, but also the entire Department of Defense, face the reality future technological change brings to the projection of leadership. With the

enhanced situational awareness and the virtual means to communicate decisions on the battlefields of tomorrow, technology is creating a real tension between a senior leader's virtual presence and the possible interference with their subordinate's responsibilities. This technological change means the age-old debate between decentralized and innovative or centralized and efficient will soon dissolve, as advanced devices, bandwidth and big data will bind geographically separated organizations.[75] The O3 future will bring with it the paradoxical conflict between centralized, efficient control and the requirement to maintain the proper barriers between leaders and subordinates.

It is then theorized neither centralized control nor autonomous or semi-autonomous subordinate elements, within the mission command structure, is the true answer in todays and tomorrow's leadership role. As globalization in a volatile international arena requires every technological tool available to allocate limited resources and project the effective use of leadership, the use of advanced technology can enhance the effectiveness of leadership for a globally dispersed organization. Thus it is imperative current and future leaders possess the right mindset and the proper amount of education, training, and restraint to choose the type of leadership necessary for the specific operation in time and space.

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