

A Little Imagination: The Case for Creative Collaboration Between the Army and the Walt Disney Company

A Monograph

by

MAJ Chelsey N. Fortner
US Army



School of Advanced Military Studies
US Army Command and General Staff College
Fort Leavenworth, KS

2021

Approved for public release; distribution is unlimited

REPORT DOCUMENTATION PAGEForm Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY) 20 05 2021		2. REPORT TYPE MASTER'S THESIS		3. DATES COVERED (From - To) JUNE 20-MAY 21	
4. TITLE AND SUBTITLE A Little Imagination: The Case for Creative Collaboration Between the Army and the Walt Disney Company				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) MAJ Chelsey Fortner				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301				8. PERFORMING ORG REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) ADVANCED MILITARY STUDIES PROGRAM				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT As the United States transitions away from twenty years of counterinsurgency, the US Army faces an unprecedented array of unknown future threats. Space, cyber, and information domains increase operational complexity, while near-peer adversaries challenge US interests around the world. Several studies point to the US creative spirit as its greatest asset to combat these threats and thrive in complexity, citing the United States' reputation for individualism, freedom, and creative entrepreneurship. However, the military struggles to balance disciplined structure with this need for a creative approach. US Army doctrine stresses the importance of creative thinking and places creativity and innovation on par with critical thinking, sound judgement, and experience. However, in practice, the US Army's linear, traditional military structure does not provide incentives nor positive examples of creative thinking to improve an organization. When looking outside the military, the Walt Disney Company has nearly 100 years as a beacon of creativity and imagination with animation innovations, revolutionary technology, and unrivaled theme park attractions and robotics. Furthermore, the Walt Disney Company's world-famous Disney Institute teaches thousands about their secrets to creative business and innovative leadership. Disney's creative culture, as well as its established Disney Institute, create an attractive partnership opportunity for the US Army to bolster military imagination and innovative capabilities.					
15. SUBJECT TERMS Creative thinking, creativity, innovation, Disney, mission command, imagination, complexity, leadership					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. PHONE NUMBER (include area code)
(U)	(U)	(U)	(U)	52	913 758-3300

Monograph Approval Page

Name of Candidate: MAJ Chelsey N. Fortner

Monograph Title: A Little Imagination: The Case for Creative Collaboration Between the Army
and the Walt Disney Company

Approved by:

//signed/XX MAY 21/AEC//_____, Monograph Director
Anthony E. Carlson, PhD

//signed/XX MAY 21/RGB//_____, Seminar Leader
Gaetan R. Bedard, COL

//signed 20 APR 21/BAP//_____, Director, School of Advanced Military Studies
Brian A. Payne, COL

Accepted this 20th day of May 2021 by:

Dale F. Spurlin, PhD, Assistant Dean of Academics for Degree Programs
and Research, CGSC

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the US Army Command and General Staff College or any other government agency. (References to this study should include the foregoing statement.)

Fair use determination or copyright permission has been obtained for the inclusion of pictures, maps, graphics, and any other works incorporated into this manuscript. A work of the US government is not subject to copyright, however further publication or sale of copyrighted images is not permissible.

Abstract

A Little Imagination: The Case for Creative Collaboration Between the Army and the Walt Disney Company, by MAJ Chelsey N. Fortner, 52 pages.

As the United States transitions away from twenty years of counterinsurgency, the US Army faces an unprecedented array of unknown future threats. Space, cyber, and information domains increase operational complexity, while near-peer adversaries challenge US interests around the world. Several studies point to the US creative spirit as its greatest asset to combat these threats and thrive in complexity, citing the United States' reputation for individualism, freedom, and creative entrepreneurship. However, the military struggles to balance disciplined structure with this need for a creative approach. US Army doctrine stresses the importance of creative thinking and places creativity and innovation on par with critical thinking, sound judgement, and experience. However, in practice, the US Army's linear, traditional military structure does not provide incentives nor positive examples of creative thinking to improve an organization.

When looking outside the military, the Walt Disney Company has nearly 100 years as a beacon of creativity and imagination with animation innovations, revolutionary technology, and unrivaled theme park attractions and robotics. Furthermore, the Walt Disney Company's world-famous Disney Institute teaches thousands about their secrets to creative business and innovative leadership. Disney's creative culture, as well as its established Disney Institute, create an attractive partnership opportunity for the US Army to bolster military imagination and innovative capabilities.

Contents

Abstract	iii
Contents.....	iv
Acknowledgements	v
Abbreviations	vi
Figures.....	vii
Introduction	1
Transition to Large Scale Combat Operations (LSCO) and Multi-Domain Operations (MDO)	2
Criticism of LSCO and MDO.....	4
The Need for Creative Thinking and Ingenuity.....	7
The Challenge for Creative Thinking in the Military.....	11
How Does The US Army Define Creative Thinking?.....	13
The Nexus Between Creative Thinking and Leadership	15
Complexity and Creative Thinking	18
The Role of Imagination in Military Planning	24
Why the Walt Disney Company? A Brief Disney History.....	27
The Disney Institute	33
Case Studies: Lessons Learned from Walt Disney Leadership	35
Creative Thinkers Do Not Reinvent the Wheel, They Find New Uses for It.....	35
Creative Thinkers Thrive in Complexity and Diversity	38
Creativity is Human-Centered.....	40
Creativity is an Infinite Game	43
Conclusion and Recommendations	46
Bibliography	48

Acknowledgements

To my wonderful husband and daughter. Thank you both, for your patience and support. This would have never happened without you. Thank you to my parents for a lifetime of unconditional love and encouragement. To my dad, for teaching me to appreciate the business and leadership qualities that create the Walt Disney Company magic. A special thanks to Dr. Anthony Carlson as my monograph director. Your patience and enthusiasm for my topic were instrumental in pushing me in the right direction. During this journey, patience deserves more than mere lip service, for behind such a simple word are countless hours of frustration and compromise. Patience, in the full sense of the word, was necessary to help me complete this requirement and for that, I am eternally grateful.

Abbreviations

ADM	Army Design Methodology
CEO	Chief Executive Officer
CGSOC	Command and General Staff Officers Course
CIA	Central Intelligence Agency
CLT	Complexity Leadership Theory
DI	Disney Institute
DoD	Department of Defense
DVD	Digital Versatile Disc
EPCOT	Experimental Prototype Community of Tomorrow
FBI	Federal Bureau of Investigations
GPS	Global Positioning System
MDMP	Military Decision Making Process
NATO	North Atlantic Treaty Organization
NDS	National Defense Strategy
PRC	People's Republic of China
SAMS	School of Advanced Military Studies
VHS	Video Home System

Figures

Figure 1. Original Concept Art for EPCOT.	30
--	----

Introduction

No other country personifies creativity, innovation, and imagination like the United States. From the great experiment of democracy, to the lightbulb, the telephone, the Model-T assembly line, the iPod, and *Star Wars*, the United States is home to some of the most creative minds in the world. Today, the US military faces an operating environment characterized by pandemics, climate change, cyber threats, space warfare, adversarial near-peer actors, and violent extremist organizations. To combat these challenges, the US Army depends on the creative American spirit “to out-think, out-maneuver, out-partner, and out-innovate revisionist powers, rogue regimes, terrorists, and other threat actors.”¹ According to the US Department of Defense (DoD), “the creativity and talent of the American warfighter is our greatest enduring strength, and one we do not take for granted.”² However, US Army leaders face a culture of conformity, anchored to past experiences and tradition.

To break the mold and lead the next generation of creative soldiers, the US Army must partner with organizations who understand complexity and thrive in creative environments. Arguably no other US company epitomizes creativity and imagination to the level of the Walt Disney Company. For nearly a century, Disney has revolutionized the entertainment industry, from synchronized sound, to full-length feature animation, to inventing the theme park, to groundbreaking robotics technology. Disney has cornered the market in turning conceptual creative ideas into commercially successful pathways to the future. Moreover, the Walt Disney Company embraces creativity and innovation as indispensable to its survival as a profitable company. On multiple occasions over the past century, the Disney Company nearly sank into bankruptcy and failure; but it never forgot the creative reinvention that continuously revived the

¹ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America* (Washington, DC: Department of Defense, 2018), 5, accessed 29 March 2021, <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

² *Ibid.*, 8.

Company's economic prospects. After an existential crisis following Walt Disney's death, the Company reemerged, stronger than ever, in what historians call the "Disney Renaissance."³ Through an overwhelming comeback in the 1990s, Disney leaders captured their secrets and the successful creative thinking and leadership that inspires organizational innovation. They created the Disney Institute, teaching thousands of companies, government agencies, and military members successful Disney strategies.

Common trends in Disney's lessons learned draw strong parallels to US Army doctrine on creative thinking. However, as the US Army aspires to inculcate creativity into leadership and operational art, it confronts a culture of conformity and a lack of successful military examples. Through increased collaboration with the Walt Disney Company, either through the Disney Institute or a specially tailored partnership, the US Army can discover new ways to create an organizational culture of creativity and innovation.

Transition to Large Scale Combat Operations (LSCO) and Multi-Domain Operations (MDO)

In 2016, President Donald Trump entered office under a promise to conclude the "endless wars" in hotbeds such as Iraq, Afghanistan, and Syria.⁴ US Military leaders also recognized the eventual end to counterinsurgency operations and began transitioning doctrine and training back to the business of fighting conventional forces. The 2018 National Defense Strategy (NDS) shifted joint force focus to near-peer adversaries, but after two decades of counterinsurgency, the US Army found itself ill prepared for such conflicts. While the US Army fought insurgents in countries without universal access to electricity, countries like the Russia, China, and Iran were studying US technology from afar, developing their own technologies to counter it. According to

³ *Waking Sleeping Beauty*, directed by Don Hahn (Walt Disney Studios Motion Pictures, 2009), Disney+ streaming service.

⁴ Christopher Woody, "What to Know About Trump's Promise to End the 'Endless Wars,'" *Task and Purpose*, 13 September 2020, accessed 10 October 2020, <https://taskandpurpose.com/analysis/donald-trump-endless-wars-promise>.

former Combined Arms Center commander Lieutenant General Michael D. Lundy, “Major regional powers like Russia, China, Iran, and North Korea are actively seeking to gain strategic positional advantage...These nations, and other adversaries...[in] some contexts...already have overmatch or parity, a challenge the joint force has not faced in twenty-five years.”⁵ After two decades, US military leaders who remember fighting tanks and enemy aircraft during Operations Desert Shield and Desert Storm, or who trained against conventional threats before September 11, 2001, are either retired or were too junior at the time to remember operational and strategic planning against near-peer adversaries. Some leaders refer back to the AirLand Battle doctrine of the 1980s and 1990s. However, after twenty-five years of technology advancements, AirLand Battle is an outdated concept.

Today’s operating environment finds both friendly and enemy forces equipped with satellites, Global Positioning System (GPS), social media, cell phones, and secure computer networking, all integrated into tactical, operational, and strategic operations. As a result, the US Army introduced the concept of Multi-Domain Operations (MDO):

The Multi-Domain Operations concept differs from AirLand Battle and requires significant changes to how the Army equips, organizes, synchronizes and projects the force. Synchronization across multiple domains, juxtaposed with the likelihood of access denial and the requirement for sustainment over long distances, will task the Army to consider how to maneuver across expanded battle spaces in the competitive and armed conflict stages. For an *agile and adaptive force* to be successful under this doctrine, reliability and sustainment requirements should be baked into the requirements of our new generation of weapon systems.⁶

MDO is the doctrinal response to near-peer adversaries’ capability to attack across multiple theaters, in both physical and cyber domains, both below and at the threshold of war.

Unfortunately, MDO doctrine is untested and the US Army suffers an overall lack of experience

⁵ Michael D. Lundy, forward to Field Manual (FM) 3-0, *Operations*, by US Department of the Army (Washington, DC: Government Publishing Office, 2017), 2.

⁶ Emphasis Added. Scott King and Dennis B. Boykin IV, “Distinctly Different Doctrine: Why Multi-Domain Operations Isn’t AirLand Battle 2.0,” *Association of the United States Army*, 20 February 2019, accessed 10 October 2020, <https://www.ausa.org/articles/distinctly-different-doctrine-why-multi-domain-operations-isn't-airland-battle-20>.

in near-peer combat. Thus, US DoD counts on the creativity, innovation, and adaptability of its leaders to compensate for this lack of experience.

Criticism of LSCO and MDO

Despite the US Army's attempt to adapt to the new operating environment, critics argue US Army mindsets are too anchored to old AirLand Battle doctrine. Sean McFate, in his book *The New Rules of War*, harshly criticizes Pentagon groupthink, anchored to old paradigms from World War II. According to McFate, "The last time the United States won a conflict decisively, the world's electronics ran on vacuum tubes."⁷ Since then, the United States and its allies hold on to past successes, while facing a very different foe in the insurgency or ideological wars of today. "The West is stuck in quagmires everywhere. The UN's peacekeeping missions have fared no better. Modern war's only constant is that the world's strongest militaries now routinely lose to their weaker enemies."⁸ According to McFate, the US Army's transition back to near-peer adversarial doctrine and new equipment contracts are nothing more than "[doubling] down on one or more of [the US's] core military strengths, such as whiz-bang technology or billion-dollar budgets, but we have been doing that for decades and nothing has improved."⁹ McFate believes the US Military is funding and training for the war they want, not necessarily the current threat environment. "They see war as they wish it to be, not as it is."¹⁰

McFate argues that the world is descending into "durable disorder," where "wars will be fought mostly in the shadows by covert means, and plausible deniability will prove more effective than firepower in an information age. If there are traditional battles, they will not prove decisive...Conflicts will not start or stop, but will grind on... 'peace' will come to mean

⁷ Sean McFate, *The New Rules of War* (New York: HarperCollins, 2019), 14, iBooks.

⁸ Ibid., 15.

⁹ Ibid.

¹⁰ Ibid., 16.

nothing.”¹¹ In this new world of information over firepower and conflicts below the threshold of war, McFate foresees mercenaries and drug lords maintaining this durable disorder. He cites countries in Africa and South America where criminal organizations control more than their governments. McFate argues that the West is “dangerously unprepared” as it continues to fetishize conventional state-on-state conflicts.¹²

An example to support McFate’s argument is in Yemen, where the weakened Yemeni government engages in continuous conflict with the Houthis, an Iran-backed, non-state actor. Since 2015, the Houthis have exercised missile and drone capabilities, on par with conventional states. Their pattern of missile attacks against Saudi critical infrastructure demonstrates emergent operational-level learning, not commonly seen in non-state actors. Analysts worry this trend will spread to other non-state actors in the region: “this trend...may adversely affect the ability of US forces to intervene in regional crises. Conventional armed forces such as the United States military may increasingly face entities using missiles and drones as a rudimentary and low-cost means of an emerging anti-access strategy.”¹³ Just as McFate criticized a strategy focused on state actors, analysts predict “this [Houthis] phenomenon may call for a redefinition of military operations vis-a-vis non-state actors. If the complete destruction of these organizations becomes an unrealistic end state, designing a posture of conventional deterrence against non-state actors like the Houthis may need to be considered.”¹⁴ If US Army leaders expect a conventional fight against states like North Korea, Russia, or China, a future non-state conflict may come as a surprise. Creative thinking is not only necessary to adapt to new MDO doctrine, it is also essential for flexible and rapid readjustments to unforeseen non-state threats.

¹¹ McFate, *The New Rules of War*, 22.

¹² *Ibid.*, 23.

¹³ Jean-Loup C. Samaan, “Missiles, Drones, and the Houthis in Yemen,” *The US Army War College Quarterly* 50, no. 1 (Spring 2020): 63.

¹⁴ *Ibid.*

In addition to military issues, recent forest fires, COVID-19, and climate change all bring into question threat factors not previously considered. Analysts refer to these factors as “compound security dilemmas,” which consist of “traditional security concerns...merged with human health and security issues due to the interconnected nature of our twenty-first century world...”¹⁵ Compound security dilemmas have “fundamentally altered the character of threat and the environment of global geopolitical competition.... [leading to] arguably a breakdown of Western liberal order itself.”¹⁶ Compound security threats consist of previously unaddressed, underlying issues, including economic imbalances; religion, sect, and ethnicity dynamics; resource and environmental scarcities; and artificial borders and boundaries. Analysts suggest that major nation-state threats identified in the 2018 NDS, to include China, Russia, North Korea, and Iran, possess some or all of these compound security threats. As such, “compound threats demand nothing less than compound solutions.”¹⁷ The term “compound” refers to the “increased interaction—interconnectedness and collision—of otherwise once separate policy issues...”¹⁸ By increasing our “imagination, anticipation, forecasting, and planning” across the “entire national security enterprise,” the United States can identify “opportunities to sharpen our focus and apply our resources in more precise and economical ways, at decisive locations, through simultaneously executed named operations and enduring efforts, creating the possibility of achieving overmatching compound wins.”¹⁹ Though these analysts warn of more complex factors affecting the current threat environment, they are hopeful an imaginative strategy can help focus US efforts against an unknown range of future threats.

¹⁵ Isaiah Wilson III and Scott A. Smitson, “The Compound Security Dilemma: Threats at the Nexus of War and Peace,” *The US Army War College Quarterly* 50 no. 2 (Summer 2020): 5.

¹⁶ *Ibid.*

¹⁷ *Ibid.*, 8.

¹⁸ *Ibid.*

¹⁹ *Ibid.*, 14-15.

The Need for Creative Thinking and Ingenuity

Whether the next conflict involves a near-peer adversary with a cyber or information advantage, a non-state actor with conventional technology, an environmental crisis, or a combination of all three, no leader has the perfect experience or manual to plan for what is coming. “Every war—regardless of the objective—is different. Their settlement and results will [always] be unique.”²⁰ Therefore, the US DoD is advocating for more creative thinking, adaptability, and imagination as its greatest weapons to prepare for future conflicts.

Since the United States’ founding, ingenuity and innovation have often tipped the scales to a US advantage in global competition. Today, the 2018 NDS leans heavily on innovation. Though many initiatives emphasize new technology and artificial intelligence, policymakers understand a creative human must leverage this new equipment: “Modernization is not defined solely by hardware; it requires change in the ways we organize and employ forces...the creativity and talent of the American warfighter is our greatest enduring strength, and one we do not take for granted.”²¹ As the United States competes with near-peer adversaries, with technology on par with US capabilities, “Success no longer goes to the country that develops the technology first, but rather to the one that better integrates it and adapts its way of fighting.”²² One major initiative detailed in the NDS is to “Organize for Innovation...empowering the warfighter with knowledge, equipment, and support systems to fight and win.”²³

Part of the US creative advantage lies in its liberal democracy, compared to authoritarian adversaries. Countries like Russia and China cannot compete with US ingenuity while stifling freedom of thought and ideas. Russia’s history of harsh, authoritarian rule is a glaring example of

²⁰ Donald Stoker, *Why America Loses Wars: Limited War and US Strategy from the Korean War to Present* (New York: Cambridge University Press, 2019), 66.

²¹ Department of Defense, *National Defense Strategy*, 7-8.

²² *Ibid.*, 10.

²³ *Ibid.*

how a lack of creative thinking and innovation can have a devastating effect on national survival. Centuries of Russian rulers, from Ivan the Terrible to Joseph Stalin, famously resulted in the mass murder of divergent thinkers and opposing ideas. By the 1970s, the Soviet Union's lack of creative freedom came to a head and signaled the beginning of the end of the Soviet regime:

The Soviet economy was “modern” in that it was largely industrialized and supported a welfare state, but it was not innovative or competitive. Apart from space flight and lasers— and even here Soviet comparative advantages soon lagged— the Soviet Union did not lead in any of the technological innovations made after World War II. These innovations— in computing, telecommunications, energy, material, and medical sciences— were to transform economies in the 1980s and afterward, but the Soviet Union and hence Russia were left behind.²⁴

For the Soviet Union, “a closed, rigid political system precluded the easy mastery of a technological regime that called for flexibility, creativity, and openness.”²⁵ After the Soviet collapse, Russia's democratization “did not lead to flowering creativity and initiative. Instead...Russian life, always latent with...eternally inefficient dictatorships...returned to...self-enclosed micro worlds... [which were] highly nondemocratic.”²⁶ Today, President Vladimir Putin attempts to reconsolidate authority and steady the chaos inflicted from the Soviet Union's collapse. After coming into power, “Putin reintroduced key elements of the traditional Russian state system to rein in the chaos of the 1990s as he centralized and personalized state power; subordinated property rights to state interests; and maintained oversized internal security forces to monitor and control a widely dispersed population of uncertain loyalty.”²⁷ The Russian people may have welcomed Putin's stabilizing authoritarianism, but in the long run, strict state power continues to hurt Russian creative innovation.

²⁴ Neil Robinson, ed., *The Political Economy of Russia* (Lanham, MD: Rowman & Littlefield, 2012), 22, ProQuest Ebook Central.

²⁵ Thomas Graham, “The Sources of Russia's Insecurity,” *Survival* 52, no. 1 (February-March 2010): 62, Adobe Digital Editions PDF.

²⁶ Tim McDaniel, *The Agony of the Russian Idea* (Princeton, NJ: Princeton University Press, 1996), 160, ProQuest Ebook Central.

²⁷ Graham, “The Sources of Russia's Insecurity,” 62.

China also has a reputation for opaque political control, concentration camps, and oppressive treatment against free thinkers and divergent ideas. However, reporting indicates China is actively attempting to correct their creative disparity with the United States. During a US Air Force Research Institute visit to China, the People's Liberation Air Force officers admitted they could overcome US technology in a potential conflict, "but—where they fell short in their eyes—was in ingenuity, independence, and creativity."²⁸ Currently, China compensates for this shortcoming through mass theft of Western innovation. From fashion, to movies and music, to new lightweight steel technology, to cutting-edge defense innovation, China targets US private and public sector industry and takes advantage of their own cheap labor to out-produce the West. "For too long, the United States has treated China as a developing nation to be coaxed and lectured, while tolerating its bad behavior as merely growing pains....[this] assault saps economic growth, costs Americans jobs, weakens our military capability and undercuts a key American competitive advantage—innovation."²⁹ China accounts for most of the estimated 600 billion dollars a year in US intellectual property theft.

However, the United States should not take its creative spirit for granted. Despite Chinese and Russian authoritarianism, both countries are pushing for increased domestic invention and creativity, to compete with the United States. Analysts studied US history as an innovative nation and identified a pattern of creative maturity trends, which they now identify in China. The United States began as an imitator and patent infringer through the 18th and 19th centuries, evolving into a net innovator in the 20th century. When US prosperity hit a certain level in the late 19th and

²⁸ Adam Lowther and Brooke Mitchell, "Professional Military Education Needs More Creativity, Not More History," *War on the Rocks*, 28 May 2020, accessed 12 October 2020, <https://warontherocks.com/2020/05/professional-military-education-needs-more-creativity-not-more-history/>.

²⁹ Dennis C. Blair and Keith Alexander, "China's Intellectual Property Theft Must Stop," *New York Times*, 15 August 2017, accessed 12 October 2020, <https://www.nytimes.com/2017/08/15/opinion/china-us-intellectual-property-trump.html>.

early 20th centuries, “the broad dissemination of knowledge... [led to] incentives to innovate.”³⁰ Analysts see a same pattern and trajectory with China, marked with increased intellectual property laws. Increased intellectual property and patent laws normally correlates with increased domestic innovation. Today, patent protection cases in China are increasing at a rate of forty percent each year. “China’s world leadership in patent quantity—though not in quality—signals its commitment to develop a robust innovation ecosystem at home.”³¹ The United States may focus on Chinese violations to US patents and intellectual property, but Chinese innovation also constitutes a direct challenge to Western interests. Chinese domestic creativity has the potential to counter US defensive technology, and create new approaches to information warfare and operational art.

In addition to China, Russia also shows a growing desire to invest in domestic innovation. Russia views the United States and NATO as its greatest threat. President Putin directly challenges the unipolar world order, centered around the United States, and seeks any opportunity to discredit liberal democracies. After the 2014 annexation of Crimea, crippling sanctions forced Russia to look inward to build capabilities. Russia’s national security strategy, planning out to 2020, uses the word “innovation” eleven times throughout the fifteen-page document. From increased labor productivity, to investment in human capital, to high-tech development, to economic reform, Russia pursues new problem-solving approaches to create a state strong enough to challenge the West.³² The United States risks falling behind in what has historically been an American advantage. The DoD cannot afford to disregard the US creative spirit. Rather, they and their partners must put all their effort behind it.

³⁰ Yukon Huang and Jeremy Smith, “China’s Record on Intellectual Property Rights Is Getting Better and Better,” *Foreign Policy*, 16 October 2019, accessed 25 October 2020, <https://foreignpolicy.com/2019/10/16/china-intellectual-property-theft-progress/>.

³¹ *Ibid.*

³² Vladimir Putin, “National Security Strategy of the Russian Federation to 2020,” Decree of the President of the Russian Federation, no. 537 (12 May 2009), accessed 29 March 2021, [rustrans.wikidot.com/russia-s-national-security-strategy-to-2020](http://www.kremlin.ru/foreign/rustrans.wikidot.com/russia-s-national-security-strategy-to-2020).

The Challenge for Creative Thinking in the Military

US military doctrine stresses creative thinking as a prerequisite to effective problem solving. Though this may seem intuitive, creative thinking is the exception, rather than the rule, within structured bureaucracies. Leaders often sacrifice good ideas in the name of expediency. This is especially true in the military. The rigid command structure, respect for authority, reverence for tradition, and an instinct to “stick to what works” all hinder opportunities to challenge the status quo and experiment with new ideas. Epistemology can help explain the mental biases that stymie military creative thought. Nobel Prize winner and professor of psychology Daniel Kahneman divides mental thinking into two categories, System 1 and System 2. System 1 consists of reflexive, muscle-memory activities, to include driving a car, simple math problems, and survival instincts in life-threatening situations. System 2 consists of more challenging problem-solving and mental activities that require more effort and focus. The demanding cognitive tasks of System 2 can drain mental energy, so the brain will often default to system 1 biases and muscle memories. It takes deliberate effort to shift to System 2 and challenge preconceived notions.³³

US Army soldier training emphasizes System 1 thinking. Basic training and squad-level tasks are designed to develop muscle-memory reactions to enemy fire and other life-or-death situations. Discipline revolves around unquestioning obedience to senior leaders, especially during enemy contact. The more basic trainers can inculcate System 1 reflexive reactions, the better a soldier might react and save his life and others. “System 1 can only do its job of delivering strong conclusions at lightning speed if it never pauses to wonder whether the evidence at hand is flawed or inadequate, or if there is better evidence elsewhere. It must treat the available

³³ Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus, and Giroux, 2011), 41.

evidence as reliable and sufficient.”³⁴ As Kahneman describes, merely being in a room full of people in uniform triggers mental conformity and inhibits creative thought.³⁵ However, when officers ascend to higher planning and command roles, they must break these habits and rebuild their creative abilities.

Though creative thinking may not always be appropriate, as an army private obeys direct orders in combat, the US Army recognizes the need for creativity during planning, especially in terms of operational art. US Army operations doctrine defines operational art as the “arrangement of tactical actions in time, space, and purpose...to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, way, and means...while accounting for risk.”³⁶ In other words, operational art is how US Army leaders arrange tactical engagements, logistics networks, communications architecture, technology, and the commander’s vision as a mutually supporting, interconnected network to fulfill the strategic mission. Operational art consists of highly complex tasks, to include deploying divisions across oceans and continents; maneuvering thousands of soldiers across foreign terrain; and managing command and control via radios, computers, battlefield trackers, and satellite imagery. Such complexity requires creativity to correct ineffective processes and invent unpredictable approaches against an adversary. US Army operations doctrine lists “creativity,” amongst the requisite attributes of skill, knowledge, experience, and judgement, to apply operational art.³⁷

However, Kahneman explains how years of repetition and intense training can hinder creative problem solving. In the absence of actual war, the US Army relies on computer-simulated training exercises to induce stress and test decision-making actions at the operational

³⁴ Philip E. Tetlock and Dan Garner, *Super Forecasting: The Art and Science of Prediction* (New York: Broadway Books, 2015), 35.

³⁵ Daniel Kahneman, *Thinking, Fast and Slow*, 58.

³⁶ US Department of the Army, Army Doctrine Publication (ADP) 3-0, *Operations* (Washington, DC: Government Publishing Office, 2019), 2-1.

³⁷Ibid.

level. Exercises such as Warfighters test a division or corps' ability to act and react during combat operations. As intended, staff officers and commanders feel the stress of competency evaluations, long hour shifts, and competition for resources. Out of mental exhaustion, officers and noncommissioned officers resort to a "just get it done" mentality. Kahneman insists that this mental stress undermines innovation: "When you feel strained, you are more likely to be vigilant and suspicious, invest more effort in what you are doing, feel less comfortable, and make fewer errors, but you also are less intuitive and less creative than usual."³⁸

Furthermore, the more one repeats a routine, the more the brain feels comfortable with inefficiencies or dysfunction. Kahneman illustrates this with an example of driving past a car on fire. After seeing multiple cars on fire at the same location, the brain becomes less alarmed.³⁹ In the US Army, operational commanders have several decades of experience, which may be familiar but ineffective in today's environment. If a commander's computer system never works in the field, or a certain percentage of vehicles are consistently out of commission, commanders and staff will grow accustomed to the dysfunction and it becomes more and more difficult to innovate new ideas to improve operations.

How Does The US Army Define Creative Thinking?

Creative thinking critics often conjure images of half-baked scientists, creating useless inventions in a basement, unable to function in normal society. However, creativity is more than reinventing the proverbial wheel. It can consist of ideas to break the bureaucratic mold, small changes to increase office efficiency, or the shocking idea to do nothing, when a push for change could lead to worse outcomes.

As previously stated, operational art requires creativity to unpredictably and effectively arrange warfighting capabilities. "Operational art...requires creative vision, broad experience,

³⁸ Kahneman, *Thinking, Fast and Slow*, 60.

³⁹ *Ibid*, 71-78.

and a knowledge of capabilities, tactics, and techniques across multiple domains...During planning, commanders and their staffs use the Army design methodology, applying critical and creative thinking to understand, visualize, and describe unfamiliar problems and approaches to solving them.”⁴⁰ In other words, commanders and their staffs cannot outmaneuver an enemy without a creative approach. Operational art is an art for a reason: its application is never the same in new threat environments. As such, the US Army expects novel and innovative approaches to solving each unique problem.

Commanders and US Army planners use the Army Design Methodology (ADM) and conceptual planning as “part of a continuing effort focused on improving the critical and creative thinking abilities of its leaders and teams to understand and solve problems.”⁴¹ ADM is a more abstract, complexity-based method to comprehensively understand military problems. Less structured than MDMP, ADM uses framing techniques, mind mapping, and other intellectual tools within a collaborative environment. The collaborative environment is a command-driven, diverse, and trust-worthy planning space, where participants share their personal experience and expertise, expose any biases, and exercise critical and creative thinking towards a planning objective. ADM defines creative thinking as:

Creative thinking examines problems from a fresh perspective to develop innovative solutions. Creative thinking creates new and useful ideas, and reevaluates or combines old ideas, to solve problems. Leaders face unfamiliar or ill-structured problems that require new or original approaches to solve them. This requires creativity and a willingness to accept change, newness, and a flexible outlook of new ideas and possibilities.

Breaking old habits of thought, questioning the status quo, visualizing a better future, and devising responses to problems requires creative thinking. Leaders face problems unfamiliar or old problems under new conditions. In these situations, leaders apply creative thinking to gain new insights, novel approaches, fresh perspectives, and new ways of understanding and conceiving things.⁴²

⁴⁰ US Army, ADP 3-0, 2-2.

⁴¹ US Department of the Army, Army Techniques Publication (ATP) 5-0.1, *Army Design Methodology* (Washington, DC: Government Publishing Office, 2015), iii.

⁴² *Ibid.*, 1-6.

ADM's collaborative environment is the realm where US Army planners and commanders can experiment more playfully with elements of operational art. It should be a non-attributional, dialogued-driven space to explore new ideas as well as lessons learned from previous experience.

The Nexus Between Creative Thinking and Leadership

US Army creativity requires a conducive command climate. Every staff action, to include planning, intelligence collection, and human resources, exist to provide timely information to support commander decision-making. Staffs cannot innovate without conducive leadership: "Flexibility and innovation are essential elements of any successful operation, and they are products of creative and adaptive leaders."⁴³ For this reason, both US Army mission command and leadership doctrine emphasize creative thinking, placing the onus of a creative environment on the commander:

...commanders create a learning environment that allows participants to think critically and creatively and share their ideas, opinions, and recommendations without fear of reproach...This includes sharing ideas that contradict the opinions held by those of higher rank. Successful commanders listen to novel ideas and counterargument. Effective collaboration is not possible unless commanders enable it.⁴⁴

Creative thinking involves the artful application of one's skill to improve an organization. To do so, innovators must trust the commander will consider their ideas with an open mind.

Creative organizations must also be allowed to try, fail, and discard ineffective practices, which implies accepting risk. Mission command lists competence, mutual trust, disciplined initiative, and prudent risk among its essential criteria. Not only are these qualities essential to mission command, but also to a creatively conducive command environment. US Army mission command doctrine defines creative thinking as

...thinking in new, innovative ways using imagination, insight, and different ideas. Leaders often face unfamiliar problems or old problems requiring new solutions. Even situations that appear familiar require creative solutions, since an enemy force will adapt to past friendly approaches. Leaders look at different options to solve problems using

⁴³ US Army, ADP 3-0, 3-13.

⁴⁴ US Department of the Army, Army Doctrine Publication (ADP) 6-0, *Mission Command* (Washington, DC: Government Publishing Office, 2019), 1-8.

lessons from similar circumstances in the past, as well as innovative approaches that come from new ideas. Creatively combining old and new ideas can create difficult dilemmas for an enemy force.⁴⁵

In addition to mission command, US Army leadership doctrine also lists creativity as an essential attribute of a leader who possesses intellect and mental agility. “Inquisitive or intellectually curious leaders are eager to understand a broad range of topics and keep an open mind to multiple possibilities before reaching decisions.”⁴⁶ More than an internal quality, US Army leaders should also recognize and develop creativity in others. “Leaders inspire and motivate subordinates to bring creative and innovative ideas forward and they seek feedback from subordinates about the climate.”⁴⁷ Leadership doctrine defines innovation as

...the ability to introduce or implement something new. Innovative problem solvers tend to be inquisitive, looking to understand why something is the way it is or questioning how something could work better. Being innovative requires creative thinking that uses both adaptive (drawing from expertise and prior knowledge) and innovative approaches (developing completely new ideas)...Innovative leaders prevent complacency by finding new ways to challenge subordinates with alternative approaches and ideas. They recognize that other people have good ideas and they recognize those who do. To be innovators, leaders rely on intuition, experience, knowledge, and input from subordinates, peers, and superiors. Innovative leaders reinforce team building by making everybody responsible for—and stakeholders in—innovation.⁴⁸

The US Army aims to operationalize creativity and innovation, with the establishment of Army Futures Command (AFC). Within AFC, the 75th Innovation Command in Houston, Texas, “drives operational innovation, concepts, and capabilities to enhance the readiness and lethality of the Future Force by leveraging the unique skills, agility, and private sector connectivity of America's Army Reserve.”⁴⁹ An organization solely devoted to innovation is a step in the right direction, but Innovation Command is exclusive to the US Army Reserve and not integrated into

⁴⁵ US Army, ADP 6-0, 2-5.

⁴⁶ US Department of the Army, Army Doctrine Publication (ADP) 6-22, *Army Leadership* (Washington, DC: Government Publishing Office, 2019), 4-1.

⁴⁷ *Ibid.*, 6-5.

⁴⁸ US Army, ADP 6-22, 4-2.

⁴⁹ “75th Innovation Command,” US Army Reserve, accessed 17 November 2020, <https://www.usar.army.mil/Commands/Functional/75th-Innovation-CMD/About-Us/>.

the broader active duty force. AFC is relatively new, established in 2018, and still strives to generate enthusiasm for its mission.

AFC's Project Convergence partners with active duty units to "innovate, integrate, and inform the future force" on the latest technology and modernization initiatives, focusing on 2035-2050 and beyond.⁵⁰ Project Convergence is a series of demonstrations to units outside of AFC, to better integrate new technology with units actively involved in current mission execution. "Project Convergence includes a continuous, structured series of demonstrations and experiments at various locations."⁵¹ These demonstrations and experiments include Artificial Intelligence (AI), unmanned all-terrain vehicles, new battlefield tracking systems, and communications technology at the tactical level.

Although AFC and the 75th Innovation Command privilege new and divergent ideas, one could argue this isolates creativity and innovation into one US Army command. Relegating creativity to units with "future" and "innovation" in their name may stymie ideas organically emerging from other organizations. Furthermore, Project Convergence focuses on creative technology at the tactical level. This does not appear to address the US Army's discomfort with imagination at the operational level, nor a commander's inability imagine new ideas in an increasingly complex environment. US Army doctrine does not confine creativity, adaptability, flexibility, innovation, and risk to certain technologies or organizations. All leaders, from signal battalion commanders, to infantry corps commanders, must foster climates that foster novel approaches to problems.

Sean McFate also argues against allowing futurists to do all the creative thinking. "There's zero accountability for futurists who are consistently outsmarted by a Magic 8-Ball."⁵²

⁵⁰ John M. Murray, "Army Futures Command" (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 24 November 2020).

⁵¹ "Project Convergence," Army Futures Command, accessed 16 January 2021, <https://armyfuturescommand.com/convergence/>.

⁵² McFate, *The New Rules of War*, 26.

McFate criticizes the US government and military for investing millions of dollars on futurists who do all the thinking for the strategists. “The edifice of military planning is built on the assumptions of futurists, so when they get it wrong—and they almost always do—everything downstream goes awry, too.”⁵³ To understand and thrive in complexity, commanders cannot leave the responsibility of creative thinking to outside organizations.

Complexity and Creative Thinking

US Army creative thinking is essential to understanding complexity and chaos, but as previously stated, the military gravitates towards order and discipline. Linear thinkers are more comfortable with predictability and known solutions, but the real world is inescapably more chaotic. “Chaos is the domain that you don’t understand, which emerges unpredictably. But it is also the domain from which new forms emerge...It is from novelty that the new emerges.”⁵⁴ As such, field grade officers at the Command and General Staff Officers Course (CGSOC) and the School of Advanced Military Studies (SAMS) learn about chaos theory. Upon accepting the world as chaotic, they study complexity theory to navigate this abstract and unpredictable world. “Complexity theory accepts the basic logic of chaos theory, which preceded it, but instead of concentrating on chaos as an indeterminable force at the level of individual decision and actions, complexity theorists instead attempt to understand the fundamental *structure* of chaos.”⁵⁵ In other words, military officers cannot surrender to chaos. Instead, they use complexity to seek patterns, map change, and accept the dynamic effects of their decisions. This is the primary purpose of ADM. “Complexity is the label we...give to the existence of many interdependent variables in a given system. The more variables and the greater their interdependence, the greater the system’s

⁵³ McFate, *The New Rules of War*, 26.

⁵⁴ “Jordan B. Peterson on Femsplainers,” interview by Christina Hoff Sommers and Danielle Crittenden, *Femsplainers on YouTube*, 21 December 2018, accessed 25 November 2020, <https://www.youtube.com/watch?v=hKUffHXOb8U&t=2474s>.

⁵⁵ Everett Carl Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (New York: Routledge, 2005), 94.

complexity.”⁵⁶ Complexity theory came into vogue with the information revolution, internet, and social media. Each consist of webs of interconnected people, countries, events, and perceptions, with cascading effects from altering just one part of the network. Thanks to the information revolution, people can conceptualize complexity better than ever before.

The US Army plans in complexity by recognizing war as an open system, with outside influencers, systems of systems, and interconnected relationships and tensions. Outside actors, criminal organizations, refugee migrations, resource competition, tribal disputes, poor infrastructure, cultural mistranslation, and a myriad of other factors affect the operating environment. Moreover, MDO is a complex system in and of itself, bringing cyber, diplomatic, humanitarian, space, air, sea, and land resources into US Army operations. ADM allows planners and commanders to plan within complex environments. “An operational environment is not isolated or independent but interconnected by various influences (for example, information and economics) from around the globe. No two operational environments are the same...In addition, an operational environment is not static but evolves and redefines itself in potentially unpredictable ways.”⁵⁷ ADM uses “framing” to describe the operating environment, and “reframe” for when it evolves. “Framing involves selecting, organizing, interpreting, and making sense of interrelated variables and relevant actors in an operational environment...the commander and planning team [must] understand the current state and visualize a desired future state...”⁵⁸ Subsequently, “commanders reframe after realizing that desired conditions have changed, are not achievable, cannot be attained through the current operational approach, or because of change of mission or end state. Reframing provides the freedom to operate beyond the limits of any single

⁵⁶ Dietrich Dörner, *The Logic of Failure: Recognizing and Avoiding Error in Complex Situations* (New York: Basic Books, 1996), 38.

⁵⁷ US Army, ATP 5-0.1, 3-1.

⁵⁸ *Ibid.*, 3-1 to 3-2.

perspective.”⁵⁹ Commanders and planners continuously assess, frame, and reframe through the operations process, to adapt faster than their opponent.

First, the US Army must understand complexity on a human-level. “Systems composed of people are really different from systems composed of stars or neutrons.”⁶⁰ The US Army is a people organization first. In the private sector, organizations are beginning to embrace Complexity Leadership Theory (CLT) to connect creative human capital with the ability to navigate complex systems, to “more strongly consider social strategies in driving both performance and innovation within complex organizations.”⁶¹ CLT recognizes that “innovation is as much a social phenomenon within a complex organization as it is a technological one. Successful innovation in a social context requires a thorough understanding of the interplay between cohesion and brokerage.”⁶² CLT describes businesses as two silos: the operational system and the entrepreneurial system. These two systems constantly compete for resources and influence within the organization. CLT proposes that real innovation occurs in an “adaptive space,” where these two systems are allowed to connect or overlap with dynamic tension. “[B]y embracing rather than stifling the dynamic tension between the two systems... [the adaptive space enables] brokerage across clusters to spark emergence of novel ideas...to foster idea development and sharing.”⁶³ CLT embraces tensions, rather than eschewing them, forcing members to leave their silos of similar priorities. “Adaptive practices encourage adaptive responses to the inherent tensions and conflict that arise in bringing multiple groups together...Each adaptive practice has the capacity to improve performance and enhance

⁵⁹ US Army, ATP 5-0.1, 6-2.

⁶⁰ “Joe Rogan Experience #1221 - Jonathan Haidt,” interview by Joe Rogan, *PowerfulJRE*, 7 January 2019, accessed 14 November 2020, <https://www.youtube.com/watch?v=FG6HbWw2RF4&t=10s>.

⁶¹ Michael J. Arena and Mary Uhl-Bien, “Complexity Leadership Theory: Shifting from Human Capital to Social Capital,” *People + Strategy* 29, no. 2 (Spring 2016): 22.

⁶² *Ibid.*, 23.

⁶³ *Ibid.*, 24.

innovation.”⁶⁴ The more organizations force competing sub-groups to adapt to one another, the better the innovation.

US Army planners must recognize this interconnected web of tensions for resources, power, influence, and survival. From a city, which requires a road network for economic prosperity, to the tribe whose food resources would be destroyed from said road construction, each decision carries lasting effects. US Army operational art houses similar tensions for intelligence capabilities, space assets, manpower, equipment, budgets, and other finite resources. CLT could teach the US Army to adapt and embrace complex networks and tensions, to dominate and innovate in the greater complex world. Conversely, the inability to understand complexity or challenge groupthink is detrimental to military organizations.

Complex organizations inherently possess diversity, or “differences among people with respect to goals, values, stakes, assumptions, and perceptions.”⁶⁵ Thus, creative leaders must thrive in said diversity: “when there are a lot of people involved (lots of interdependence), and when the differences among the people are great (a high level of diversity), resolving conflicts in efficient and effective ways becomes much more difficult and complex.”⁶⁶ Diverse organizations often have more than one expert, to whom people can defer for ideas and solutions. With today’s technological and interconnected global networks, this “kind of milieu can produce excellent decisions, highly creative solutions, and very innovative products and services, if it is handled in an effective and responsible way.”⁶⁷ With collaborative leadership, “Original thinking, creative solutions to problems, and innovative products and services make organizations more effective...exciting and interesting. Conversely, if we do not handle complexity well...bureaucratic infighting, parochial politics, and destructive power struggles reduce

⁶⁴ Arena and Uhl-Bien, “Complexity Leadership Theory: Shifting from Human Capital to Social Capital,” 26.

⁶⁵ John P. Kotter, *Power and Influence* (New York: The Free Press, 1985), 17.

⁶⁶ *Ibid.*, 18-19.

⁶⁷ *Ibid.*, 32.

efficiency, raise costs, kill innovation, alienate people, and frustrate nearly everyone.”⁶⁸ ADM doctrine’s collaborative environment is the US Army’s solution to a diverse sharing of expertise and ideas. Likewise, leadership and mission command doctrine make creative organizations a leadership and command function.

Renowned Israeli strategist Dr. Zvi Lanir advocates for a balance between bureaucratic efficiency and respectful debate and argument, to prevent organizational surprises:

Contradiction does not imply disorganization, but a type of organization that lacks central control, fixed order, and stability. Instead, [contradiction] has a type of organization that permits creative social evolution...The essence of the social system’s creativity is freedom, non uniformity, and non synchronous behavior. Slack and buffers are prerequisites, which carry the seeds of novelty. Social systems have to ensure a delicate balance between freedom and control to prevent anarchy and rigidity.⁶⁹

Lanir divides surprises into situational and fundamental. Situational surprises are expected events at unexpected times. Meanwhile, fundamental surprises challenge an entire system, social structure, or paradigm and normally arrive in tandem with a significant crisis. Lanir argues creative nonconformity can prevent fundamental surprises. He believes a lack of creativity hurt the Israeli military in the 1980s: “The colorful individualism and nonconformism that characterized Israel’s generals in its first decades [was] absent in Israel’s generals of the 80s. The new generation of high command [was] more technical...and less concerned about having a holistic view...on fundamental defense issues.”⁷⁰ A series of successes can kill novel ideas for improvement. The more successful the Israeli Army became, the more they fell into rigid, technical mindsets.

Nassim Taleb defines catastrophic fundamental surprises as “black swans.” A black swan is a crisis that catches governments or organizations completely off guard, such as the September 11, 2001 attacks. Black swans stem from a failure to understand complex environments and one’s

⁶⁸ Kotter, *Power and Influence*, 35.

⁶⁹ Zvi Lanir, *Fundamental Surprises* (Ramat Aviv: Center for Strategic Studies University of Tel Aviv, 1983), 51.

⁷⁰ *Ibid.*, 180.

position within them. According to Taleb, creativity is not about predicting the unpredictable future, it is about being flexible and resilient enough to adapt to the complex world in which we find ourselves. In his book *Antifragile*, he criticizes the US intelligence community for focusing more on predicting the future than adapting to change and chaos. “Governments are wasting billions of dollars on attempting to predict events that are produced by interdependent systems and are therefore not statistically understandable at the individual level.”⁷¹ Governments too often attempt to control complexity and artificially impose stability, all in the name of risk avoidance. In reality, randomness, as well as welcoming and learning from small mistakes, make an organization far more resilient. “When you are fragile, you depend on things following the exact planned course, with as little deviation as possible... When you want deviations, and you don’t care about the possible dispersion of outcomes that the future can bring, since most will be helpful, you are antifragile.”⁷² As previously stated, the US Army requires leaders to be adaptive, flexible, and embrace complexity, via means of innovation and creative thinking. However, the US Government's risk-adverse nature does not provide a clear path to these creative goals.

AFC’s Army Research Laboratory (ARL) innovates artificial intelligence (AI) for the US Army out to 2035 and beyond. This includes designing new algorithms to accommodate technology that does not yet exist. ARL says the US Army needs adaptive, creative soldiers who can respond to the new blue-force and enemy technology they will encounter in future combat environments. ARL has exciting new AI projects in production, but in a discussion with SAMS students, two researches said their greatest challenges were cross-collaborative conversations and a risk-adverse culture. With collaboration, AI implementation relies on a convergence between technology, security, and DoD policy. Designers are frustrated that cross-collaborative conversations are not happening as much as they should. Several new inventions are stymied

⁷¹ Nassim Nicholas Taleb, *Antifragile: Things That Gain From Disorder* (New York: Random House, 2012), 132.

⁷² *Ibid.*, 71.

because the security and policy offices are uncomfortable with securing or legally defining them, “we have a people [operations] problem.”⁷³ CLT adaptive spaces, or ADM collaborative environments, could bring legal and security departments earlier into the conversation. With risk, ARL designers recommend looking to the private sector’s risk acceptance in experimenting with new technology. In their own observations, companies like Tesla are driven by the needs of their customers to push new technology, like self-driving cars, into operation. Meanwhile, the US Army does not feel comfortable with risk. Senior decision makers want years of development, evaluation, and reviews. “To remain competitive between periods of armed conflict, during the Compete phase, we will need to re-think our development, evaluation and review processes to reward risk and overcome our fear of failure.”⁷⁴ Mission command also requires risk acceptance to maintain a competitive edge against one’s adversaries, and ARL’s frustrations demonstrate why these mission command principles are so crucial to effective creative thinking.

The Role of Imagination in Military Planning

ADM framing of a desired future end state runs in tandem with scenario development and predictive analysis. A desired end state is just one of countless possible future scenarios. Creative thinkers must be able to imagine as many future scenarios as possible, to adapt and reframe when the operating environment does not unfold as planned: “[Scenarios] provide a tool for ordering one’s perceptions. The point is not to ‘pick one preferred future,’ and hope for it to come to pass...Rather, the point is to make strategic decisions that will be sound for all plausible futures.”⁷⁵ Strategist Maree Conway refers to such foresight as “strategic thinking:” the “intuitive, experimental and necessarily disruptive [aim to] explore ideas beyond logical

⁷³ Sean P. Batir and Brandon Perelman, discussion on Artificial Intelligence and Army Futures Command (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 29 January 2021).

⁷⁴ Ibid.

⁷⁵ Peter Schwartz, *The Art of the Longview* (New York: Crown Business, 1996), xiii-xiv.

thinking...”⁷⁶ With today's dynamic information and technological operating environment, future scenarios require extensive imagination. ADM requires creative leaders to both visualize a better future and break away from the status quo. “Imperfect knowledge and assumptions about the future are inherent in all planning. Planning cannot predict how enemies will react or how civilians will respond to the friendly force or the enemy. Nonetheless, the understanding and learning that occurs during planning...facilitates future decision-making.”⁷⁷ Strategist and forecaster Dr. Peter Scoblic believes the US creative and entrepreneurial spirit generates the greatest imagination, but rigid bureaucracies prevent it from reaching its full potential.⁷⁸

The primary finding from the 9/11 Commission Report was an institutionalized absence of imagination. Despite numerous indicators, most could not imagine a future scenario involving box cutters, commercial jet planes, and thousands of casualties on US soil, all facilitated from “one of the poorest, most remote, and least industrialized countries on earth.”⁷⁹ Leading up to the attacks, intelligence agencies and strategists focused on the Balkans, denuclearizing former Soviet states, and the AIDS/HIV epidemic. Al-Qaeda was widely analyzed up through 1997, but indicators fell out of subsequent reports, “the 1997 update was the last national estimate on the terrorism danger completed before 9/11.”⁸⁰ Per the Report, “It is therefore crucial to find a way of routinizing, even bureaucratizing, the exercise of imagination.”⁸¹

Imagination also helps visualize the operating environment from an adversary's point of view. The 9/11 Commission Report cited an inability to imagine Al-Qaeda's intentions and

⁷⁶ Maree Conway, *Foresight Infused Strategy* (Melbourne, Australia: Thinking Futures, 2019), 66.

⁷⁷ US Army, ATP 5-0.1, 1-2.

⁷⁸ Peter Scoblic, “How to Think About the Future” (lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 12 January 2021).

⁷⁹ National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report* (22 July 2004): 339-340, accessed 29 March 2021, <https://govinfo.library.unt.edu/911/report/911Report.pdf>.

⁸⁰ *Ibid.*, 342.

⁸¹ *Ibid.*, 344.

capabilities from their perspective: “To us, Afghanistan seemed very far away. To members of al Qaeda, America seemed very close. In a sense, they were more globalized than we were.”⁸²

Today with MDO, the US struggles to envision cyber, space, and the information domains from the perspective of its adversaries. “Cyber operations[,] that in a U.S. context might require Title 10 authorizations and authorities[,] are more likely to be employed by the Russians in a pre-conflict scenario or even peacetime...”⁸³ While the US military compartmentalizes cyber authorities and operations, Russia does not restrict their cyber-attacks in the same fashion. The United States’ freedom-of-speech paradigm also struggles to imagine future scenarios involving China’s information operations. The Chinese Communist Party maintains cognitive control of citizens’ ideas over social media. Domestically, Chinese citizens earn their “eligibility for loans, government employment, housing, transportation benefits, and more” with social media activity favorable to Chinese interests.⁸⁴ Internationally, China uses bots and other social media tools to manipulate foreign civilian populations. The People’s Liberation Army (PLA) refers to this domain as the ‘cognitive space.’ “Success in the cognitive space requires taking advantage of prior peacetime preparation to establish favorable conditions—particularly in the realms of diplomacy and public opinion.”⁸⁵ Despite US diplomatic efforts, “The [Chinese] party has no intention of playing by the rules associated with international law, trade, or commerce.”⁸⁶ The US imagination must expand, to understand the Chinese mindset and strategy, so they might counter with strengths of their own: “those ‘Western liberal’ qualities that the Chinese see as weaknesses are actually strengths. The free exchange of information and ideas is an extraordinary competitive

⁸² National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, 340.

⁸³ Department of Defense, *Russia’s Approach to Cyber Warfare* (Arlington, VA: Center for Naval Analysis, 2016), 21.

⁸⁴ H.R. McMaster, “How China Sees the World,” *Atlantic*, May 2020, accessed 29 March 2021, <https://www.theatlantic.com/magazine/archive/2020/05/mcmaster-china-strategy/609088/>.

⁸⁵ Edmund Burke, Kristen Gunness, Cortez Cooper and Mark Cozad. *People’s Liberation Army Operational Concepts* (Arlington, VA: RAND, 2020), 15.

⁸⁶ H.R. McMaster, “How China Sees The World.”

advantage, a great engine of innovation and prosperity.”⁸⁷ A creative imagination is essential to understand, predict, and plan against adversaries in all domains, during peacetime and war.

Why the Walt Disney Company? A Brief Disney History

All the adversity I’ve had in my life, all my troubles and obstacles, have strengthened me.

—Walt Disney

The US defense strategy relies on innovation to maintain a competitive edge, but if resources are not available within, the NDS recommends looking to the private sector for assistance. “The [DoD] will...continue to explore streamlined, non-traditional pathways to bring critical skills into service, expanding access to outside expertise, and devising new public and private partnerships...”⁸⁸ As previously stated, US Army doctrine displays the intent to think creatively, but leaders struggle to create an operational culture that transitions from mere buzzwords into action.

The Walt Disney Company’s success is a testament to the power of creative thinking. Throughout Walt Disney’s life into today, the Company has demonstrated the ability to embrace complexity, encourage diversity, reframe, imagine impossible innovations, create adaptive spaces, and consistently take risks to turn dreams into a reality, which are traits required by today’s US Army. Disney learns from the past and innovates into the future by centering its creative culture on its visionary founder.

Born in Illinois in 1901, Walter Elias Disney entered the cartoon industry as a teenager. After a series of financial failures in Kansas City, Disney relocated to California with associate Ub Iwerks and his brother, Roy O. Disney. In 1928, they astonished audiences with *Steamboat Willie*, the first cartoon to combine animation with synchronized sound, catapulting Mickey

⁸⁷ H.R. McMaster, “How China Sees the World.”

⁸⁸ Department of Defense, *National Defense Strategy*, 8.

Mouse into an international icon.⁸⁹ Disney innovated by combining two existing technologies and envisioning a new future of animated entertainment. In the 1930s, Walt Disney pushed animation further into a fine art form, as the first to combine it with music and color in his *Silly Symphonies* animated shorts. Both US Army doctrine and complexity theorists allude to the fact that people want to work in creative environments, and throughout the 1930s, aspiring animators were flocking to California to work with Walt Disney. By 1937, his team made motion picture history with the world's first full-length animated film, *Snow White and the Seven Dwarfs*. This blockbuster international success financed a new state-of-the-art studio with money to spare. However, as World War II erupted in Europe, Disney would lose the international market for his next innovative ventures.⁹⁰ It would take a US military partnership to prevent economic ruin.

The appeal of a Disney partnership comes from the Company's historical collaboration with the US Army. In WWII, US Army units marched into Walt Disney Studios. Animators not drafted into service were put to work creating propaganda cartoons for the war effort. By 1943, "over 90 percent of the Studio's work consisted of government contracts for the military."⁹¹ In designing a military informational approach, "the Disney war utterance was the most coherent, unified, popular, and powerful: the American answer to the whole of the swastika project."⁹² Disney was the most recognizable animation studio worldwide, even Hitler loved *Silly Symphonies* and *Snow White*. The US military capitalized on Disney's genius: "The brand was fighting the war, and that meant that the line between America, its military, and Disney, a private company, was erased."⁹³ Designing Army insignia and painting bombs and aircraft with beloved

⁸⁹ "American Experience: Walt Disney," Part One, managing director James E. Dunford, aired 14 September 2015, on *PBS* (WGBH Educational Foundation, 2015), iTunes digital copy.

⁹⁰ "American Experience: Walt Disney," Part One, *PBS*.

⁹¹ "American Experience: Walt Disney," Part Two, managing director James E. Dunford, aired 15 September 2015, on *PBS* (WGBH Educational Foundation, 2015), iTunes digital copy.

⁹² Tim Blackmore, *Gorgeous War: The Branding War Between the Third Reich and the United States* (Ontario, Canada: Wilfrid Laurier University Press, 2019), 553, iBooks.

⁹³ *Ibid.*, 539.

characters like Pluto, Dumbo, and Donald Duck, “Disney as a design house was now synonymous with America.”⁹⁴ The US information campaign began years behind the Nazis, but the Walt Disney Company’s expertise made incalculable contributions to the war effort.

Creative minds understand they must keep moving forward, imagining new, potential futures. After the war, Walt Disney reframed his creative ideas out of film, to a new “theme park” concept with attractions for both children and parents. A major business risk, Disney borrowed from his life insurance policy and sold vacation homes and rights to his own name, turning his dream of Disneyland into a reality. Disneyland would be an amusement park without the drunk crowds of seedy places like Coney Island. It would have immersive, cinematically themed atmospheres and well-manicured horticulture like Trivoli Gardens in Europe. This venture suffered ridicule from the established entertainment industry. However, when Disneyland opened on July 17, 1955, “the park drew in a million visitors in its first ten weeks alone. Pretty soon, there were five million per year.”⁹⁵ Dignitaries from all over the world, including the Soviet Union, eagerly flocked to Disneyland for a “Cliff’s Notes version of the American psyche.”⁹⁶

Disneyland’s engineers and designers, or “Imagineers,” used the park as a playground to practice design, experimenting with new technology and ways to manage crowd complexity. Walt Disney, himself, counted the average steps a person took with trash before tossing it on the ground. As a result, designers placed trashcans at shorter intervals to prevent littering. Imagineers used force-projection to make second and third-story levels proportionally smaller but give the illusion of taller buildings. Kodak helped Imagineers identify unappealing colors to the human

⁹⁴ Tim Blackmore, *Gorgeous War: The Branding War Between the Third Reich and the United States*, 548.

⁹⁵ “American Experience: Walt Disney,” Part Two, *PBS*.

⁹⁶ *Ibid.*

eye, and Cast Member-only areas were painted in “go-away green.”⁹⁷ During the 1964 World’s Fair in New York, Disney’s Imagineers created the most popular pavilion attractions, with Disney’s new marvel, “audio-animatronics,” robotic people and animals that realistically talked and moved. After the Fair, Disney moved these attractions to Disneyland, where they are still icons today.

In the 1960s, Disney bought a parcel of land in Florida, bigger than Manhattan, to build on Disneyland’s lessons learned and further innovate. There, Disney’s most ambitious project, the Experimental Prototype Community of Tomorrow (EPCOT), expanded and reframed his creative vision to community planning. EPCOT would be a real city, “a planned environment, demonstrating to the world what American communities can accomplish through...planning and design.”⁹⁸ The circular layout centered on a commercial hub, greenbelt, schools, and residential areas, all networked together through modern public transportation. EPCOT would represent “progress, Disney-style.”⁹⁹ Disney imagined the hub as a collaborative, adaptive space, where companies like General Motors and Ford could work near each other to innovate and share ideas.

DUE TO COPYRIGHT RESTRICTIONS,
IMAGES ARE NOT INCLUDED
IN THIS ELECTRONIC EDITION.

Figure 1. Original Concept Art for EPCOT. Nathaniel Eker, “Why EPCOT Today Looks Nothing Like Walt’s Original Vision,” *Inside the Magic* (blog), 11 June 2020, accessed 10 December 2020, <https://insidethemagic.net/2020/06/disney-original-epcot-city-ne1/>.

⁹⁷ A.J. Wolfe, “11 Times Disney World Tricked Me!,” *DFB Guide* (blog), 23 November 2020, accessed 7 December 2020, https://www.youtube.com/watch?v=jgrx_OFEVFA&list=WL&index=54&t=6s.

⁹⁸ “American Experience: Walt Disney,” Part Two, *PBS*.

⁹⁹ *Ibid.*

Unfortunately, Disney died of lung cancer on December 15, 1966. “Walt Disney represented more than just a guy. He was an ethos, he was a way of approaching life, and whether you hated him or loved him there is no one who can argue his effect on twentieth century culture.”¹⁰⁰ Roy worked to complete Walt’s Florida project, but budgets reduced EPCOT to another theme park.

Fans refer to the subsequent decades as the “Disney Dark Ages,” when Imagineers, animators, and composers felt lost without their creative leader. By 1984, the Walt Disney Company was on the brink of bankruptcy when they hired former Paramount president Michael Eisner as CEO. Eisner related to Walt Disney’s “immense creativity and originality, both as an artist and businessman.”¹⁰¹ Eisner broke the “what would Walt do” stagnation, bolstering Company diversity with new non-Disney talent. Under his creative leadership, stifled ideas received new consideration and no new idea was too crazy or off the table.

During Eisner’s Company shake-up, the animation department reframed and restructured with the help of outside Broadway influence. In 1989, Disney animation exploded back on the map with *The Little Mermaid*, followed by increasingly successful *Beauty and the Beast*, *Aladdin*, and *The Lion King*, prompting “the Disney Renaissance.”¹⁰² During this time, in line with the previously described creative attributes in US Army doctrine and complexity theory, Disney expanded its collaborative environment with new stakeholders like Pixar, a company founded by and comprised of disenfranchised, former Disney animators. Disney and Pixar’s *Toy Story* amazed audiences as the first fully computer-animated feature, another example of the Company pioneering new technology in ways no other entertainment company could imagine.¹⁰³

In 2006, Bob Iger replaced Michael Eisner with a different, yet effective, creativity-

¹⁰⁰ “American Experience: Walt Disney,” Part Two, *PBS*.

¹⁰¹ James B. Stewart, *Disney War* (New York: Simone and Schuster, 2005), 21-24.

¹⁰² *Waking Sleeping Beauty*.

¹⁰³ Stewart, *Disney War*, 104, 241.

driven approach, to maintain the Company's success.¹⁰⁴ Iger incorporated more outside enterprises and gave creative leaders the latitude and financing for new expansions and innovations. As his first order of business, Iger appointed Pixar's John Lassiter as Disney's Chief Creative Officer, leading to another Disney reframe, referred to as "the Disney Revival."¹⁰⁵ Changes included hits like 2009's *The Princess and the Frog*, and a new wave of Parks attractions.¹⁰⁶ Iger's leadership as CEO "facilitated one of the most remarkable revitalizations of any iconic American Brand," boosting Company net profits by more than 300 percent, with acquisitions of Pixar, Marvel, Lucasfilm, and 20th Century Fox.¹⁰⁷ In 2019, Iger launched the Disney+ streaming service, with over 28 million subscribers in its first year. In 2020, Iger announced his transition with successor Bob Chapek through 2021, but promised to keep focus on Disney's "creative endeavors."¹⁰⁸

Today, the Walt Disney Company continues to astonish fans with new creative technology. In 2019, Disneyland and Walt Disney World premiered their new *Star Wars* land, "Galaxy's Edge," one of Disney's most immersive designs to date, with audio-animatronics so life-like, guests have difficulty believing they are machines. Disney Parks rides are the most advanced in the world, and the Company has filed more than a half-dozen new patents in 2020 alone.¹⁰⁹ This includes robots that can walk and hug guests, and audio-animatronics that can jump and balance themselves without support. The "techniques for concealed vehicles reset"

¹⁰⁴ Stewart, *Disney War*, 523.

¹⁰⁵ "Disney Revival," *Disney Wiki on Fandom*, accessed 5 December 2020, https://disney.fandom.com/wiki/Disney_Revival.

¹⁰⁶ Zorianna Kit, "A Minute With: Disney's John Lassiter on Creating Oscar Magic," *Reuters*, 25 February 2010, accessed 5 December 2020, <https://www.reuters.com/article/us-lasseter/a-minute-with-disneys-john-lasseter-on-creating-oscar-magic-idUSTRE61O3K920100225>.

¹⁰⁷ Sarah Whitten, "A look at Bob Iger's legacy at Disney as he steps down as CEO," *CNBC*, 25 February 2020, accessed 5 December 2020, <https://www.cnbc.com/2020/02/25/disney-ceo-bob-iger-steps-down-a-look-at-his-legacy.html>.

¹⁰⁸ *Ibid.*

¹⁰⁹ Wolfe, "11 Times Walt Disney World Tricked Me!"

patent enables ride vehicles to physically transform and then reset in a concealed location.¹¹⁰ In 2018, Disney premiered their “Stuntronic” robots performing trapeze acrobatics, which is expected to revolutionize Hollywood stunt operations.¹¹¹ Such advancements keep fan enthusiasm high. In imagining future scenarios, Disney innovation is shaping the future of the entertainment industry.

The Disney Institute

While Lee Cockerell served as Executive Vice President for Operations at Walt Disney World, he was known for “fostering participation, engagement, and a sense of ownership at every level across the Disney world, [bringing] high morale, high productivity, and real results.”¹¹² In the 1990s, Cockerell’s inclusive leadership and ability to inspire creativity in his employees formed the founding principles of the Disney Institute (DI). DI now trains over a hundred thousand people a year on leadership skills, business practices, and creating a work environment that brings out the creativity in organizations. Alumni include representatives from the National Security Agency (NSA), Hewlett-Packard, and a South African mining company. As of 2008, DI’s core curriculum included courses on “Organizational Creativity.”¹¹³ DI offers online, on-demand, and Disney Destinations courses, tailorable to the specific needs of an organization. On-site, “Disney parks and resorts act as living laboratories, integrating...in-class exploration of Disney methods with first-hand observations in the field.”¹¹⁴ In courses such as “Disney’s Approach to Leadership Excellence” and “Creativity as a competitive advantage,” leaders learn to

¹¹⁰ A.J. Wolfe, “Latest Disney News: New Disney Tech That May Change Your Trip, Restaurant Openings, and New Snacks!” *DFB Guide* (blog), 5 December 2020, accessed 7 December 2020, https://www.youtube.com/watch?v=5F9y-_KFHsg.

¹¹¹ Meredith Geaghan-Breiner and Adrian Traviezo, “Disney’s Stunt Robots Could Change How Hollywood Makes Action Movies,” *Insider*, 20 October 2018, accessed 7 December 2020, <https://www.youtube.com/watch?v=nZ950ywJy0M>.

¹¹² Lee Cockerell, *Creating Magic: 10 Common Sense Leadership Strategies from a Life at Disney* (New York: Doubleday, 2008), x.

¹¹³ *Ibid.*, 13-14.

¹¹⁴ “Home Page,” Disney Institute, accessed 7 December 2020, <https://www.disneyinstitute.com>.

"foster and organize the creative energy of [their] employees."¹¹⁵ Among trainee testimonials, Humana credits DI with helping them save \$50 million, with improved customer service and reduced staff turnover. DI helped the National Football League (NFL) redesign their customer service and engagement for Super Bowl XLVI. For one Chevrolet dealership, DI helped raise their Customer Satisfaction Index to above 90 percent.¹¹⁶ The University of Florida Athletic Department approached DI to help create a collaborative operations plan that included their stadium vendors. The resulting "framework...allowed for a flexible and nimble execution" of stadium operations, allowing the Department to "pivot, adjust, and modify as needed" for different events.¹¹⁷ Not only does DI teach its trainees to think differently and more flexibly, they can tailor programs to the unique customer needs, with experience training the US government and military.

After a 2008 public scandal, Walter Reed Army Medical Center hired DI to train 2,000 hospital workers in "Service, Disney style." While most were skeptical at first, many took valuable lessons from Disney's unconventional approach to problem solving. The "seminar was a useful reminder of the need to combat the 'one-size-fits-all' mentality."¹¹⁸ Many nurses agreed the training was unorthodox, but a much needed creative approach to correct systemic issues. Other alumni government agencies include the FBI, CIA and the National Reconnaissance Office.

DI teaches trainees to take every aspect of their job to the next level. Guest speaker executives share their actual strategies to creative problem solving, refusing to rely solely on

¹¹⁵ "Home Page," Disney Institute.

¹¹⁶ Ibid.

¹¹⁷ "University of Florida Athletic Department wins by making stadium vendors part of the team," Disney Institute, accessed 26 January 2021, <https://www.disneyinstitute.com/about/case-studies/sports-venues/university-of-florida-athletic-department/>.

¹¹⁸ Steve Vogel, "Trying Some Disney Attitude to Help Cure Walter Reed," *The Washington Post*, 25 February 2008, accessed 29 March 2021, <https://www.washingtonpost.com/wp-dyn/content/article/2008/02/24/AR2008022401993.html>.

theory. On-site, trainees “learn the principles, and then see them, first hand in action.”¹¹⁹ Alumni chose Disney because they wanted to work with the best, learning how Disney’s creative success revolves around leadership. Through crosstalk and collaboration with DI instructors and fellow trainees, many left the course with fresh, innovative ideas they were excited to share back at their companies. To create magic, Disney requires “creativity, inspiration, and trust in your team.”¹²⁰ US Army leadership and mission command doctrine mirrors these concepts, requiring an inspirational command climate and mutual trust to inspire innovation and initiative. DI uses similar leadership principles to “[foster] a work environment that breeds creativity,” by “integrating inherent personal creativity with organizational innovation processes.”¹²¹ The Walt Disney Company is arguably more effective at training creative thinking than a think-tank or research institution, because they have tangible proof of their concepts and principles.

Case Studies: Lessons Learned from Walt Disney Leadership

Creative Thinkers Do Not Reinvent the Wheel, They Find New Uses for It

Do what you do so well that they will want to see it again and bring their friends.

—Walt Disney

Walt Disney did not invent animation, but Mickey Mouse became the most recognizable animated character of all time. He did not invent synchronized sound, but was the first to combine it with animation in *Steamboat Willie*, and amusement parks like Coney Island existed long

¹¹⁹ Disney Insider, “Inside Look: 2018 Disney Institute Customer Experience Summit at Walt Disney World Resort,” 6 September 2018, YouTube video, 3 min., 11 sec., accessed 29 March 2021, https://www.youtube.com/watch?v=I8u5_Cl4Aw0&feature=emb_rel_end.

¹²⁰ Tom Craven, “The Disney way: inspiration, creativity, and having faith in your team,” 11 May 2018, TEDx Talks on YouTube, 16 min., 15 sec., accessed 29 March 2021, <https://www.youtube.com/watch?v=bPFhSWwp-ds>.

¹²¹ Talking Point, “Three Keys To Fostering A Work Environment That Breeds Creativity,” Disney Institute (blog), 12 February 2019, accessed 29 March 2021, <https://www.disneyinstitute.com/blog/three-keys-to-fostering-a-work-environment-that-breeds-creativity/>.

before Disneyland. Disney's genius was in his ability to see new opportunities in preexisting inventions. In 1974, when Gerald Gordon and his colleagues studied factors conducive for innovation, they identified two abilities "complementary to an individual's propensity to innovate: the ability to differentiate between objects that seem similar and the ability to find similarities between seemingly unrelated matters."¹²² US Army doctrine also says creativity combines "old and new ideas [to] create difficult dilemmas for an enemy force."¹²³ One example of Disney displaying this quality was during the production of *Snow White and the Seven Dwarfs*.

Late one night in 1934, Walt Disney revealed his plan to create the first full-length, animated film. Over the next three years, Disney staked his studio, mortgaged his home, and endured media ridicule in what was referred to as "Disney's Folly."¹²⁴ Up to then, cartoons were short gag-reels before a feature film. Critics argued no one could endure ninety minutes of endless slapstick. Others claimed extended exposure to color animation would damage a viewer's eyes. However, Disney was not looking to maintain audience laughter. He wanted animation to make an audience cry. He envisioned a potential future in which animated pictures could visually depict a story engaging enough to evoke strong emotions of fear, sadness, joy, and elation.¹²⁵

Animators shared Walt Disney's vision. The excitement of doing the impossible and learning something new every day incentivized artists to work nights and weekends. The team's hard work paid off. On premier night in 1937, audiences laughed at the dwarfs, hid in fear at the Evil Queen, and sobbed during Snow White's funeral wake. The world realized Walt Disney had done something no one else thought possible. Worldwide, more people attended its release than any other film. "Snow White and the Seven Dwarfs set a standard by which all animated feature

¹²² Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity*, 3rd ed. (Burlington, MA: Elsevier, 2011), 41.

¹²³ US Army, ADP 6-0, 2-5.

¹²⁴ "American Experience: Walt Disney," Part One, *PBS*.

¹²⁵ *Ibid*.

films are still judged and was a major stepping stone in Walt Disney's path to becoming Hollywood's greatest producer of family entertainment."¹²⁶ Disney proved hand-drawn animation could evoke the emotions of live-action films. "Art doesn't work unless you get to the big stuff...at the core, the stuff we really wrestle with...*Snow White* had proved animated films could tackle the sweet of the human condition, with all the light and shadow of real life."¹²⁷

In the US Army, field grade officers study operational art, not to invent new technology, but to employ existing technology in ways no one else can imagine. Operational art employs the elements of center of gravity, lines of effort, lines of operations, end state and conditions, decisive points, tempo, phasing and transitions, culmination, operational reach, basing, and risk in an unpredictable, non-formulaic fashion. Commanders and planners must identify how operating situations are similar to past experiences and also how they are different. Moltke the Elder did not invent the railroad, nor was Germany the only country with rail lines. The US Civil War already employed rail, rifles, and the telegraph, but Moltke's artful application of the same technology separated him from his adversaries. His "innovative theories... [and the artful combination of] rapid mobilization, transportation, deployment, movement, and combat into one continuous sequence" led to the "unexpected and rapid defeat of the Imperial French" and Austrian Army after the mid-19th century.¹²⁸ Like Walt Disney, creative military leaders combine preexisting techniques and technology into novel approaches to defeat their enemy.

Furthermore, creative minds must avoid myopic views on the roles of technologies or warfighting functions. During the 2014 Russian invasion of Ukraine, analysts were startled to find Russia's new uses for preexisting capabilities. US defense analyst Dr. Phillip Karber

¹²⁶ "The Making of Walt Disney's Classic *Snow White and the Seven Dwarfs*," directed by Harry Arends, Buena Vista Home Entertainment, 27 April 2017, video, 39 min., accessed 26 November 2020, <https://www.youtube.com/watch?v=a7X8u-EjADw&t=1319s>.

¹²⁷ "American Experience: Walt Disney," Part One, *PBS*.

¹²⁸ Gunther E. Rothenburg, forward to *Moltke On The Art of War: Selected Writings*, ed. Daniel J. Hughes (New York: Ballantine Books, 1993), viii.

witnessed Russians using electronic warfare (EW) more imaginatively than the US Army, expanding it to jamming, intelligence, air defense against drones, and fires targeting. Dr. Karber observed a myriad of creative approaches on both sides: from Russia's experimental use of anti-tank mines, to a Ukrainian commander employing unconventional split-maneuvers during the Battles of Donbas, to Russian integrated EW. These observations demonstrated that the most creative leader survives, while a lack of creativity and adaptation came at the price of thousands of casualties.¹²⁹ In the future, European analysts predict that "Russia's...EW capability will be exploited and effects created well beyond the traditional realms [of] NATO's thinking...We might witness an ever-growing convergence of Russia's EW, cyber and information warfare approaches, which will further challenge NATO's concepts and practices."¹³⁰ To adapt, the US Army must experiment and accept risk by expanding its use of current concepts and technologies.

Creative Thinkers Thrive in Complexity and Diversity

It's kind of fun to do the impossible

—Walt Disney

Setting himself apart from other studios, Walt Disney consistently highlighted his studio's diverse interdependent variables, coming together to innovate entertainment. Disney appreciated the contributions of departments as diverse as music, animation, special effects, and ink and paint. During the productions of *Pinocchio*, *Bambi*, and *Fantasia*, the studio bustled with ballerina dancers, musicians, famous astronomers and conductors, live animals, and Olympian athletes, all collaborating together to create artistic masterpieces.¹³¹ This is an apt example of harnessing

¹²⁹ Phillip Karber, "Dr. Phillip Karber Explains Russian Operations in Ukraine," Modern War Institute, United States Military Academy, West Point, NY, 13 April 2017, video of lecture, accessed 29 March 2021, <https://www.youtube.com/watch?v=14LMmBsDw-g>.

¹³⁰ Roger McDermott, *Russia's Electronic Warfare Capabilities to 2025: Challenging NATO in the Electromagnetic Spectrum* (Eesti, Estonia: International Centre for Defence and Security, 2017), v.

¹³¹ "American Experience: Walt Disney," Part One, *PBS*.

complexity, CLT adaptive spaces, and ADM's collaborative environment.

In 1941, Walt Disney produced *The Reluctant Dragon* to highlight this complexity. In the film, the main character Robert Benchley visits Walt Disney Studios. Benchley gets lost, only to be surprised by a live elephant in the middle of an art class. From there, he stumbles into the sound effects department, where crates, boxes, and improvised household items clamor to create the sounds of a train crash. Next, he wanders onto a sound stage, as two singers perform an operatic duet in the voices of Donald Duck and a clucking chicken. Halfway through the movie, Benchley stumbles into the ink and paint department and the movie transforms from black and white, to full Technicolor. From there, he meets a storyboard team, debating the sequence of a baby-themed cartoon. Finally, Benchley stumbles into Walt Disney himself, depicted as an omnipresent conductor of all the creativity around him. Disney is amused to see Benchley's arms full of concept sketches, 3D modeling art, and other souvenirs from his journey around the Studio, before fondly bidding him farewell.¹³²

Thirteen years later, Walt Disney reprised this window into his studios for the popular *Disneyland* and later *Walt Disney Presents* television shows. Audiences watched artists sketching Aurora for *Sleeping Beauty* one minute, Kirk Douglas battling a giant squid on the set of *20,000 Leagues Under the Sea* the next minute, followed by a backstage look at ride development at Disneyland.¹³³ Each week, Disney celebrated the diverse projects and seemingly chaotic innovation happening in his company. As construction concluded at Disneyland, he said, "I want to pay tribute to the many studio artists, craftsmen, and engineers whose untiring efforts helped bring this dream into a reality. Without their skills and imagination, Disneyland would have not been possible."¹³⁴ Today's the Company is far more complex, with more franchises, employees,

¹³² *The Reluctant Dragon*, directed by Alfred Werker (RKO Radio Pictures, 1941), iTunes digital.

¹³³ "American Experience: Walt Disney," Part One, *PBS*.

¹³⁴ "The Pre-Opening Report From Disneyland," hosted by Walt Disney, *Disneyland*, aired July 1955, on ABC, Disney+, 2:30.

and technology, but appreciation for each individual role continues. Disney shows like *The Imagineering Story*, *One Day at Disney*, and *Disney Insider* highlight Disney's unique appreciation the people behind the magic.

The US Army requires creative and diverse stakeholders to develop novel operational approaches to succeed against near peer adversaries. Internally, the US Army is a complex bureaucracy, comprised of countless interdependent departments. Even at the battalion-level, every warfighting function has a unique role and priority that feeds into the commander's overall mission. While CLT may help separate sections create emergent, unstructured connections, the Walt Disney Company could inform the US Army on how to better appreciate each department's unique contributions, and how to direct diverse and eclectic specialties across its formations.

Creativity is Human-Centered

You can design and create, and build the most wonderful place in the world. But it takes people to make the dream a reality.

—Walt Disney

The Walt Disney Company consistently finds inspiration from the most unexpected places. A *Snow White* sound effects operator ingeniously used his empty leather wallet to create the sound of tiptoes creaking across a wooden floor. Women in the ink and paint department applied their makeup to animation cells to give Snow White more life. In the earliest years of his company, Disney invested heavily in the skills of his people, understanding the need to combine creativity with individual expertise. In Disney's own words, "The first thing I did, when I got a little money to experiment, I put all my artists back in school. We were dealing in motion, movement, the flow of movement, the flow of things...action, reaction, all of that. So we had to set up our own school."¹³⁵ US Army mission command and ADM doctrine likewise lists individual competence and experience as prerequisites for cultivating creativity and innovation.

¹³⁵ "The Making of Walt Disney's Classic Snow White and the Seven Dwarfs."

Disney Institute founder Lee Cockerell attributed his success to the ingenuity of his staff, “If I described every great idea that Disney Cast Members contribute in just one year, it would take up the entire book.”¹³⁶ In two examples, Cockerell highlighted Walt Disney World’s textile service department, which processed laundry along a conveyer belt, run by a tape loop tied together in knots. Whenever the knots broke, the machine jammed and operations stopped, frustrating the Cast Members. One day, the lowest-level engineer on staff offered his US Navy experience to experiment with different knots. When he found the knot that worked, the laundry department saved approximately \$40,000 a year in tape replacements.¹³⁷ In another example, textile service Cast Members used large bins to haul hundreds of pounds of soiled laundry. Sometimes, laundry would stick in the bin corners. To prevent the back-breaking work of digging into the bins, Cast Members “jerry-rigged a tool for themselves by bending a thin piece of wire into the shape of a hook...”¹³⁸ After a few years, sheets and towels tore from the hook’s sharp edges. One day, Cast Members suggested blunting its edges. With some inexpensive help from Disney machinists and a blowtorch, the Company saved “about \$120,000 a year in torn sheets.”¹³⁹

In animation, Don Hahn is the renowned “Disney Renaissance” producer of *Beauty and the Beast* and *The Lion King*. Hahn rejects society’s tendency to restrict creativity to certain professions: “what if creativity had no hierarchy?...we generally feel that actors and film directors are more creative than salespeople or body-shop owners...But on a fundamental level, there is a great value and nobility in all creative processes...Creative people show up in every corner of the Myers-Briggs personality profile test.”¹⁴⁰ To tap individual creative talent,

¹³⁶ Cockerell, *Creating Magic*, 154.

¹³⁷ *Ibid*, 90-91.

¹³⁸ *Ibid*, 154-155.

¹³⁹ *Ibid*.

¹⁴⁰ Don Hahn, *Brain Storm: Unleashing Your Creative Self* (New York: Disney Editions, 2011), 45-47.

organizations must create a collaborative environment. “If everyone is trusting enough to tell the truth in a constructive way, then everything...will be fair game for positive discussion.”¹⁴¹ While traditional hierarchies rely on feedback to work up the chain of command, “in collaborative creative organizations, the information and communication have to flow in every direction.”¹⁴²

Hahn attributes much of the “Disney Renaissance” to lyricist Howard Ashman. When Ashman arrived at Disney animation to assist in the music for *The Little Mermaid*, no one expected him to restructure storylines or change Sebastian into a Caribbean character, but immediately, Ashman became one of the most important creative minds in the movie’s success. Throughout production, animators approached this lyricist with storyline issues and creative challenges.¹⁴³ Ashman tragically died during the premier of *Beauty and the Beast* and halfway through *Aladdin*’s production. The concluding end credits for *Beauty and the Beast* read, “To our friend Howard. Who gave a mermaid her voice and a beast his soul, we will be forever grateful.”¹⁴⁴ The Studio produced two documentaries, celebrating Ashman’s role in saving the Walt Disney Company, a lesson that creativity and magic come from unexpected places.

In US Army practice, innovation may be a collective effort, but it is still driven by individual desire. Individuals must understand their role in a greater, interdependent system of systems, but also feel their unique contributions have meaning: “When an individual feels that his/her contributions to the group’s achievements are insignificant, or when he/she feels powerless to play an effective role in the system’s performance, a feeling of indifference sets in and the individual gradually becomes alienated from the very system in which he/she is supposed to be an active member.”¹⁴⁵ US Army leadership doctrine prescribes building organizations built

¹⁴¹ Hahn, *Brain Storm*, 147.

¹⁴² Ibid.

¹⁴³ *Howard*, directed by Don Hahn (Stone Circle Pictures, 2018), Disney+.

¹⁴⁴ *Beauty and the Beast*, directed by Gary Trousdale and Kirk Wise (Walt Disney Pictures, 1991), 01:24:22, iTunes digital copy.

¹⁴⁵ Gharajedaghi, *Systems Thinking*, 103.

on commitment. “Once a leader builds commitment among followers, they will likely demonstrate more initiative, personal involvement, and creativity. Commitment grows from an individual’s desire to contribute to the organization.”¹⁴⁶ DI’s curriculum includes inspiring passion: “Individuals are more likely to collaborate effectively with team members and contribute to the creative process when they understand and believe in a shared and meaningful purpose.”¹⁴⁷ CLT and diversity principles argue that innovation cannot occur without multiple perspectives. The adaptive space should be a realm for different groups to reach across the aisle and compromise, with innovation as the end-result. Within design methodology, planning should contain a bevy of “stakeholders who can shape the direction a development is taking by asserting their ‘stake’ in its outcome. The lone ingenious designer, who could do everything by him- or herself without the need to listen to other voices, is rapidly becoming history.”¹⁴⁸ Disney Parks employees, from janitors to hotel managers, are “Cast Members,” because every role is a starring role. The DI curriculum focuses on creating similar inclusive and collaborative cultures.

Creativity is an Infinite Game

As long as there is creativity in the world, Disneyland will never be complete.

—Walt Disney

Walt Disney coined the term “plussing” to describe the process of constantly returning to projects to improve them. Disney features like *Snow White*, *Bambi*, and *Peter Pan* became instant classics, enjoying regular re-release in theaters until their eventual release onto VHS. Today, little girls are just as likely to idolize *Snow White*, as more contemporary princess characters. With this in mind, Disney strives to create enduring classics, while continuously improving on previous

¹⁴⁶ US Army, ADP 6-22, 5-2.

¹⁴⁷ Talking Point, “Three Keys to Fostering a Work Environment that Breeds Creativity.”

¹⁴⁸ Klaus Krippendorf, *The Semantic Turn: A New Foundation for Design* (Boca Raton, FL: Taylor & Francis, 2006), 16.

works. Classics like *Cinderella* and *Sleeping Beauty* have been digitally remastered over the years, for re-release onto VHS, DVD, Blu-Ray, and now digital 4K.¹⁴⁹ In the parks, Imagineers continuously update rides with new projection and robotics technology.

Producer Don Hahn advises creative thinkers to be open to change. “In order to be creative...you have to not be afraid to deviate from your plan: you’ll still end up in the same destination...Creativity demands that we be spontaneous enough to follow the merit of a better idea...The entire team, from top to bottom, needs to improvise together....The way we deal with accidents reveals much more about us than does the way we deal with plans.”¹⁵⁰ For Hahn, the work is never over. Art is never perfect and can always be improved. “The most valuable times at Disney are the postmortem meetings we have after a film is completed. We look at places where we could have done better and try to apply those learnings to the next film. It ain’t over when it’s over.”¹⁵¹ Even after producing Disney masterpieces, such as *Beauty and the Beast* and *The Lion King*, Hahn admits, “just when you think it’s over, it takes more work and tenacity to stare at your creation, good or bad, and try to learn from it and move forward.”¹⁵²

During the operations process, US Army commanders understand, visualize, describe, direct, lead, and assess, with “assess” as a circular, never-ending process:

...planning continues as leaders revise the plan based on changing circumstances... During preparation and execution, the order is refined as the situation changes. Through assessment, subordinates and unified action partners provide feedback that often results in modifications to the order. In some circumstances,...commanders reframe their understanding of the operational environment and problems and develop a new plan.¹⁵³

¹⁴⁹ Nick Schager, “Is Disney ruining its cartoon classics?” *Yahoo Entertainment*, 24 April 2018, accessed 29 March 2021, <https://www.yahoo.com/entertainment/disney-ruining-cartoon-classics-140509581.html>.

¹⁵⁰ Hahn, *Brain Storm*, 83-84.

¹⁵¹ *Ibid.*, 94.

¹⁵² *Ibid.*, 94-95.

¹⁵³ US Army, ATP 5-0.1, 1-1 to 1-2.

Planners must understand that the US Army is part of the dynamic and complex operating environment, also changing during the framing and reframing process. In both complexity and design, “We are constantly in the process of becoming.”¹⁵⁴ Developing an operation or strategy “is about the future, and above all it is about change.”¹⁵⁵

Operational planning should be an infinite game, but US Army linear thinkers are more comfortable with finite games, with set players and rules, and conventional conflicts like WWII. In infinite games, players are both known and unknown, rules always change, and the purpose of the game is to maintain a continuous position of advantage.¹⁵⁶ In Afghanistan, the Taliban arguably maintains such an advantage, using non-conventional support from Iran and Pakistan, improvised weapons, and the opium trade, all to outlast NATO’s will to fight. US Army tacticians keep trying to “culminate events” with a decisive engagement, but “for the strategic thinker, who sees no finality in the outcome of events, surprises must be expected...embraced, and seized upon as opportunity.”¹⁵⁷ While the tactician “plays...to win,” strategists seek favorable conditions to “play in the future” because they understand, “nothing is ever truly finished.”¹⁵⁸

The US Army also struggles to stretch its imagination and conceptualize the Russian and Chinese style of non-linear, continuous competition even in peacetime. “Thus strategy, in its simplest form, is a plan for attaining continuing advantage. For the goal of strategy is not to culminate events...but to influence states’ discourse in such a way that it will go forward on favorable terms. For continue it will.”¹⁵⁹ MDO planners must use their imagination to understand adversary intentions below the threshold of war, and imagine planning as a continuous cycle that

¹⁵⁴ Alice Butler-Smith, in-class discussion on design and systems thinking (School of Advanced Military Studies, Fort Leavenworth, KS, 13 November 2020).

¹⁵⁵ Dolman, *Pure Strategy*, 1.

¹⁵⁶ Simon Sinek, “The Infinite Game,” *New York Times*, 31 May 2018, video of lecture, accessed 29 March 2021, <https://www.youtube.com/watch?v=tye525dkfi8>.

¹⁵⁷ Dolman, *Pure Strategy*, 126.

¹⁵⁸ *Ibid.*, 128-129.

¹⁵⁹ *Ibid.*, 6.

does not start with kinetic conflicts. Strategy never ends, so operational planning should constantly evolve, refine, and reframe. Many commanders' linear and, at times, complacent mindsets could learn a lot from observing Disney's continuous improvement and reinvention.

Conclusion and Recommendations

Around here, however, we don't look backwards for very long. We keep moving forward, opening new doors, and doing new things, because we're curious and curiosity keeps leading us down new paths.

—Walt Disney

Senior US Army leaders are searching for innovation and reinvention, as they witness increasing Chinese and Russian aggression in a complex and interconnected global environment linked together through social media, global economies, increasingly mobile populations, and the effects of pandemics and climate change. Ironically, by the time leaders understand the need for creative approaches, they are the most ingrained in traditional practices. Furthermore, their risk-adverse nature prevents the necessary experimentation and fluidity to remain operationally unpredictable. In order to inculcate an innovative culture and generate buy-in, creative training must be both widespread and demonstrate proof of success. Successful US Army leaders, especially, will require significant evidence to change what has worked for them for decades.

To generate widespread inculcation, creativity cannot be relegated to the more "cerebral" combat support or planning staffs. Creative training should target infantry battalion commanders, as much as sustainment brigade commanders or strategic military intelligence staff officers. Additionally, creative training should target more than a handful of select individuals, who only return to a majority status quo at their home units. A significant increase in creative training opportunities can help make innovative mindsets the norm, rather than the exception to the rule.

US Army leaders will require tangible evidence that creativity works, before breaking away from decades of tried and tested practices. Though "creative thinking" and "innovation" appear several times in US Army doctrine, leaders require a path forward to move beyond mere

lip service into measurable and observable action. A creativity think-tank, or contractor company comprised of retired US Army officers, arguably does not have the clout to influence change in skeptical commanders. The Walt Disney Company, however, has a century worth of success in innovation. The Company is literally in the business of creativity. Any trip to a Disney theme park, with mind-blowing robotics and attraction technology, demonstrates how Disney commercially profits from turning innovation into tangible and memorable experiences, far superior to their competitors. Disney Parks' competitive edge is largely comprised of their drive towards continuously improving technology to keep guests returning year after year, demonstrating how Imagineers and Disney executives view creativity as an infinite game of continuous refinement and reinvention. Fortunately, the Company sponsors an Institute to share their leadership secrets of such a successful creative mindset.

Currently, the US Government secures limited DI training slots. Nevertheless, with the ability to tailor DI training to specific requirements, and Disney's collaborative history with the US military back to WWII, a future partnership is not impossible. Some may feel uncomfortable sending soldiers to DI at Walt Disney World, but worrying about the optics of training that looks "too fun" is counterproductive to creating an army that can be both effective and enjoyable. Walt Disney himself said, "Courage is the main quality of leadership, in my opinion, no matter where it is exercised. Usually it implies some risk—especially in new undertakings." If the US Army is serious about its desire for creative and innovative leaders, a partnership with Disney could help move creative thinking from rhetoric into regular practice.

Bibliography

- “American Experience: Walt Disney,” Part One. Managing director James E. Dunford. Aired 14 September 2015, on PBS. WGBH Educational Foundation, 2015. iTunes digital copy.
- “American Experience: Walt Disney,” Part Two. Managing director James E. Dunford. Aired 15 September 2015, on PBS. WGBH Educational Foundation, 2015. iTunes digital copy.
- Arena, Michael J., and Mary Uhl-Bien. “Complexity Leadership Theory: Shifting from Human Capital to Social Capital.” *People + Strategy* 29, no. 2 (Spring 2016): 22-27.
- Army Futures Command. “Project Convergence.” Official Website. Accessed 16 January 2021. <https://armyfuturescommand.com/convergence/>.
- Batir, Sean P., and Brandon Perelman. Discussion on Artificial Intelligence and Army Futures Command. Lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 29 January 2021.
- Beauty and the Beast*. Directed by Gary Trousdale and Kirk Wise. Walt Disney Pictures, 1991. 1 hr., 29 min. iTunes digital copy.
- Blackmore, Tim. *Gorgeous War: The Branding War Between the Third Reich and the United States*. Ontario, Canada: Wilfrid Laurier University Press, 2019. iBooks.
- Blair, Dennis C., and Keith Alexander. “China’s Intellectual Property Theft Must Stop.” *New York Times*, 15 August 2017. Accessed 12 October 2020. <https://www.nytimes.com/2017/08/15/opinion/china-us-intellectual-property-trump.html>.
- Burke, Edmund, Kristen Gunness, Cortez Cooper, and Mark Cozad. *People’s Liberation Army Operational Concepts*. Arlington, VA: RAND, 2020.
- Butler-Smith, Alice. In-class discussion on design and systems thinking. School of Advanced Military Studies, Fort Leavenworth, KS, 13 November 2020.
- Cockerell, Lee. *Creating Magic: 10 Common Sense Leadership Strategies from a Life at Disney*. New York: Doubleday, 2008.
- Conway, Maree. *Foresight Infused Strategy*. Melbourne, Australia: Thinking Futures, 2019.
- Craven, Tom. “The Disney way: inspiration, creativity, and having faith in your team.” 11 May 2018. TEDx Talks on YouTube, 16 min., 15 sec. Accessed 29 March 2021. <https://www.youtube.com/watch?v=bPFhSWwp-ds>.
- Department of Defense. *Summary of the 2018 National Defense Strategy of the United States of America*. Washington, DC: Department of Defense, 2018. Accessed 29 March 2021. <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.
- . *Russia’s Approach to Cyber Warfare*. Arlington, VA: Center for Naval Analysis, 2016.

- Disney Institute. "Home Page." Disney Institute. Accessed 7 December 2020. <https://www.disneyinstitute.com>.
- . "Inside Look: 2018 Disney Institute Customer Experience Summit at Walt Disney World Resort." 6 September 2018. YouTube video, 3 min., 11 sec. Accessed 29 March 2021. https://www.youtube.com/watch?v=I8u5_Cl4Aw0&feature=emb_rel_end.
- . "University of Florida Athletic Department wins by making stadium vendors part of the team." Disney Institute. Accessed 26 January 2021. <https://www.disneyinstitute.com/about/case-studies/sports-venues/university-of-florida-athletic-department/>.
- Disneyland*, "The Pre-Opening Report From Disneyland." Hosted by Walt Disney. Aired July 1955, on ABC. Disney+.
- Disney Wiki. "Disney Revival." *Disney Wiki on Fandom*. Accessed 5 December 2020. https://disney.fandom.com/wiki/Disney_Revival.
- Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*. New York: Routledge, 2005.
- Dörner, Dietrich. *The Logic of Failure: Recognizing and Avoiding Error in Complex Situations*. New York: Basic Books, 1996.
- Eker, Nathaniel. "Why EPCOT Today Looks Nothing Like Walt's Original Vision." *Inside the Magic Blog*, 11 June 2020. Accessed 10 December 2020. <https://insidethemagic.net/2020/06/disney-original-epcot-city-ne1/>.
- Geaghan-Breiner, Meredith, and Adrian Traviezo. "Disney's Stunt Robots Could Change How Hollywood Makes Action Movies." *Insider*, 20 October 2018. Accessed 7 December 2020. <https://www.youtube.com/watch?v=nZ950ywJy0M>.
- Gharajedaghi, Jamshid. *Systems Thinking: Managing Chaos and Complexity*. 3rd ed. Burlington, MA: Elsevier, 2011.
- Graham, Thomas. "The Sources of Russia's Insecurity." *Survival* 52, no. 1 (February-March 2010): 55-74. Adobe Digital Editions PDF.
- Hahn, Don. *Brain Storm: Unleashing Your Creative Self*. New York: Disney Editions, 2011.
- Haidt, Jonathan. "Joe Rogan Experience #1221 - Jonathan Haidt." Interview by Joe Rogan. *PowerfulJRE*, 7 January 2019. Accessed 14 November 2020. <https://www.youtube.com/watch?v=FG6HbWw2RF4&t=10s>.
- Howard*. Directed by Don Hahn. Stone Circle Pictures, 2018. 1 hr., 35 min. Disney+.
- Huang, Yukon, and Jeremy Smith. "China's Record on Intellectual Property Rights Is Getting Better and Better." *Foreign Policy*, 16 October 2019. Accessed 25 October 2020. <https://foreignpolicy.com/2019/10/16/china-intellectual-property-theft-progress/>.
- Kahneman, Daniel. *Thinking, Fast and Slow*. New York: Farrar, Straus, and Giroux, 2011.

- Karber, Phillip. "Dr. Phillip Karber Explains Russian Operations in Ukraine." Modern War Institute, United States Military Academy, West Point, NY, 13 April 2017. Video of lecture. Accessed 29 March 2021. <https://www.youtube.com/watch?v=14LMmBsDw-g>.
- King, Scott, and Dennis B. Boykin IV. "Distinctly Different Doctrine: Why Multi-Domain Operations Isn't AirLand Battle 2.0." *Association of the United States Army*, 20 February 2019. Accessed 10 October 2020. <https://www.USA.org/articles/distinctly-different-doctrine-why-multi-domain-operations-isn-t-airland-battle-20>.
- Kit, Zorianna. "A Minute With: Disney's John Lassiter on Creating Oscar Magic." *Reuters*, 25 February 2010. Accessed 5 December 2020. <https://www.reuters.com/article/us-lasseter/a-minute-with-disneys-john-lasseter-on-creating-oscar-magic-idUSTRE61O3K920100225>.
- Kotter, John P. *Power and Influence*. New York: The Free Press, 1985.
- Krippendorff, Klaus. *The Semantic Turn: A New Foundation for Design*. Boca Raton, FL: Taylor & Francis, 2006.
- Lanir, Zvi. *Fundamental Surprises*. Ramat Aviv: Center for Strategic Studies University of Tel Aviv, 1983.
- Lowther, Adam, and Brooke Mitchell. "Professional Military Education Needs More Creativity, Not More History." *War on the Rocks*, 28 May 2020. Accessed 12 October 2020. <https://warontherocks.com/2020/05/professional-military-education-needs-more-creativity-not-more-history/>.
- Lundy, Michael D. Forward to Field Manual 3-0, *Operations*, by US Department of the Army. Washington, DC: Government Publishing Office, 2017.
- "The Making of Walt Disney's Classic Snow White and the Seven Dwarfs." Directed by Harry Arends. Buena Vista Home Entertainment, 27 April 2017. Video, 39 min. Accessed 26 November 2020. <https://www.youtube.com/watch?v=a7X8u-EjADw&t=1319s>.
- McDermott, Roger. *Russia's Electronic Warfare Capabilities to 2025: Challenging NATO in the Electromagnetic Spectrum*. Eesti, Estonia: International Centre for Defence and Security, 2017.
- McFate, Sean. *The New Rules of War*. New York: HarperCollins, 2019. iBooks.
- McMaster, H.R. "How China Sees the World," *Atlantic*, May 2020. Accessed 29 March 2021. <https://www.theatlantic.com/magazine/archive/2020/05/mcmaster-china-strategy/609088/>.
- Murray, John M. "Army Futures Command." Lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 24 November 2020.
- National Commission on Terrorist Attacks Upon the United States. *The 9/11 Commission Report*. 22 July 2004. Accessed 29 March 2021. <https://govinfo.library.unt.edu/911/report/911Report.pdf>.
- Peterson, Jordan B. "Jordan B. Peterson on Femsplainers." Interview by Christina Hoff Sommers and Danielle Crittenden. *Femsplainers on YouTube*, 21 December 2018. Accessed 25 November 2020. <https://www.youtube.com/watch?v=hKUffHXOb8U&t=2474s>.

- The Reluctant Dragon*. Directed by Alfred Werker. RKO Radio Pictures, 1941. 1 hr., 13 min. iTunes digital copy.
- Robinson, Neil, ed. *The Political Economy of Russia*. Lanham, MD: Rowman & Littlefield Publishers, 2012. ProQuest Ebook Central.
- Rothenburg, Gunther E. Forward to *Moltke On The Art of War: Selected Writings*. Edited by Daniel J. Hughes. New York: Ballantine Books, 1993.
- Russian Federation President. Decree 537. “National Security Strategy of the Russian Federation to 2020.” (12 May 2009). Accessed 29 March 2021. [rustrans.w ikidot.com/russia-s-national-security-strategy-to-2020](https://www.rustrans.w ikidot.com/russia-s-national-security-strategy-to-2020).
- Samaan, Jean-Loup C. “Missiles, Drones, and the Houthis in Yemen.” *The US Army War College Quarterly* 50, no. 1 (Spring 2020): 51-63.
- Schager, Nick. “Is Disney ruining its cartoon classics?” *Yahoo Entertainment*, 24 April 2018. Accessed 29 March 2021. <https://www.yahoo.com/entertainment/disney-ruining-cartoon-classics-140509581.html>.
- Schwartz, Peter. *The Art of the Longview*. New York: Crown Business, 1996.
- Scoblic, Peter. “How to Think About the Future.” Lecture, School of Advanced Military Studies, Fort Leavenworth, KS, 12 January 2021.
- Sinek, Simon. “The Infinite Game.” *New York Times*, 31 May 2018. Video of lecture, 25 min. Accessed 29 March 2021. <https://www.youtube.com/watch?v=tye525dkfi8>.
- Stewart, James B. *Disney War*. New York: Simone and Schuster, 2005.
- Stoker, Donald. *Why America Loses Wars: Limited War and US Strategy from the Korean War to Present*. New York: Cambridge University Press, 2019.
- Taleb, Nassim Nicholas. *Antifragile: Things That Gain From Disorder*. New York: Random House, 2012.
- Talking Point. “Three Keys To Fostering A Work Environment That Breeds Creativity.” Disney Institute (blog). 12 February 2019. Accessed 29 March 2021. <https://www.disneyinstitute.com/blog/three-keys-to-fostering-a-work-environment-that-breeds-creativity/>.
- Tetlock, Philip E., and Dan Garner. *Super Forecasting: The Art and Science of Prediction*. New York: Broadway Books, 2015.
- US Department of the Army. Army Doctrine Publication 3-0, *Operations*. Washington, DC: Government Publishing Office, 2019.
- . Army Doctrine Publication 6-0, *Mission Command*. Washington, DC: Government Publishing Office, 2019.

- . Army Doctrine Publication 6-22, *Army Leadership*. Washington, DC: Government Publishing Office, 2019.
- . Army Techniques Publication 5-0.1, *Army Design Methodology*. Washington, DC: Government Publishing Office, 2015.
- US Army Reserve. “75th Innovation Command.” Official website. Accessed 17 November 2020. <https://www.usar.army.mil/Commands/Functional/75th-Innovation-CMD/About-Us/>.
- Vogel, Steve. “Trying Some Disney Attitude to Help Cure Walter Reed,” *The Washington Post*, 25 February 2008. Accessed 29 March 2021. <https://www.washingtonpost.com/wp-dyn/content/article/2008/02/24/AR2008022401993.html>.
- Waking Sleeping Beauty*. Directed by Don Hahn. Walt Disney Studios Motion Pictures, 2009. 1 hr., 25 min. Disney+ streaming.
- Whitten, Sarah. “A look at Bob Iger’s legacy at Disney as he steps down as CEO.” *CNBC*, 25 February 2020. Accessed 5 December 2020. <https://www.cnbc.com/2020/02/25/disney-ceo-bob-iger-steps-down-a-look-at-his-legacy.html>.
- Wilson, Isaiah III, and Scott A. Smitson. “The Compound Security Dilemma: Threats at the Nexus of War and Peace.” *The US Army War College Quarterly* 50 no. 2 (Summer 2020): 5-17.
- Wolfe, A.J. “11 Times Disney World Tricked Me!” *DFB Guide* (blog), 23 November 2020. Accessed 7 December 2020. https://www.youtube.com/watch?v=jgrx_OFEVFA&list=WL&index=54&t=6s.
- . “Latest Disney News: New Disney Tech That May Change Your Trip, Restaurant Openings, and New Snacks!” *DFB Guide* (blog), 5 December 2020. Accessed 7 December 2020. https://www.youtube.com/watch?v=5F9y-_KFHsg.
- Woody, Christopher. “What to Know About Trump’s Promise to End the ‘Endless Wars.’” *Task and Purpose*, 13 September 2020. Accessed 10 October 2020. <https://taskandpurpose.com/analysis/donald-trump-endless-wars-promise>.