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This Is How They Tell Me the World Ends - Nicole Perlroth 2021-02-18
WINNER OF THE FT & McKINSEY BUSINESS BOOK OF THE YEAR AWARD 2021 The instant New York Times bestseller A Financial Times and The Times Book of the Year 'A terrifying exposé' The Times 'Part John le Carré . . . Spellbinding' New Yorker We plug in anything we can to the internet. We can control our entire lives, economy and grid via a remote web control. But over the past decade, as this transformation took place, we never paused to think that we were also creating the world's largest attack surface. And that the same nation that maintains the greatest cyber advantage on earth could also be among its most vulnerable. Filled with spies, hackers, arms dealers and a few unsung heroes, This Is How They Tell Me the World Ends is an astonishing and gripping feat of journalism. Drawing on years of reporting and hundreds of interviews, Nicole Perlroth lifts the curtain on a market in shadow, revealing the urgent threat faced by us all if we cannot bring the global cyber arms race to heel.

Cyberwarfare - Chapple 2014-07-31
Part of the Jones & Bartlett Learning Information Systems Security & Assurance Series Cyberwarfare puts students on the real-world battlefield of cyberspace! Students will learn the history of cyberwarfare, techniques used in both offensive and defensive information warfare, and how cyberwarfare is shaping military doctrine. Written by subject matter experts, this book combines accessible explanations with realistic experiences and case studies that make cyberwar evident and understandable. Key Features: - Incorporates hands-on activities, relevant examples, and realistic exercises to prepare readers for their future careers. - Includes detailed case studies drawn from actual cyberwarfare operations and tactics. - Provides fresh capabilities information drawn from the Snowden NSA leaks

Myths and Realities of Cyber Warfare: Conflict in the Digital Realm - Nicholas Michael Sambaluk 2020-03-01
This illuminating book examines and refines the commonplace "wisdom" about cyber conflict—its effects, character, and implications for national and individual security in the 21st century. "Cyber warfare" evokes different images to different people. This book deals with the technological aspects denoted by "cyber" and also with the information operations connected to social media's role in digital struggle. The author discusses numerous mythologies about cyber warfare, including its presumptively instantaneous speed, that it makes distance and location irrelevant, and that victims of cyber attacks deserve blame for not defending adequately against attacks. The author outlines why several widespread beliefs about cyber weapons need modification and suggests more nuanced and contextualized conclusions about how cyber domain hostility impacts conflict in the modern world. After distinguishing between the nature of warfare and the character of wars, chapters will probe the widespread assumptions about cyber weapons themselves. The second half of the book explores the role of social media and the consequences of the digital realm being a battlespace in 21st-century conflicts. The book also considers how trends in computing and cyber conflict impact security affairs as well as the practicality of people's relationships with institutions and trends, ranging from democracy to the Internet of Things. Provides an overview of the numerous myths and realities associated with all aspects of cyber warfare Explains how the leveraging of social media shapes political discourse and frays cultural norms Shows how advanced persistent threats engage in espionage against critical infrastructure Reveals how individuals and criminal groups conduct an array of nefarious cyber activities with wide-ranging levels of skill

Journal of Information Warfare - 2003

Redefining Information Warfare Boundaries for an Army in a Wireless World - Isaac Porche 2013
"In the U.S. Army as elsewhere, transmission of digitized packets on Internet-protocol and space-based networks is rapidly supplanting the use of old technology (e.g., dedicated analog channels) when it comes to information sharing and media broadcasting. As the Army moves forward with these changes, it will be important to identify the implications and potential boundaries of cyberspace operations. An examination of network operations, information operations, and the more focused areas of electronic warfare, signals intelligence, electromagnetic spectrum operations, public affairs, and psychological operations in the U.S. military found significant overlap that could inform the development of future Army doctrine in these areas. In clarifying the prevailing boundaries between these areas of interest, it is possible to predict the progression of these boundaries in the near future. The investigation also entailed developing new definitions that better capture this overlap for such concepts as information warfare. This is important because the Army is now studying ways to apply its cyber power and is reconsidering doctrinally defined areas that are integral to operations in cyberspace. It will also be critical for the Army to approach information operations with a plan to organize and, if possible, consolidate its operations in two realms: the psychological, which is focused on message content and people, and the technological, which is focused on content delivery and machines."--Page 4 of cover.

Deterring Cyber Warfare - Brian M. Mazanec 2014-12-05
While the deterrence of cyber attacks is one of the most important issues facing the United States and other nations, the application of deterrence theory to the cyber realm is problematic. This study introduces cyber warfare and reviews the challenges associated with deterring cyber attacks, offering key recommendations to aid the deterrence of major cyber attacks.

Information Security Illuminated - Michael G. Solomon 2005
A comprehensive textbook that introduces students to current information security practices and prepares them for various related certifications.

Cyber Warfare - Johann-Christoph Woltag 2014
Originally presented as author's thesis (doctoral)--University of Hamburg, 2013.

Cyberwarfare: Information Operations in a Connected World - Mike Chapple 2021-10-11
Cyberwarfare: Information Operations in a Connected World puts students on the real-world battlefield of cyberspace! It reviews the role that cyberwarfare plays in modern military operations–operations in which it has become almost impossible to separate cyberwarfare from traditional warfare.

Complex Battlespaces - LTC Winston S. Williams 2018-11-23
The conduct of warfare is constantly shaped by new forces that create complexities in the battlespace for military operations. As the nature of how and where wars are fought changes, new challenges to the application of the extant body of international law that regulates armed conflicts arise. This inaugural volume of the Lieber Studies Series seeks to address several issues in the confluence of law and armed conflict, with the primary goal of providing the reader with both academic and practitioner perspectives. Featuring chapters from world class scholars, policymakers and other government officials; military and civilian legal practitioners; and other thought leaders, together they examine the role of the law of armed conflict in current and future armed conflicts around

the world. Complex Battlespaces also explores several examples of battlespace dynamics through four "lenses of complexity": complexity in legal regimes, governance, technology, and the urbanization of the battlefield.

The Basics of Cyber Warfare - Steve Winterfeld 2012-12-28
The Basics of Cyber Warfare provides readers with fundamental knowledge of cyber war in both theoretical and practical aspects. This book explores the principles of cyber warfare, including military and cyber doctrine, social engineering, and offensive and defensive tools, tactics and procedures, including computer network exploitation (CNE), attack (CNA) and defense (CND). Readers learn the basics of how to defend against espionage, hacking, insider threats, state-sponsored attacks, and non-state actors (such as organized criminals and terrorists). Finally, the book looks ahead to emerging aspects of cyber security technology and trends, including cloud computing, mobile devices, biometrics and nanotechnology. The Basics of Cyber Warfare gives readers a concise overview of these threats and outlines the ethics, laws and consequences of cyber warfare. It is a valuable resource for policy makers, CEOs and CIOs, penetration testers, security administrators, and students and instructors in information security. Provides a sound understanding of the tools and tactics used in cyber warfare. Describes both offensive and defensive tactics from an insider's point of view. Presents doctrine and hands-on techniques to understand as cyber warfare evolves with technology.

Access Control and Identity Management - Mike Chapple 2020-10-01
Revised and updated with the latest data from this fast paced field, Access Control, Authentication, and Public Key Infrastructure defines the components of access control, provides a business framework for implementation, and discusses legal requirements that impact access control programs.

Information Operations - Joint Forces Staff College (U.S.) 2011-09
The modern means of communication have turned the world into an information fishbowl and, in terms of foreign policy and national security in post-Cold War power politics, helped transform international power politics. Information operations (IO), in which time zones are as important as national boundaries, is the use of modern technology to deliver critical information and influential content in an effort to shape perceptions, manage opinions, and control behavior. Contemporary IO differs from traditional psychological operations practiced by nation-states, because the availability of low-cost high technology permits nongovernmental organizations and rogue elements, such as terrorist groups, to deliver influential content of their own as well as facilitates damaging cyber-attacks ("hactivism") on computer networks and infrastructure. As current vice president Dick Cheney once said, such technology has turned third-class powers into first-class threats. Conceived as a textbook by instructors at the Joint Command, Control, and Information Warfare School of the U.S. Joint Forces Staff College and involving IO experts from several countries, this book fills an important gap in the literature by analyzing under one cover the military, technological, and psychological aspects of information operations. The general reader will appreciate the examples taken from recent history that reflect the impact of IO on U.S. foreign policy, military operations, and government organization.

Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations - 2017-02-02
Tallinn Manual 2.0 expands on the highly influential first edition by extending its coverage of the international law governing cyber operations to peacetime legal regimes. The product of a three-year follow-on project by a new group of twenty renowned international law experts, it addresses such topics as sovereignty, state responsibility, human rights, and the law of air, space, and the sea. Tallinn Manual 2.0 identifies 154 'black letter' rules governing cyber operations and provides extensive commentary on each rule. Although Tallinn Manual 2.0 represents the views of the experts in their personal capacity, the project benefitted from the unofficial input of many states and over fifty peer reviewers.

Inside Cyber Warfare - Jeffrey Carr 2009-12-15
What people are saying about Inside Cyber Warfare "The necessary handbook for the 21st century." --Lewis Shepherd, Chief Tech Officer and Senior Fellow, Microsoft Institute for Advanced Technology in Governments "A must-read for policy makers and leaders who need to understand the big-picture landscape of cyber war." --Jim Stogdill, CTO, Mission Services Accenture You may have heard about "cyber warfare" in the news, but do you really know what it is? This book provides fascinating and disturbing details on how nations, groups, and individuals throughout the world are using the Internet as an attack platform to gain military, political, and economic advantages over their adversaries. You'll learn how sophisticated hackers working on behalf of states or organized crime patiently play a high-stakes game that could target anyone, regardless of affiliation or nationality. Inside Cyber Warfare goes beyond the headlines of attention-grabbing DDoS attacks and takes a deep look inside multiple cyber-conflicts that occurred from 2002 through summer 2009. Learn how cyber attacks are waged in open conflicts, including recent hostilities between Russia and Georgia, and Israel and Palestine Discover why Twitter, Facebook, LiveJournal, Vkontakte, and other sites on the social web are mined by the intelligence services of many nations Read about China's commitment to penetrate the networks of its technologically superior adversaries as a matter of national survival Find out why many attacks originate from servers in the United States, and who's responsible Learn how hackers are "weaponizing" malware to attack vulnerabilities at the application level

Introduction to 80 X 86 Assembly Language and Computer Architecture - Richard C. Detmer 2006-07-30

Introduction to Cyber-Warfare - Paulo Shakarian 2013-05-16
Introduction to Cyber-Warfare: A Multidisciplinary Approach, written by experts on the front lines, gives you an insider's look into the world of cyber-warfare through the use of recent case studies. The book examines the issues related to cyber warfare not only from a computer science perspective but from military, sociological, and scientific perspectives as well. You'll learn how cyber-warfare has been performed in the past as well as why various actors rely on this new means of warfare and what steps can be taken to prevent it. Provides a multi-disciplinary approach to cyber-warfare, analyzing the information technology, military, policy, social, and scientific issues that are in play Presents detailed case studies of cyber-attack including inter-state cyber-conflict (Russia-Estonia), cyber-attack as an element of an information operations strategy (Israel-Hezbollah,) and cyber-attack as a tool against dissidents within a state (Russia, Iran) Explores cyber-attack conducted by large, powerful, non-state hacking organizations such as Anonymous and LulzSec Covers cyber-attacks directed against infrastructure, such as water treatment plants and power-grids, with a detailed account of Stuxent

The Art of Cyberwar - Thomas P. Sammel 2019-08-31
The information superhighway promised to connect the world's people. After thirty years we find governments, criminals, hacktivists, and amateurs using this man-made domain to attack other governments, defense contractors, commercial businesses, national infrastructures and social media. Public and private organizations spend billions of dollars struggling to defend themselves. Yet attacks continue.A lack of understanding the complexities of cyberspace and the nature of the conflict has led to a field based on myth, metaphor and wishful thinking. National leaders, corporate board members and executives, information security professionals, and average citizens should be concerned about the threats we face in cyberspace. Using clear English, "The Art of Cyberwar" describes the digital battlefield and the principles for conducting defensive and destructive operations. It provides the reader insights into the complexities and principles for maneuvering in the digital domain. This easy-to-understand book establishes a dialog with the reader, laying out the complexities of cyberspace in a clear and understandable way. It then establishes the eight principles that make up the conflict in cyberspace. "The Art of Cyberwar" is essential for anyone concerned about the threats in cyberspace and the Internet. Lieutenant Colonel Mike VanPutte, PhD (US Army Retired) and Major Tom Sammel (US Marine Corps Retired) have more than forty years of experience leading kinetic and cyber operations. They worked side-by-side with intelligence, law enforcement and commercial cyber operators. Their careers turned two decades ago from kinetic warfare to the threats from cyberspace. They have been at the forefront of responding to and repelling the most sophisticated attacks from foreign nations, cybercriminals, and other cyber-threats. They are preeminent experts in cyberwarfare.

Cyber War - Richard A. Clarke 2010-04-20
An essential, eye-opening book about cyberterrorism, cyber war, and the next great threat to our national security. “Cyber War may be the most important book about national security policy in the last several years.” –Slate Former presidential advisor and counter-terrorism expert Richard A. Clarke sounds a timely and chilling warning about America’s vulnerability in a terrifying new international conflict. Cyber War is a powerful book about technology, government, and military strategy;

about criminals, spies, soldiers, and hackers. It explains clearly and convincingly what cyber war is, and how vulnerable we are as a nation and as individuals to the vast and looming web of cyber criminals. Every concerned American should read this startling and explosive book that offers an insider’s view of White House ‘Situation Room’ operations and carries the reader to the frontlines of our cyber defense. Cyber War exposes a virulent threat to our nation’s security.

China and Cybersecurity - Jon R. Lindsay 2015

"Examines cyberspace threats and policies from the vantage points of China and the U.S"--

Click Here to Kill Everybody: Security and Survival in a Hyper-connected World - Bruce Schneier 2018-09-04

A world of "smart" devices means the Internet can kill people. We need to act. Now. Everything is a computer. Ovens are computers that make things hot; refrigerators are computers that keep things cold. These computers—from home thermostats to chemical plants—are all online. The Internet, once a virtual abstraction, can now sense and touch the physical world. As we open our lives to this future, often called the Internet of Things, we are beginning to see its enormous potential in ideas like driverless cars, smart cities, and personal agents equipped with their own behavioral algorithms. But every knife cuts two ways. All computers can be hacked. And Internet-connected computers are the most vulnerable. Forget data theft: cutting-edge digital attackers can now crash your car, your pacemaker, and the nation’s power grid. In Click Here to Kill Everybody, renowned expert and best-selling author Bruce Schneier examines the hidden risks of this new reality. After exploring the full implications of a world populated by hyperconnected devices, Schneier reveals the hidden web of technical, political, and market forces that underpin the pervasive insecurities of today. He then offers common-sense choices for companies, governments, and individuals that can allow us to enjoy the benefits of this omnipotent age without falling prey to its vulnerabilities. From principles for a more resilient Internet of Things, to a recipe for sane government regulation and oversight, to a better way to understand a truly new environment, Schneier’s vision is required reading for anyone invested in human flourishing.

Cyber Warfare - Sanjeev Relia 2016-02-01

Each era brings with it new techniques and methods of waging a war. While military scholars and experts have mastered land, sea, air and space warfare, time has come that they studied the art of cyberwar too. Our neighbours have acquired the capabilities to undertake this new form of asymmetric form of warfare. India too therefore needs to acquire the capabilities to counter their threat. Cyber space seems to have invaded every aspect of our life. More and more systems whether public or private are getting automated and networked. This high dependence of our critical infrastructure on Information and Communication Technology exposes it to the vulnerabilities of cyberspace. Enemy now can target such infrastructure through the cyberspace and degrade/ destroy them. This implies that the critical information infrastructure of the country and military networks today are both equally vulnerable to enemy’s cyberattacks. India therefore must protect its critical information infrastructure as she would protect the military infrastructure in the battlefield. Public – Private Partnership model is the only model which would succeed in doing so. While the Government needs to lay down the policies and frame the right laws, private sector needs to invest into cyber security. Organisations at national level and at the level of armed forces need to be raised which can protect our assets and are also capable of undertaking offensive cyber operations. This book is an attempt to understand various nuances of cyber warfare and how it affects our national security. Based on the cyber threat environment, the books recommends a framework of cyber doctrine and cyber strategies as well as organisational structure of various organisations which a nation needs to invest in.

@WAR - Shane Harris 2014

An investigation into how the Pentagon, NSA, and other government agencies are uniting with corporations to fight in cyberspace, the next great theater of war.

Strategic Information Warfare - Roger C. Molander 1996-02-28

Future U.S. national security strategy is likely to be profoundly affected by the ongoing, rapid evolution of cyberspace--the global information infrastructure--and in particular by the growing dependence of the U.S. military and other national institutions and infrastructures on potentially vulnerable elements of the U.S. national information infrastructure. To examine these effects, the authors conducted a series of exercises employing a methodology known as the Day After ... in which participants are presented with an information warfare crisis scenario and asked to advise the president on possible responses. Participants included senior national security community members and representatives from security-related telecommunications and information-systems industries. The report synthesizes the exercise results and presents the instructions from the exercise materials in their entirety.

Information Warfare in the Age of Cyber Conflict - Christopher Whyte 2020-07-28

This book examines the shape, sources and dangers of information warfare (IW) as it pertains to military, diplomatic and civilian stakeholders. Cyber warfare and information warfare are different beasts. Both concern information, but where the former does so exclusively in its digitized and operationalized form, the latter does so in a much broader sense: with IW, information itself is the weapon. The present work aims to help scholars, analysts and policymakers understand IW within the context of cyber conflict. Specifically, the chapters in the volume address the shape of influence campaigns waged across digital infrastructure and in the psychology of democratic populations in recent years by belligerent state actors, from the Russian Federation to the Islamic Republic of Iran. In marshalling evidence on the shape and evolution of IW as a broad-scoped phenomenon aimed at societies writ large, the authors in this book present timely empirical investigations into the global landscape of influence operations, legal and strategic analyses of their role in international politics, and insightful examinations of the potential for democratic process to overcome pervasive foreign manipulation. This book will be of much interest to students of cybersecurity, national security, strategic studies, defence studies and International Relations in general.

Cyber Law and Ethics - Mark Grabowski 2021-07-13

A primer on legal issues relating to cyberspace, this textbook introduces business, policy and ethical considerations raised by our use of information technology. With a focus on the most significant issues impacting internet users and businesses in the United States of America, the book provides coverage of key topics such as social media, online privacy, artificial intelligence and cybercrime as well as emerging themes such as doxing, ransomware, revenge porn, data-mining, e-sports and fake news. The authors, experienced in journalism, technology and legal practice, provide readers with expert insights into the nuts and bolts of cyber law. Cyber Law and Ethics: Regulation of the Connected World provides a practical presentation of legal principles, and is essential reading for non-specialist students dealing with the intersection of the internet and the law.

The Grey Line - Andrew Brown 2011

The Grey Line: Modern Corporate Espionage and Counterintelligence offers a unique look beyond the veil of absolute secrecy which has surrounded the world of private intelligence since its inception. Corporate espionage is an inescapable reality of the modern global business world. Privately run intelligence operations are increasingly being targeted against individual's personal information as well as companies of all sizes. The Grey Line is the comprehensive examination of how modern day private sector spies operate, who they target, how they penetrate secure systems and subvert vulnerable employees. The book provides invaluable resources to use in deterring and defeating corporate spies. Never before has the subject of private intelligence been covered in such detail.

International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked world -

Tallinn Manual on the International Law Applicable to Cyber Warfare - Michael N. Schmitt 2013-03-07

The result of a three-year project, this manual addresses the entire spectrum of international legal issues raised by cyber warfare.

Secrets and Lies - Bruce Schneier 2015-03-23

This anniversary edition which has stood the test of time as a runaway best-seller provides a practical, straight-forward guide to achieving security throughout computer networks. No theory, no math, no fiction of what should be working but isn't, just the facts. Known as the master of cryptography, Schneier uses his extensive field experience with his own clients to dispel the myths that often mislead IT managers as they try to build secure systems. A much-touted section: Schneier's tutorial on just what cryptography (a subset of computer security) can and cannot do for them, has received far-reaching praise from both the technical and business community. Praise for Secrets and Lies "This is a business issue, not a technical one, and executives can no longer leave such decisions to techies. That's why Secrets and Lies belongs in every manager's library."-Business Week "Startlingly lively....a jewel box of little surprises you can actually use."-Fortune "Secrets is a comprehensive, well-written work on a topic few business leaders can afford to neglect."-Business 2.0 "Instead of talking algorithms to geeky programmers, [Schneier] offers a primer in practical computer security aimed at those shopping, communicating or doing business online-almost everyone, in other words."-The Economist "Schneier...peppers the book with lively anecdotes and aphorisms, making it unusually accessible."-Los Angeles Times With a new and compelling Introduction by the author, this premium edition will become a keepsake for security enthusiasts of every stripe.

Threatcasting - Brian David Johnson 2021-10-04

Impending technological advances will widen an adversary’s attack plane over the next decade. Visualizing what the future will hold, and what new threat vectors could emerge, is a task that traditional planning mechanisms struggle to accomplish given the wide range of potential issues. Understanding and preparing for the future operating environment is the basis of an analytical method known as Threatcasting. It is a method that gives researchers a structured way to envision and plan for risks ten years in the future. Threatcasting uses input from social science, technical research, cultural history, economics, trends, expert interviews, and even a little science fiction to recognize future threats and design potential futures. During this human-centric process, participants brainstorm what actions can be taken to identify, track, disrupt, mitigate, and recover from the possible threats. Specifically, groups explore how to transform the future they desire into reality while avoiding an undesired future. The Threatcasting method also exposes what events could happen that indicate the progression toward an increasingly possible threat landscape. This book begins with an overview of the Threatcasting method with examples and case studies to enhance the academic foundation. Along with end-of-chapter exercises to enhance the reader’s understanding of the concepts, there is also a full project where the reader can conduct a mock Threatcasting on the topic of “the next biological public health crisis.” The second half of the book is designed as a practitioner’s handbook. It has three separate chapters (based on the general size of the Threatcasting group) that walk the reader through how to apply the knowledge from Part I to conduct an actual Threatcasting activity. This book will be useful for a wide audience (from student to practitioner) and will hopefully promote new dialogues across communities and novel developments in the area.

Cyberwarfare: Information Operations in a Connected World - Mike Chapple 2021-10-01

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Information Warfare in the Age of Cyber Conflict - Christopher Whyte 2020

This book examines the shape, sources and dangers of information warfare (IW) as it pertains to military, diplomatic and civilian stakeholders. Cyber warfare and information warfare are different beasts. Both concern information, but where the former does so exclusively in its digitized and operationalized form, the latter does so in a much broader sense: with IW, information itself is the weapon. The present work aims to help scholars, analysts, and policymakers understand information warfare within the context of cyber conflict. Specifically, the chapters in the volume address the shape of influence campaigns waged across digital infrastructure and in the psychology of democratic populations in recent years by belligerent state actors, from the Russian Federation to the Islamic Republic of Iran. In marshalling evidence on the shape and evolution of information warfare as a broad-scoped phenomenon aimed at societies writ large, the authors in this book present timely empirical investigations into the global landscape of influence operations, legal and strategic analyses of their role in international politics, and insightful examinations of the potential for democratic process to overcome pervasive foreign manipulation. This book will be of much interest to students of cyber-security, national security, strategic studies, defence studies and International Relations in general.

Cyber Warfare - Jason Andress 2011-07-13

Cyber Warfare Techniques, Tactics and Tools for Security Practitioners provides a comprehensive look at how and why digital warfare is waged. This book explores the participants, battlefields, and the tools and techniques used during today's digital conflicts. The concepts discussed will give students of information security a better idea of how cyber conflicts are carried out now, how they will change in the future, and how to detect and defend against espionage, hacktivism, insider threats and non-state actors such as organized criminals and terrorists. Every one of our systems is under attack from multiple vectors - our defenses must be ready all the time and our alert systems must detect the threats every time. This book provides concrete examples and real-world guidance on how to identify and defend a network against malicious attacks. It considers relevant technical and factual information from an insider's point of view, as well as the ethics, laws and consequences of cyber war and how computer criminal law may change as a result. Starting with a definition of cyber warfare, the book’s 15 chapters discuss the following topics: the cyberspace battlefield; cyber doctrine; cyber warriors; logical, physical, and psychological weapons; computer network exploitation; computer network attack and defense; non-state actors in computer network operations; legal system impacts; ethics in cyber warfare; cyberspace challenges; and the future of cyber war. This book is a valuable resource to those involved in cyber warfare activities, including policymakers, penetration testers, security professionals, network and systems administrators, and college instructors. The information provided on cyber tactics and attacks can also be used to assist in developing improved and more efficient procedures and technical defenses. Managers will find the text useful in improving the overall risk management strategies for their organizations. Provides concrete examples and real-world guidance on how to identify and defend your network against malicious attacks Dives deeply into relevant technical and factual information from an insider's point of view Details the ethics, laws and consequences of cyber war and how computer criminal law may change as a result

Cyberwar - Jens David Ohlin 2015

Cyber weapons and cyber warfare have become one of the most dangerous innovations of recent years, and a significant threat to national security. Cyber weapons can imperil economic, political, and military systems by a single act, or by multifaceted orders of effect, with wide-ranging potential consequences. Unlike past forms of warfare circumscribed by centuries of just war tradition and Law of Armed Conflict prohibitions, cyber warfare occupies a particularly ambiguous status in the conventions of the laws of war. Furthermore, cyber attacks put immense pressure on conventional notions of sovereignty, and the moral and legal doctrines that were developed to regulate them. This book, written by an unrivalled set of experts, assists in proactively addressing the ethical and legal issues that surround cyber warfare by considering, first, whether the Laws of Armed Conflict apply to cyberspace just as they do to traditional warfare, and second, the ethical position of cyber warfare against the background of our generally recognized moral traditions in armed conflict. The book explores these moral and legal issues in three categories. First, it addresses foundational questions regarding cyber attacks. What are they and what does it mean to talk about a cyber war? The book presents alternative views concerning whether the laws of war should apply, or whether transnational criminal law or some other peacetime framework is more appropriate, or if there is a tipping point that enables the laws of war to be used. Secondly, it examines the key principles of jus in bello to determine how they might be applied to cyber-conflicts, in particular those of proportionality and necessity. It also investigates the distinction between civilian and combatant in this context, and studies the level of causation necessary to elicit a response, looking at the notion of a 'proximate cause'. Finally, it analyzes the specific operational realities implicated by particular regulatory regimes. This book is unmissable reading for anyone interested in the impact of cyber warfare on international law and the laws of war.

CISSP: Certified Information Systems Security Professional Study Guide - James Michael Stewart 2011-01-13

Totally updated for 2011, here's the ultimate study guide for the CISSP exam Considered the most desired certification for IT security professionals, the Certified Information Systems Security Professional designation is also a career-booster. This comprehensive study guide covers every aspect of the 2011 exam and the latest revision of the CISSP body of knowledge. It offers advice on how to pass each section of the exam and features expanded coverage of biometrics, auditing and accountability, software security testing, and other key topics. Included is a CD with two full-length, 250-question sample exams to test your progress. CISSP certification identifies the ultimate IT security professional; this complete study guide is fully updated to cover all the objectives of the 2011 CISSP exam Provides in-depth knowledge of access control, application development security, business continuity and disaster recovery planning, cryptography, Information Security governance and risk management, operations security, physical (environmental) security, security architecture and design, and telecommunications and network security Also covers legal and regulatory investigation and compliance Includes two practice exams and challenging review questions on the CD Professionals seeking the CISSP certification will boost their chances of success with CISSP: Certified Information Systems Security Professional Study Guide, 5th Edition.

Cyber Warfare: How Conflicts in Cyberspace Are Challenging America and Changing the World - Paul Rosenzweig 2013-01-09

This book provides an up-to-date, accessible guide to the growing threats in cyberspace that affects everyone from private individuals to businesses to national governments.

Dark Territory - Fred Kaplan 2016

Originally published in hardcover in 2016 by Simon & Schuster.

Bitskrieg - John Arquilla 2021-08-16

New technologies are changing how we protect our citizens and wage our wars. Among militaries, everything taken for granted about the ability to maneuver and fight is now undermined by vulnerability to "weapons of mass disruption": cutting-edge computer worms, viruses, and invasive robot networks. At home, billions of household appliances and other "smart" items that form the Internet of Things risk being overtaken, then added to the ranks of massive, malicious "zombie" armies. The age of Bitskrieg is here, bringing vexing threats that range from the business sector to the battlefield. In this new book, world-renowned cyber security expert John Arquilla looks unflinchingly at the challenges posed by cyberwarfare – which he argues have neither been met nor mastered. He offers fresh solutions for protecting against enemies that are often anonymous, unpredictable and capable of projecting force and influence vastly disproportionate to their size, strength or wealth. The changes called for require radical rethinking of military and security affairs, diplomacy, even the routines of our daily lives.

Cybercrime and Cyber Warfare - Igor Bernik 2014-02-19

In order to enable general understanding and to foster the implementation of necessary support measures in organizations, this book describes the fundamental and conceptual aspects of cyberspace abuse. These aspects are logically and reasonably discussed in the fields related to cybercrime and cyberwarfare. The book illustrates differences between the two fields, perpetrators' activities, as well as the methods of investigating and fighting against attacks committed by perpetrators operating in cyberspace. The first chapter focuses on the understanding of cybercrime, i.e. the perpetrators, their motives and their organizations. Tools for implementing attacks are also briefly mentioned, however this book is not technical and does not intend to instruct readers about the technical aspects of cybercrime, but rather focuses on managerial views of cybercrime. Other sections of this chapter deal with the protection against attacks, fear, investigation and the cost of cybercrime. Relevant legislation and legal bodies, which are used in cybercrime, are briefly described at the end of the chapter. The second chapter deals with cyberwarfare and explains the difference between classic cybercrime and operations taking place in the modern inter-connected world. It tackles the following questions: who is committing cyberwarfare; who are the victims and who are the perpetrators? Countries which have an important role in cyberwarfare around the world, and the significant efforts being made to combat cyberwarfare on national and international levels, are mentioned. The common points of cybercrime and cyberwarfare, the methods used to protect against them and the vision of the future of cybercrime and cyberwarfare are briefly described at the end of the book. Contents 1. Cybercrime. 2. Cyberwarfare. About the Authors Igor Bernik is Vice Dean for Academic Affairs and Head of the Information Security Lab at the University of Maribor, Slovenia. He has written and contributed towards over 150 scientific articles and conference papers, and co-authored 4 books. His current research interests concern information/cybersecurity, cybercrime, cyberwarfare and cyberterrorism.