

SELECTED READINGS

FOR THE INFORMATION WARFARE PROFESSIONAL

2020

FOREWORD



COMMANDER 6TH BRIGADE

Learning is a continuous journey for all military professionals and this Information Warfare reference guide is a valuable starting point for thinking about how information interacts with the other levers of national power. To paraphrase former US Defence Secretary, General Mattis, reading won't give you all the answers but it lights what is often a dark path ahead.

This collection of references is one way we seek to develop and promote an understanding of Information Warfare in the Australian Army and across the Australian Defence Force.

The Australian Army's operational concept outlined in *Accelerated Warfare* identifies just how important information is as a lever of power when it states 'competition and conflict define the natural state of the international system - it is a contest for influence, access and information'.

Information War is fought across all domains and at all levels. It is a joint and partnered undertaking that *affects* the physical, psychological and cognitive systems that it targets. To fight and win in the information domain, the military professional must form and lead teams of multidiscipline capabilities that *advise* and *assure* commanders and decision makers, and generate effects that impacts an adversary or supports a partner during times of cooperation, competition and conflict.

I commend this professional learning guide and urge you to take an active role in defining the future of the Australian Defence Force's Information Warfare capabilities.

Brigadier Mark Ascough CSC, DSM

Commander 6th Brigade

@COMD6BDE

06 April 2020



"The modern threat environment... demands an army that is able to contribute to preconflict military effects... by 2035, the ADF will operate both inside and outside declared operations, as circumstances dictate."

Chief of Army, Accelerated Warfare 2035

READING GUIDE





Primer Readings. The primer readings are a great introduction to the opportunities and challenges associated with Information Warfare, in an easily accessible format for all members of the Profession of Arms.



Baseline Readings. The selected baseline readings are intended to provide foundation knowledge for the Information Warfare Professional across a broad range of specialist capabilities and disciplines.



Deep-dive Readings. The deep-dive readings are offered for Information Warfare Professionals to deepen their specialist knowledge, and are complemented by supplementary readings found on page 24 and 25.



Podcasts. Podcasts and websites are included as a convenient, on-demand resource incorporating up to date information on warfare, cognition, intelligence and technical advances.

Feedback

Comments on Selected Readings for the Information Warfare Professional 2020 are welcome and should be forwarded in writing to:

Headquarters 6th Brigade Building Q046 Gallipoli Barracks Enoggera QLD 4051 AUSTRALIA

or via email to:

6BDE.S78@defence.gov.au

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Author

Lieutenant Colonel Michael R. Mudie Information Warfare Transformation Headquarters 6th Brigade "The ADF, by exploiting information and deliberately using informationrelated capabilities. provides a unique contribution to Australia's power. This includes the capabilities to manoeuvre, defend and attack through all domains"

Information War: Manoeuvre in the Information Environment







Baseline



Deep-dive



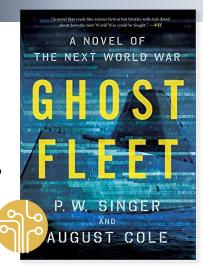
Podcast

Ghost Fleet

Author. P.W. Singer and August Cole

Synopsis. Ghost Fleet: A Novel of the Next World War incorporates real-word emerging trends and technologies into a fictional account of a of a war between the United States, China and Russia. Nearly 400 end-notes document key facts underpinning the novel.

Relevance. An exceptional primer to develop an appreciation of the likely future of multidomain conflict. It provides a compelling overview of how emergent technologies are likely to be used to gain relative decision advantage in the future operating environment.

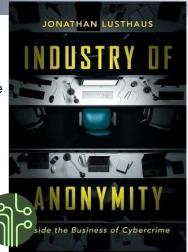


Industry of Anonymity

Author. Jonathan Lusthaus

Synopsis. Industry of Anonymity: Inside the Business of Cybercrime is the most extensive account yet of the lives of cyber criminals and the vast international industry they have created. Deeply sourced and based on field research in the world's technology-crime hotspots.

Relevance. An entertaining and easy to read non-technical work based on extensive interviews with multiple law enforcement agents, cyber security gurus and hackers describing how the industrialisation of cybercrime occurred and is still evolving.

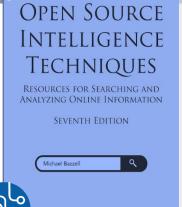


Open Source Intelligence Techniques

Author. Michael Bazzell

Synopsis. Open Source Intelligence
Techniques: Resources for Searching and
Analyzing Online Information shares methods on
locating information about any target through
Open Source Intelligence (OSINT) in great detail.

Relevance. This excellent reference and guide book, covers a comprehensive range of OSINT tactics, techniques and procedures. The detailed content provides legal and ethical methodologies, workflows and toolsets that are suitable for both the beginner and expert OSINT analyst.



"...they also all knew from experience that the best way to accomplish something considered undoable was merely to bring the right minds together."

Ghost Fleet







Baseline



Deep-dive



Podcast

LikeWar

Author. P.W. Singer and Emerson T. Brooking

Synopsis. LikeWar: The Weaponization of Social Media addresses livestream attacks launched by terrorists, the Twitter wars that have real consequences on people and events, and the misinformation that creates political effects. The new battlespace now involves tech, politics, and conflict that all happen on smartphones.

Relevance. This indispensible book addresses the ways the internet and our social networks will be deployed in actual war; recruiting terrorists, remotely inflicting sabotage on a vast scale, and even manipulating reality.

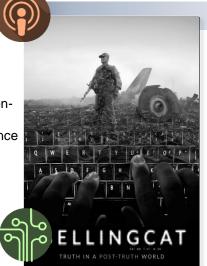


Bellingcat: MH17

Author. Eliot Higgins

Synopsis. Five years in the making, the Bellingcat Podcast series investigates the Malaysia Airlines Flight MH17 crash using open-source journalism and social media research techniques. The series addresses the importance of this type of work in an era of fake news and deliberate misinformation.

Relevance. Bellingcat is an independent investigative website that uses open source tools to expose the truth. This exceptional podcast series demonstrates the techniques and tenacity required to uncover the truth in a post-truth world.

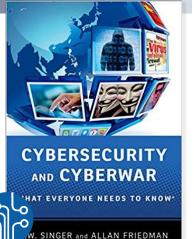


Cybersecurity and Cyberwar

Author. P.W. Singer and Allan Friedman

Synopsis. Cybersecurity and Cyberwar: What Everyone Needs to Know is fascinating and well-written examination of the technology that supports modern society. The authors discuss how cyberspace, security and warfare works, and what every citizen, and especially every military professional, should know.

Relevance. This book provides a definitive account on the full spectrum of cyberspace operations for the educated layman who wants to know more about the nature of war, conflict, and security in the twenty first century.



"...concentration of power creates a new set of gatekeepers, allowing a handful of platforms to control which ideas and opinions are seen and shared... What's more, the fact that power is concentrated among so few companies has made it possible to weaponize the web at scale."

LikeWar







Baseline



Deep-dive



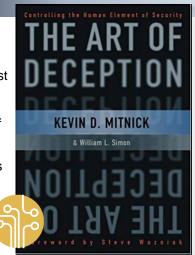
Podcast

The Art of Deception

Author. Kevin D. Mitnick

Synopsis. In the Art of Deception: Controlling the Human Element of Security, the world's most infamous hacker offers an insider's view of the low-tech threats to high-tech security. Kevin Mitnick's exploits as a cyber fugitive form one of the most exhaustive FBI manhunts in history.

Relevance. This fascinating narrative focuses on the human factors involved with information security. It offers advice for preventing social engineering hacks through security protocols, training programs, and manuals addressing the human element of security.

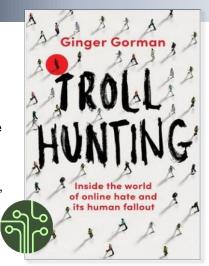


Troll Hunting

Author. Ginger Gorman

Synopsis. Troll Hunting: Inside the World of Online Hate and Its Human Fallout uncovers syndicates of highly organised predator trolls across the globe who systematically set out to disrupt and disturb. Some want to highlight the media's alleged left-wing bias, some want to bring down capitalism, and some just enjoy it.

Relevance. An intense and compelling read, this book provides an important window into the mindset and motivation of trolls. The book explores the history and wide-ranging character of this extremist behaviour.

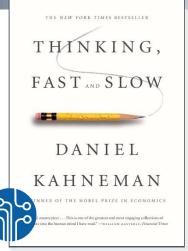


Thinking Fast and Slow

Author. Daniel Kahneman

Synopsis. Thinking Fast and Slow is a groundbreaking tour of the mind explaining the two systems that drive the way we think. System One is fast, intuitive, and emotional; System Two is slower, more deliberative, and more logical. Each of these systems can be understood only by knowing how the two systems work together to shape our judgments and decisions.

Relevance. This book offers practical and enlightening insights into how choices are made and how the Information Warfare Professional can use different techniques to guard against our own cognitive bias.



"The threat is constant; the reminders must be constant as well... the truth is that there is no technology in the world that can prevent a social engineering attack."

The Art of Deception







Baseline



Deep-dive



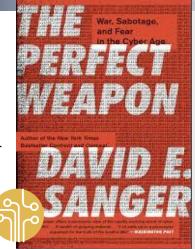
Podcast

The Perfect Weapon

Author. David E. Sanger

Synopsis. The Perfect Weapon: War, Sabotage, and Fear in the Cyber Age takes readers inside war rooms and boardrooms, into the secret cyberdens of American and Chinese military, to give the deep-background story of the increasingly pitched battle between nations, their governments, their cyberwarriors, and their corporations.

Relevance. This is a stunning and incisive look into how cyberwarfare is influencing elections, threatening national security, and bringing us to the brink of global war.

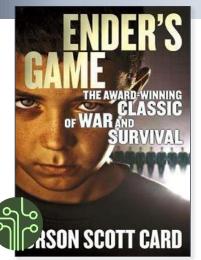


Ender's Game

Author. Orson Scott Card

Synopsis. Ender's Game investigates the use of simulation and networked forces to select leaders and manage combat. It has a subtext about the burden of leadership and the importance in commanders of both compassion and ruthlessness.

Relevance. This is a profound book on the need for compassion and empathy in modern warfare. It also affords a though-provoking study on Generative Adversarial Networks (GAN) and their application for personalised gamefied learning.

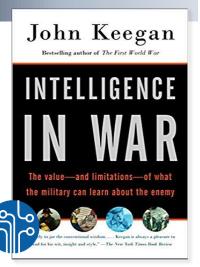


Intelligence in War

Author. John Keegan

Synopsis. Intelligence in War: The value, and limitations, of what the military can learn about the enemy is a masterly look at the value and limitations of intelligence in the conduct of war. Intelligence gathering is an immensely complicated and vulnerable endeavor, and it often fails.

Relevance. In this comprehensive book, John Keegan illustrates that only when paired with force has military intelligence been an effective tool, a principle that remains at the heart of Information Warfare.



"It's no surprise that hackers working for North Korea, Iran, Russia, and China have all learned that the great advantage of cyberweapons is that they are the opposite of a nuke: hard to detect, easy to deny, and increasingly finely targeted.

The Perfect Weapon







Baseline



Deep-dive



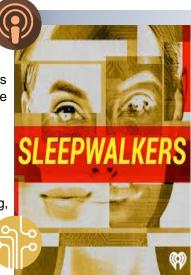
Podcast

Sleepwalkers

Author. Oz Woloshyn

Synopsis. iHeartRadio's Podcast Sleepwalkers employs secret labs and expert guests to explore the AI revolution hands-on, and to see how we can stay in control of our future. Acclaimed host Oz Woloshyn discusses AI in an attempt to understand technology's influence and unravel where we may be headed.

Relevance. Sleepwalkers is thought provoking confronting, intriguing and unnerving. The hosts are able to unravel complex concepts in this compelling and accessible series.

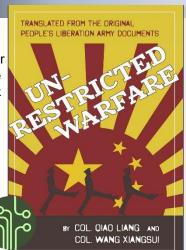


Unrestricted Warfare

Author. Qiao Liang and Wang Xiangsui

Synopsis. Unrestricted Warfare: China's Master Plan to Destroy America is a fascinating example of how different cultures approach war. This work analyses the Chinese 'Unrestricted Warfare' manual, shedding light on Chinese strategic and operational methodology.

Relevance. This book, first published in 1999, proposes tactics for developing countries such as China, to compensate for their military inferiority during a high-tech war. It provides a blueprint for alternative forms of warfare that could be effectively exploited by an adversary.



Tallinn Manual 2.0

Author. Michael N. Schmitt

Synopsis. Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations expands on the highly influential first edition by extending its coverage of the international law governing cyber operations to peacetime legal regimes. Authored by a new group of twenty renowned international law experts, it addresses topics including sovereignty, state responsibility, human rights, and the law of air, space and sea.

Relevance. This influential resource is the most comprehensive analysis of how existing international law applies to cyberspace.

TALLINN
MANUAL 2.0
ON THE
INTERNATIONAL
LAW
APPLICABLE TO
CYBER
OPERATIONS

SECOND EDITION

Prepared by the International Groups of Experts
at the Invitation of the NATIO Cooperative
Cyber Defence Centre of Excellence

"It's getting harder to tell reality from fiction. Fake news and misinformation are all around us, and they're increasingly used as weapons of war."

Sleepwalkers







Baseline



Deep-dive



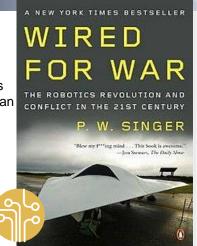
Podcast

Wired for War

Author. P.W. Singer

Synopsis. Wired for War: The Robotics Revolution and Conflict in the 21st Century provides an exploration of the impact of robotics on warfare, surmising that it is as revolutionary an effect as atomic weapons or gunpowder.

Relevance. This book is an essential discussion on the influence that military technology is having on the ways war is fought and the effect that robots will have on the future battlefield. It also considers the ramifications that robotic warfare will have on ethics, lawfare, politics and economics.

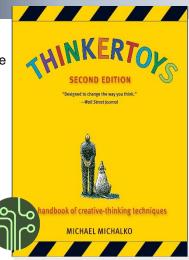


Thinkertoys

Author. Michael Michalko

Synopsis. Thinkertoys: A Handbook of Creative Thinking Techniques from the linear to the intuitive, provides ingenious creative-thinking techniques for approaching problems in unconventional ways by incorporating detailed exercises and creative examples.

Relevance. Applicable to problem solving in a military context, these techniques provide the Information Warfare Professional with practical examples of how to look at the same information as others and identify alternative solutions to real-world problems.

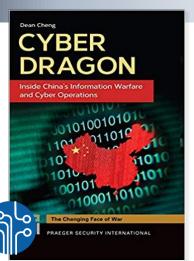


Cyber Dragon

Author. Dean Cheng

Synopsis. Cyber Dragon: Inside China's Information Warfare and Cyber Operations makes extensive use of Chinese-language sources to provide policy-relevant insight into how China views the evolving relationship between information and future warfare.

Relevance. This book provides a framework for assessing China's extensive cyber espionage efforts and multi-decade modernisation of its military. It addresses the 'what' and 'why' behind China's focus on establishing information dominance as a key component of national policy and military power.



"When a robot dies, you don't have to write a letter to its mother."

Wired for War







Baseline



Deep-dive



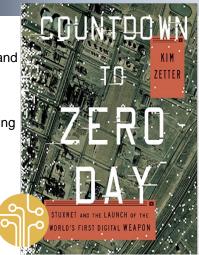
Podcast

Countdown to Zero Day

Author. Kim Zetter

Synopsis. Countdown to Zero Day: Stuxnet and the Launch of the World's First Digital Weapon provides a compelling exploration behind the highly secretive joint United States and Israeli effort to cripple the Iranian nuclear program using the Stuxnet virus.

Relevance. Stuxnet opened Pandora's Box, lifting the lid on the immense potential and tremendous dangers of cyber warfare. This book explores the scope and sophistication of nation-state surveillance and warfare in the information age.

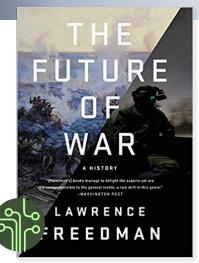


The Future of War

Author. Lawrence Freedman

Synopsis. The Future of War: A History illustrates how those who have imagined future war have often advanced an idealised notion of war as confined, brief, and decisive, and have regularly taken insufficient account of the possibility of long wars – instead seeking a knockout blow, whether through a dashing land offensive, nuclear first strike, or cyberattack.

Relevance. This authoritative book is filled with fascinating snippets of military history and culture that offer an insight into the likely causes and conduct of future warfare.

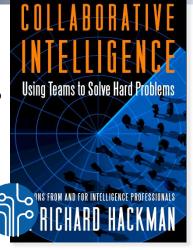


Collaborative Intelligence

Author. J. Richard Hackman

Synopsis. Collaborative Intelligence: Using Teams to Solve Hard Problems underlines the criticality of collaboration. Interdisciplinary and even inter-organizational teams are necessary to solve the really hard problems intelligence professionals face. It lays out the conditions to increase the potential for team effectiveness and criteria for measuring the performance of teams.

Relevance. Written explicitly for the Information Warfare Professional this book is a valuable resource for establishing an environment where teamwork can flourish.



"If the nation went to war today, in a cyberwar, we would lose. We are the most vulnerable. We are the most connected. We have the most to lose."

Countdown to Zero Day







Baseline



Deep-dive



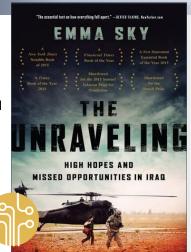
Podcast

The Unraveling

Author. Emma Sky

Synopsis. The Unraveling: High Hopes and Missed Opportunities in Iraq is a detailed and darkly humorous account of the Iraq conflict that tries to understand everyone involved, Iraqis and Americans, on their own terms. Emma Sky served in Iraq longer than any other senior military or diplomatic figure, giving her an unrivaled perspective of the entire conflict.

Relevance. This is an intimate insider's portrait of the Iraq War. it exposes the failure of US national policy and the lessons that must be learned about the limitations of power.



Inside Threat Intelligence

Author. Recorded Future

Synopsis. Inside Threat Intelligence Recorded Future Podcasts take you inside the world of cyber threat intelligence. Sharing stories from the trenches and the operations floor as well as providing inside information on established and emerging adversaries.

Relevance. This podcast series talks current events, technical tradecraft, and offers up insights on the big picture issues in the cyber industry. The Recorded Future team, special guests, and partners from the CyberWire explain the world of cyber threat intelligence.

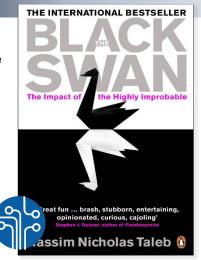


The Black Swan

Author. Nassim Nicholas Taleb

Synopsis. The Black Swan: The Impact of the Highly Improbable explores the black swan - a highly improbable event with three principal characteristics: It is unpredictable; it carries a massive impact; and, after the fact, we concoct an explanation that makes it appear less random, and more predictable, than it was.

Relevance. This vastly entertaining book is elegant, startling, and universal in its application. It will change the way you look at the world and offers simple tricks for dealing with, and benefiting from black swans.



"... the Coalition promised regime change, but instead brought about state collapse."

The Unraveling







Baseline



Deep-dive



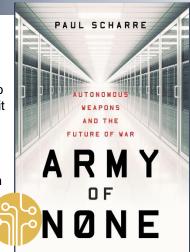
Podcast

Army of None

Author. Paul Scharre

Synopsis. Army of None: Autonomous Weapons and the Future of War uses military history, global policy and cutting edge science to argue that we must embrace technology where it can make war more precise and humane, but without surrendering human judgement.

Relevance. This is an excellent overview, tracing the history of autonomous weapons from early machine guns to contemporary Al and drone technology. It pays as much attention to the political dimension of autonomous weapons as to the underlying technologies.

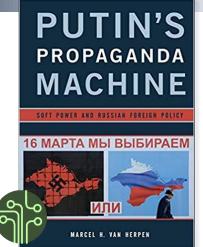


Putin's Propaganda Machine

Author. Marcel H. Van Herpen

Synopsis. Putin's Propaganda Machine: Soft Power and Russian Foreign Policy examines Russia's "information war", one of the most striking features of its intervention in Ukraine. The Kremlin's propaganda offensive is a carefully prepared strategy, implemented and tested over the last decade.

Relevance. This exceptional book show how although initially intended as a tool to enhance Russia's soft power, Information Warfare has quickly developed into one of the main instruments of Russia's national power.

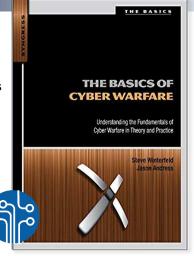


The Basics of Cyber Warfare

Author. Steve Winterfield and Jason Andress

Synopsis. The Basics of Cyber Warfare: Understanding the Fundamentals of Cyber Warfare in Theory and Practice provides readers with fundamental knowledge of cyber war by looking ahead to emerging aspects of cyber security technology and trends, including cloud computing, mobile devices, biometrics and nanotechnology.

Relevance. This concise textbook gives the Information Warfare Professional an overview of cyber threats and outlines the ethics, laws and consequences of cyber warfare.



"Machines can do many things, but they cannot create meaning. They cannot answer these questions for us... The world we are creating is one that will have intelligent machines in it, but it is not for them. It is a world for us."

Army of None







Baseline



Deep-dive



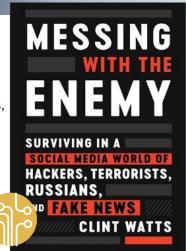
Podcast

Messing with the Enemy

Author. Clint Watts

Synopsis. Messing with the Enemy: Surviving in a Social Media World of Hackers, Terrorists, Russians, and Fake News offers a devastating and critical look at the misinformation campaigns, fake news, and electronic espionage operations that have become the cutting edge of modern warfare, and how we can protect against them.

Relevance. This equally shocking and funny book examines a range of social media platforms and nefarious actors to better understand their intentions, and combat their actions during both competition and conflict.

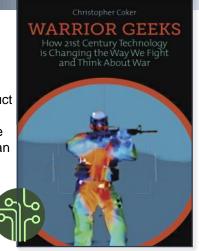


Warrior Geeks

Author. Christopher Coker

Synopsis. Warrior Geeks: How 21st Century Technology is Changing the Way We Fight and Think About War examines how technology is transforming the way we conceive of and conduct wars. It examines three major changes that are driving this process: cybernetic; the coexistence of men and robots in the battlespace; and human performance enhancement and manipulation.

Relevance. This compelling book examines the dangers of how our increasingly unregulated reliance on technologies in modern warfare could lead to the devaluation of our own humanity.

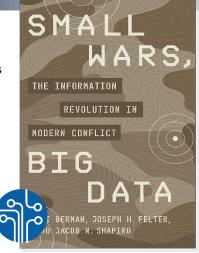


Small Wars, Big Data

Author. Eli Berman and Jacob N. Shapiro

Synopsis. Small Wars, Big Data: The Information Revolution in Modern Conflict gives a transformative understanding of how contemporary confrontations, in which major powers facing rebel insurgencies that deploy elusive methods, should be fought.

Relevance. Essential reading for the Information Warfare Professional, this book draws practical lessons from the past two decades of conflict and provides groundbreaking perspectives on how we can better approach operational design.



"America sucks at information warfare, absolutely sucks. Democracies stand for freedom, liberty, and human rights... so stopping terrorists or nefarious Russian influence... gets quite tricky."

Messing with the Enemy







Baseline



Deep-dive



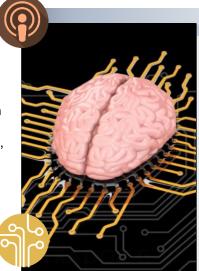
Podcast

The Mad Scientist Laboratory

Author. US Army TRADOC

Synopsis. The Mad Scientist Laboratory is a US Army Training and Doctrine Command (TRADOC) initiative and a community of action that continually explores the future through partnerships and open dialogue with academia, industry and government.

Relevance. This blog is a forum for the Information Warfare Professional to access a marketplace of ideas about the future of conflict by engaging with world-class experts and thought leaders envisioning the Deep Future Operational Environment.



@War

Author. Shane Harris

Synopsis. @War: The Rise of the Military-Internet Complex is a surprising, page-turning account of how the wars of the future are already being fought today. The US DoD, the NSA and the CIA all field teams of hackers who launch computer virus strikes against enemy targets in the "fifth domain" of warfare.

Relevance. This fascinating book delves into the frontlines of America's new cyber war, showing how government agencies are joining with tech giants and finance companies to patrol cyberspace.

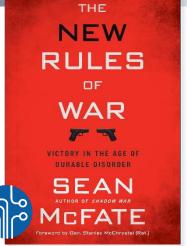


The New Rules of War

Author. Sean McFate

Synopsis. The New Rules of War: Victory in the Age of Durable Disorder is an urgent, fascinating exploration of war, past, present and future. We are living in a period of extreme unrest: China's rise, Russia's resurgence, America's retreat, global terrorism, international criminal empires, climate change, dwindling natural resources, and bloody civil wars.

Relevance. This excellent book seeks a better understanding of the complex rules for the future of military engagement and the ways we can fight and win in an age of entropy.



"No one in this room can accurately predict the future, ... the character of war is changing before our eyes -with the introduction of new technology, societal changes, with urbanization and a wide variety of other factors."

The Mad Scientist Laboratory







Baseline



Deep-dive



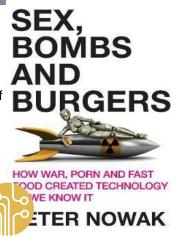
Podcast

Sex, Bombs and Burgers

Author. Peter Nowak

Synopsis. Sex, Bombs And Burgers: How War, Porn And Fast Food Created Technology As We Know It is an accessible history of technology based on fascinating research into the histories of all three industries. It is also a chronicle of popular culture, revealing how our everyday lives have been shaped by war, porn and fast food.

Relevance. This strongly researched and enjoyable book is filled with intriguing facts. It is an impressive contribution to the study of how technologies derived from war, porn and fast food have shaped the world as we know it.

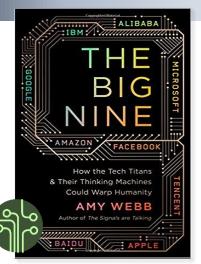


The Big Nine

Author. Amy Webb

Synopsis. The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity is a call-to-arms about the broken nature of AI, and the powerful corporations that are turning the human-machine relationship on its head. It reveals the pervasive, invisible ways in which the foundations of AI are broken.

Relevance. This accessible book argues that the everyday people whose data powers AI, aren't actually in control of anything. We contribute to a system we have no input into, one largely free from regulation or oversight.

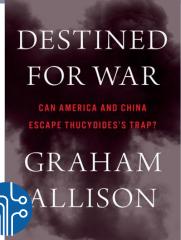


Destined for War

Author. Graham Allison

Synopsis. Destined for War: Can America and China Escape Thucydides's Trap explains why Thucydides's Trap - the friction created when a rising power challenges an established power - is the best lens for understanding cotemporary US-China relations. It also reveals how clashing powers have kept the peace in the past, and what painful steps the US and China must take to avoid disaster today.

Relevance. This book is essential reading both for its content and impact, methodically dismantling the idea that China is a 'responsible stakeholder' in today's US-led international order.



"... superior technology gives an army an advantage over its enemies, at least temporarily and especially psychologically... which is why the military is both a big creator of technology and a long-time early adopter."

Sex, Bombs and Burgers







Baseline



Deep-dive



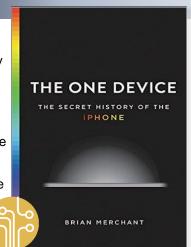
Podcast

The One Device

Author. Brian Merchant

Synopsis. The One Device: The Secret History of the iPhone is the fascinating, untold story of scientific, technological, and business breakthroughs - global in scope, sometimes centuries in the making, and coming from vastly different disciplines - that enabled Apple to create the most profitable product in history.

Relevance. This fascinating book is for anyone seeking to innovate, it reveals the story of the iPhone, from its components, manufacturing processes, key technological drivers, design history, marketing strategy, and human costs.



You Look Like a Thing and I Love You

Author. Janelle Shane

Synopsis. You Look Like a Thing and I Love You: How Artificial Intelligence Works and Why It's Making the World a Weirder Place is an irreverent study seeking to better understand AI technologies. It provides the answers to a broad range of questions showing how AI programs learn, fail, and adapt, and how they reflect the best and worst of humanity.

Relevance. This book is a great primer for anyone curious about AI. Although not a technical book, it clearly explains the essential topics and is a good title for anyone who thinks that AI will solve all of our problems.

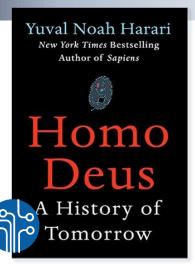


Homo Deus

Author. Yuval Noah Harari

Synopsis. Homo Deus: A Brief History of Tomorrow examines what might happen to the world when old myths are coupled with new godlike technologies, such as AI and genetic engineering. That fact has the potential to change what it means to be human.

Relevance. This fascinating book looks to the future, it explores how global power might shift, as the principal force of evolution - natural selection - is replaced by intelligent design, gives us a glimpse of the dreams and nightmares that will shape the 21st century.



"Clothes - a
Paleolithic thing?
Glasses Medieval? And
now a phone?
The list is tiny. In
order to make
that list, it has to
be almost
universally
desirable."

The One Device







Baseline



Deep-dive



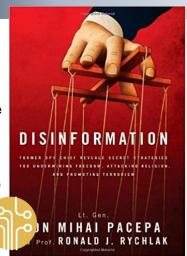
Podcast

Disinformation

Author. Ion Mihai Pacepa

Synopsis. Disinformation, written by the man credited by the CIA as the only person in the Western world to single-handedly demolish an entire enemy espionage service, takes aim at the exotic, widely misunderstood but still astonishingly influential, realm of the Russianborn "science" of disinformation.

Relevance. This authoritative book attempts to make the chaos of the modern world finally understandable, and exposes some of the most consequential yet largely unknown disinformation campaigns of our lifetime.



Information Operations

Author. RAND Corporation

Synopsis. RAND Information Operations reviews information operations and warfare, and includes discussions on the collection of tactical information about an adversary as well as the dissemination of propaganda in pursuit of a competitive advantage over an opponent.

Relevance. This website brings together solutions to public policy challenges. It seeks to enable military leaders and policymakers to develop strategies and policy frameworks to address the challenges of contemporary military information operations.





Future Politics

Author. Jamie Susskind

Synopsis. Future Politics: Living Together in a World Transformed by Tech is a groundbreaking work of political analysis that confronts one of the most important questions of our time: how will digital technology transform politics and society?

Relevance. This formidable and engaging book is an ambitious study of how all aspects of human life are being transformed by technology. It attempts to describe fundamental concepts such as justice, liberty, democracy, equality, and property in the context of the ongoing technology revolution.



"The truth is, the Western media are quite easily manipulated, for they often craft their stories from press releases and tend, on the whole, to be indiscriminate about the nature and reliability of their sources."

Disinformation







Baseline



Deep-dive



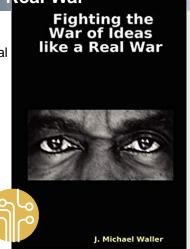
Podcast

Fighting the War of Ideas Like a Real War

Author. J Michael Waller

Synopsis. Fighting the War of Ideas Like a Real War Is an innovative re-examination of how the US and its allies should fight the battle of ideas. It focuses on message strategies that the US should pursue for the immediate term to win the war against global extremism.

Relevance. This book is essential reading for the Information Warfare Professional who is seeking to develop a more nuanced understanding of cross cultural communications, and positively shape our narrative amongst allies and adversaries alike.

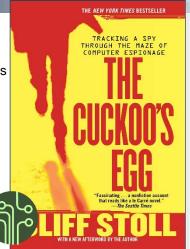


The Cuckoo's Egg

Author. Cliff Stoll

Synopsis. The Cuckoo's Egg: Tracking a Spy Through the Maze of Computer Espionage details how one perceptive citizen began a highly personal quest to expose a hidden network of spies that managed to break into US computer systems and steal sensitive military and security information.

Relevance. This immensely enjoyable read details a dangerous game of deception, broken codes, satellites, and missile bases. A one man sting operation that ultimately trapped an international spy-ring sponsored by the KGB.

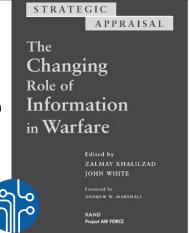


The Changing Role of Information in Warfare

Author. Zalmay Khalilzad and John P. White

Synopsis. Strategic Appraisal: The Changing Role of Information in Warfare draws on the expertise of researchers from across RAND to explore the opportunities and vulnerabilities inherent in the increasing reliance on information technology, and looks at its utility in the contemporary operating environment.

Relevance. This textbook is for a broad audience, discussing how advances in information technology has made information readily available and reviews issues bearing national security and defence planning.



"The human mind is the battlespace of the war of ideas. Words and images shape that battlespace."

Fighting the War of Ideas Like a Real War







Baseline



Deep-dive



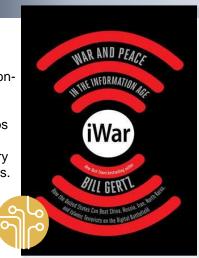
Podcast

iWar

Author. Bill Gertz

Synopsis. iWar: War and Peace in the Information Age explores how covert information-technology warfare is being waged by world powers, rogue states, such as Russia, China, Iran, and North Korea, and even terrorist groups like ISIS. It focuses on cyber and information warfare tools and strategies, and how adversary organisations are leveraging these technologies.

Relevance. This fascinating yet terrifying book describes how technology has completely revolutionised modern warfare, how we have failed to meet this challenge, and what we can and must do to catch up.

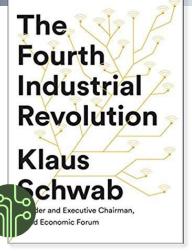


The Fourth Industrial Revolution

Author. Klaus Schwab

Synopsis. The Fourth Industrial Revolution argues that the modern technological revolution is different from anything that has come before. It is characterised by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human.

Relevance. This must read book is argues that, although different in scale, scope and complexity from anything that has come previously, we can shape the technologies that are fundamentally altering how we live and work.

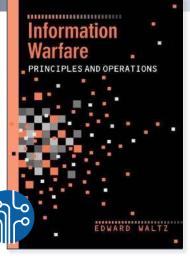


Information Warfare

Author. Edward Waltz

Synopsis. Information Warfare: Principles and Operations provides a systems engineering-level introduction of the means by which information technology is changing conflict and warfare. It provides an overview of threats to commercial, civil and military information systems, and shows how these threats can be identified and treated.

Relevance. This book is for war fighters, as well as the policy makers, commanders, and systems engineers who will implement the transition for strategy and concept to operational system design and implementation.



"Modern Warfare is moving to the Internet and information networks like social media. while employing a broad array of non-military methods political. economic, social, psychological, cyber - to produce effects that in the past were the domain of a military force."

iWar







Baseline



Deep-dive



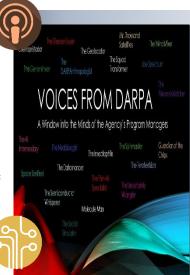
Podcast

Voices From DARPA

Author. DARPA

Synopsis. Voices from DARPA is the official podcast of the Defense Advanced Research Projects Agency (DARPA). It offers a revealing and informative window into the minds of the Agency's program managers for Biological Technologies, Defense Sciences, Information Innovation, Microsystems Technology, Strategic Technology, and Tactical Technology.

Relevance. This exciting new podcast series provides the listener with a comprehensive understanding of what's happening at the forefront of defense tech innovation.

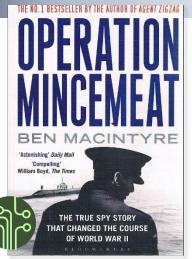


Operation Mincemeat

Author. Ben Macintyre

Synopsis. Operation Mincemeat: How a Dead Man and a Bizarre Plan Fooled the Nazis and Assured an Allied Victory describes how two intelligence officers created an ingenious plan to deceive the Nazis into thinking the Allies were planning to attack Europe by a different way than that what the Nazis had already rightly assumed.

Relevance. This vastly entertaining book reads like an international thriller, and describes how Operation Mincemeat linked improbable feats into an adventure that saved thousands and enabled the conquest of Sicily.

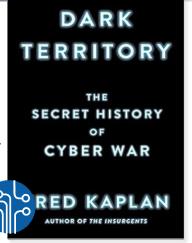


Dark Territory

Author. Fred Kaplan

Synopsis. Dark Territory: The Secret History of Cyber War is the never-before-told story of the computer scientists and the NSA, Pentagon, and White House policymakers who invented and employ the wars of the present and future - the cyber wars where every country can be a major power player and every hacker a mass destroyer.

Relevance. This deeply researched and enjoyable book is essential reading for the Information Warfare Professional to gain a better understanding of the most urgent and controversial topic in national defense policy.



"... what might sound like science fiction elsewhere in the world at DARPA was future science."

Voices from DARPA







Baseline



Deep-dive



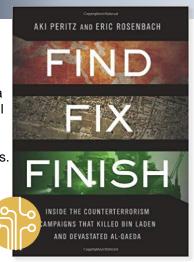
Podcast

Find, Fix, Finish

Author. Aki Peritz and Eric Rosenbach

Synopsis. Find, Fix, Finish: Inside the Counterterrorism Campaigns that Killed Bin Laden and Devastated Al-Qaeda explains how a concept coined by General Grant during the Civil War has been reinvented in the age of satellite technology to manage a globally distributed foe, allowing the US to find, fix, and finish its enemies.

Relevance. This objective book details recent operations and candidly discusses mistakes and lessons learnt. It explores the immense changes in America's counterterrorism strategy affecting the intelligence, defense, and political communities.

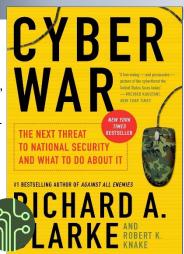


Cyber War

Author. Richard A. Clarke and Robert K. Knake

Synopsis. Cyber War: The Next Threat to National Security and What to Do About It offers an insider's view of White House 'Situation Room' operations and carries the reader to the frontlines of America's cyber defenses. Written by a former presidential advisor and counter-terrorism expert, Cyber War exposes a virulent threat to US national security.

Relevance. This explosive book does an excellent job of placing cyber warfare in the context of cyber attacks and espionage; while providing specific, realistic and comprehensive Information Warfare policy recommendations.

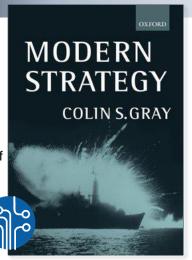


Modern Strategy

Author. Colin S. Grey

Synopsis. Modern Strategy explains the permanent nature, but ever changing character, of strategy in light of the whole strategic experience of the twentieth century. The book is a major contribution to the general theory of strategy. It makes sense of the strategic history of the last century, and provides understanding of what that history implies for the century to come.

Relevance. This book is a wide-ranging account of modern military strategy since the end of the Cold War and is essential reading for all Information Warfare Professionals.



"... the ability to act swiftly on this [actionable intelligence] is also rapidly evolving. The need for focused military action... has led to the rising importance of task forces that combine a wide range of military and intelligence resources."

Find, Fix and Finish







Baseline



Deep-dive



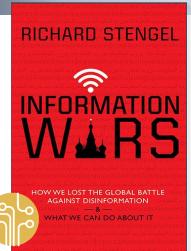
Podcast

Information Wars

Author, Richard Stengel

Synopsis. Information Wars: How We Lost the Global Battle Against Disinformation and What We Can Do About It highlights how the rise of social media has made disinformation pervasive in the current era, how governments are increasingly using disinformation to create their own false narratives, and how democracies are proving not to be very good at fighting it.

Relevance. This eye-opening book shows how bad actors are leveraging technology to undermine trust, and discusses what must be done to ensure decision advantage.

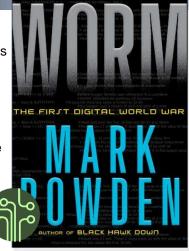


Worm

Author. Mark Bowden

Synopsis. Worm: The First Digital World War Is the story of the battle between those determined to exploit the internet and those committed to protect it. It describes the group of hackers, researches, millionaire Internet entrepreneurs, and computer security experts who united to defend the Internet from the Conficker worm: the story of the first digital world war.

Relevance. This book explains in simple terms how telecommunications companies, banking systems and critical government networks are vulnerable to cyber attack.

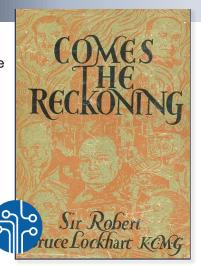


Comes the Reckoning

Author. Sir Robert Hamilton Bruce Lockhart

Synopsis. Comes the Reckoning is a complete review of propaganda's role during World War II as seen by the then wartime Deputy Under-Secretary of State for England. The volume provides fascinating details into Britain's approaches, successes and failures in psychological warfare.

Relevance. An exceptional historical review of the role of psychological operations for "maintaining the fighting spirit of occupied countries" and undermining the will of the enemy during unrestricted warfare.



"... the real problem was that we were in the middle of a global information war that was going on every minute of the day all around the world and we were losing it."

Information Wars







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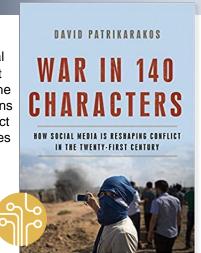
Podcast

War in 140 Characters

Author. David Patrikarakos

Synopsis. War in 140 Characters: How Social Media Is Reshaping Conflict in the Twenty-First Century explores how social media is shifting the power balance from governments and institutions towards individuals and networks and the impact this is having on modern conflicts. It underscores the centrality of the dominant narrative to contemporary warfare.

Relevance. This easily accessible book is an engaging study of how social media is transforming the modern battlefield, and how future wars will be fought and lost.

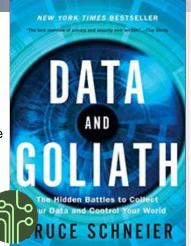


Data and Goliath

Author. Bruce Schneider

Synopsis. Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World offers another path to state-sponsored mass surveillance, one that values both security and privacy. It shows exactly what we can do to reform government surveillance programs, shake up surveillance-based business models, and protect our individual privacy.

Relevance. A compelling read that describes the means, methods and motivations of corporations, governments and cyber criminals in accessing and analysing mass-data.



The Secret War

Author. Max Hastings

Synopsis. The Secret War: Spies, Codes and Guerrillas 1939-1945 examines the war waged by British, American, German, Russian and Japanese intelligence-gathering personnel. Moving chronologically through the conflict, it charts the successes and failures of allied and axis intelligence, espionage and counterespionage operations.

Relevance. This entertaining read demonstrates how the evolution of intelligence practices and electronic communications dramatically increased the criticality of information operations.



"We live in a world where facts are less important than narratives, where people emote rather than debate, and where algorithms shape our view of the world... even in war."

War in 140 Characters

SUPPLEMENTARY SOURCES

Tech Leaders & Influencers

- 1. Andrew Ng <a>@AndrewYNg. Co-founder of <a>Coursera on machine learning and AI.
- 2. The NextWeb <u>@TheNextWeb</u>. Large following discusses next generation tech.
- 3. Natalie Panek @nmpanek. Aerospace Engineer and STEM ThePanekRoom.
- 4. Tech Crunch <u>@TechCrunch</u>. Breaking technology news, analysis and opinions.
- 5. Elon Musk @elonmusk. Informative, entertaining SpaceX, Boring, and Tesla.
- 6. Gigaom @Gigaom. The leading global voice on emerging technologies.
- 7. Sundar Pichai @sundarpichai. CEO of Google and Alphabet on future tech.
- 8. Wired <a>@WIRED. Wired is where tomorrow is realised.
- 9. Kara Swisher <a>@KaraSwisher. Experienced tech journalist on industry news.
- 10. Bored Elon Musk @BoredElonMusk. Amusing, thought provoking tech parody.
- 11. Digital Trends <a>@DigitalTrends. Product reviews and tech industry news.
- 12. Siraj Raval @sirajraval. Data scientist comments about Al news and trends.
- 13. Mashable @mashable. Now the leading media for tech news and trends.
- 14. CIA @CIA. The CIA is America's first line of defense.
- 15. MIT Tech Review @techreview. MIT reviews the latest technologies.

Websites & Blogs

- 1. Information Warfare Division
- 2. Wired
- 3. The Cove Australian Army
- 4. TechRadar
- 5. Australian Strategic Policy Institute (ASPI)
- 6. Gizmodo
- 7. RAND
- 8. The Next Web
- 9. Grounded Curiosity
- 10. Mashable
- 11. War on the Rocks
- 12. TechCrunch
- 13. The Royal United Services Institute (RUSI)
- 14. The Future of Cyber Security
- 15. MIT Technology Review

"... there's no more important relationship than that between the Information Warfare Division and industry. Industry are the thinkers, the innovators, the builders, the pioneers."

MAJGEN
Marcus
Thompson,
Head
Information
Warfare

SUPPLEMENTARY SOURCES

Publications & Directives

- 1. Australian Army Reading List 2019
- 2. Australian Army Accelerated Warfare: Futures Statement for an Army in Motion
- 3. <u>Joint Doctrine Note 1-20, Information War: ADF Manoeuvre in the Information Environment</u>
- 4. Joint Doctrine Note 6-18, Joint Command and Control 2021
- 5. Joint Doctrine Note 1-16, Operation Assessment
- 6. ADDP 2.0 Intelligence
- 7. ADDP 3.1 Joint Fires and Effects
- 8. ADDP 3.13 Information Activities
- 9. ADFP 3.13.1 Information Operations Procedures
- 10. ADDP 3.14 Targeting
- 11. ADDP 3.5, Electromagnetic Spectrum Operations
- 12. ADDP 3.7 Collection Operations
- 13. ADDP 5.0 Joint Planning
- 14. 6th Brigade Capability Handbook 2020
- 15. MDTF Intelligence, Information, Cyberspace, Electronic Warfare, and Space (I2CEWS) Operational and Organizational (O&O) Concept 2018-2025
- 16. <u>USMC Marine Air Ground Task Force (MAGTF) Information Environment Operations Concept of Employment</u>
- 17. US TRADOC 525-3-1, The US Army in Multi-Domain Operations 2028
- 18. <u>US TRADOC 525-92, The Operational Environment and the Changing</u>
 Character of Warfare

Articles & Essays

- 1. A New Model for Strategic Competition, Brigadier Grant Mason
- 2. Grey is the New Black: Covert Action and Implausible Deniability, Rory Cormac and Richard J. Aldrich
- 3. Competition Short of War: How Russia's Hybrid and Grey-Zone Warfare are a Blueprint for China's Global Power Ambitions, Sascha Dominik Bachmann, Andrew Dowse and Håkan Gunneriusson
- Influence Operations and the Human Domain, Thomas M. Scanzillo and Edward M. Lopaciensk
- 5. The Tallinn Manual 2.0: Highlights and Insights, Eric Talbot Jensen
- 6. NATO Defense College Handbook of Russian Information Warfare, Keir Giles

"We've got to be careful about boxing ourselves in... electronic warfare and cyber warfare, signals (communications) and signals intelligence. psychological operations and information operations, we have to work together, and if vou stand alone. frankly, you are just going to become irrelevant."

LTGEN Stephen Fogarty, COMD ARCYBER