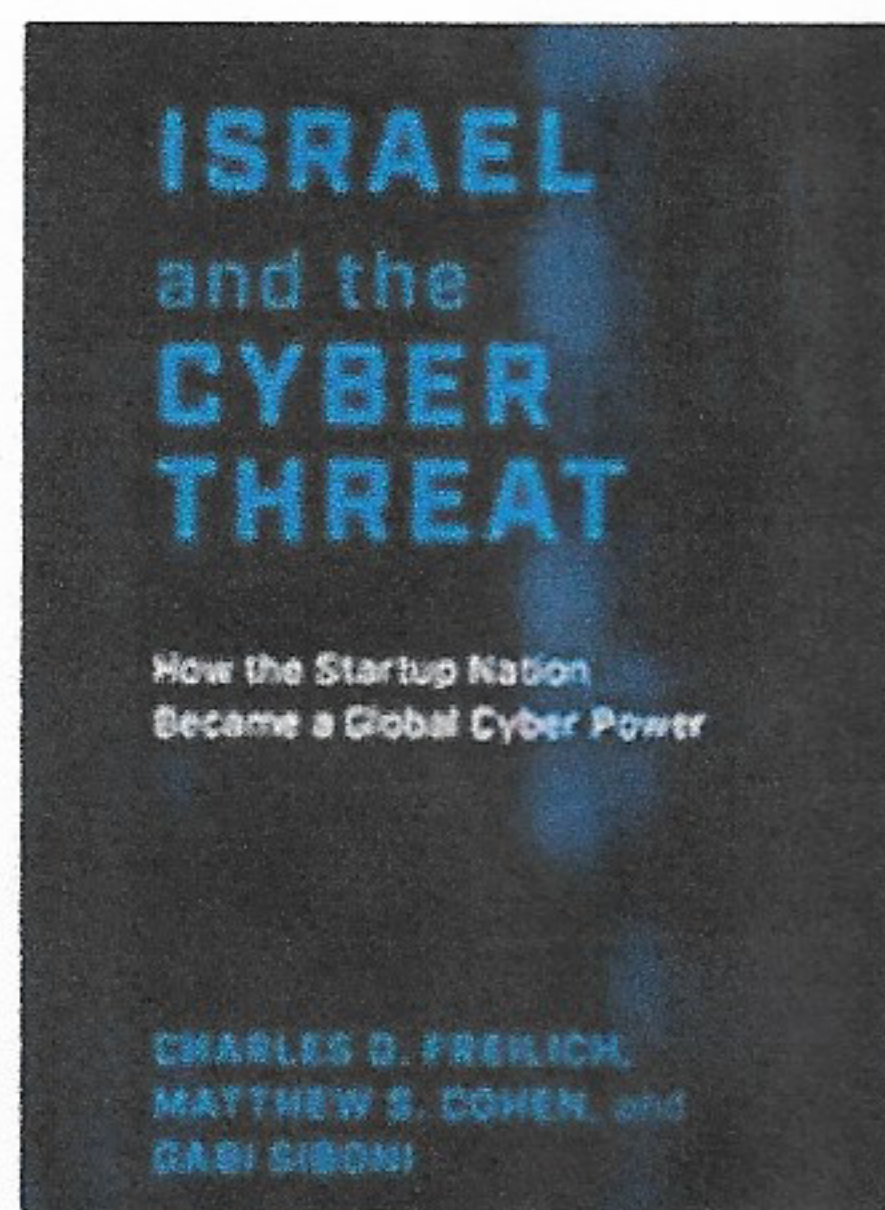# The Cyber Library

Reviewing the Works of Charles Freilich, Matthew Cohen, Gabi Siboni, and also Chris Bernhart

By: William J. (Jay) Carson, ISSA Member Colorado Springs

Freilich, Charles D., Matthew S. Cohen, and Gabi Siboni. Israel and the Cyber Threat: How the Startup Nation Became a Global Superpower. Oxford University Press (2023).

Sound Bite: One of the best books on cybersecurity overall, also criticizes conventional wisdom of Israel's absolute perfection in cybersecurity.

Opinion on Primary Audience: Cyber professionals, especially those working in the international arena will benefit the most from this book. This book is on my top ten list of all-time great cybersecurity books. If you are working on a graduate degree in cybersecurity policy, here is the best book I could recommend.

Yes, two of the authors are past Israeli national security leaders. But they spend little time on political opinions and focus on facts. To me, the best parts are their meticulous work in reviewing cyber threats in general, and they are great storytellers of international cyber-attacks. The latter includes a comprehensive look at Stuxnet, even beyond Kim Zetter's classic, *Countdown to Zero Day.* What really makes the book stand out is the extensive work on major cybersecurity policy concepts, widely applicable.

The Authors (who are careful to state their writings are not necessarily current Israeli official policy, nor the result of access to classified government documents)

Three PhD professors:

- Dr. Charles D. Freilich, Political Science and Government from Columbia, and also a doctorate in International Relations. He is currently an adjunct professor at Columbia and Tel Aviv universities. He was a deputy national security advisor for Israel 2000-2005. Call it 20+ years of experience at high national policy levels. He is an accomplished author.
- Dr. Matthews S. Cohen, Political-International Relations (2018) from Northeastern. He is currently an associate professor at Merrimack College. He has an extensive cyber consulting background.
- Dr. Gabi Siboni, Geographic Information Systems, Ben-Gurion University of the Negev, is currently a researcher at the Misgav Institute for National Security and the Jerusalem Institute for Strategy and Security. He was a member of the Israel Defense Forces (Colonel) and has written or co-written many books on cybersecurity. He has been a CEO, and cyber journal editor.

The Metadata

A 2023 publishing date! The online ordering cost including shipping is about $35. The paperback is about 350 pages, plus notes. There are no copies in my local public library system.

OK, I am not going to lie, a book by three scholars is a tougher than normal read. I took a one-page sample of the text to analyze. Using a Wikipedia article about the Flesch-Kinkaid Readability Test, the readability is graduate school level. The sample had 24% passive voice. This article is under 1% passive voice.

Table of Contents *(abbreviated/modified and annotated in italics inside parenthesis by me)*

- Part I My Home Is No Longer My Castle: the Global Cyber Threat *(A terrific tour of worldwide, multifaceted cyber threats)*
- Part II War By Other Means *(How Israel is cyber-threatened, with emphasis on the Iranian past and expected future attacks)*
- Part III A Napkin That Changed History: Israel's Cyber Response *(What Israel has done in cyber defense, starting from the basics of Israeli culture)*
- Part IV The Way Forward *(After a factual look at achievements and shortfalls, recommendations to improve strategy and policy)*

Bernhart, Chris. *Quantum Computing for Everyone*. MIT Press (2020).

Sound Bite: Get the factual basics of quantum computing, not just the hype.

Opinion on Primary Audience: Anyone who intends to do anything useful with quantum computing, technical or managerial, should know this stuff.

This is a little less thick volume than I usually recommend, but it is full of math, so it will take at least as much of your time as my usual recommendation. It is an important ad! Much of the non-math quantum computing information from news feeds you often see is repetitive and only sort-of right. This book allows you to competently judge the hype.

The Author

Dr. Bernhardt got his PhD at the University of Warwick. Currently an Emeritus Professor of Mathematics at Fairfield University, he has authored an earlier computer science book, and another book is coming out.

The Metadata

A 2019 publishing date! You can get a copy by online ordering for under $15, including shipping. The paperback copy is just under 200 pages. No copies in my local public library.

Again, with a one-page sample of the text to analyze, it is college level, about 24% passive voice.

Table of Contents
(no commentary, as the author did that in the Introduction)

1 Spin	6 Classic Logic, Gates, and Circuits
2 Linear Algebra	7 Quantum Gates and Circuits
3 Spin and Qubits	8 Quantum Algorithms
4 Entanglement	9 Impact of Quantum Computing
5 Bell's Inequality	

Happy Reading! PS: If you have a book you want me to review, please use the email address in my bio to let me know!

Next Month:
> Cunningham, Chase. Cyber Warfare - Truth, Tactics, and Strategies: Strategic Concepts and Truths to Help You and Organization Survive on the Battleground of Cyber Warfare. Packet Publishing, (2020).
> Van Puyvelde, Damien, and Aaron F. Brantly. Cybersecurity: Politics, Governance and Conflict in Cyberspace. Medford, MA: Policy Press, (2019).
> Two extras next month to apply to your cybersecurity careers: Berman, Knight, and Case's Financial Intelligence: A Manager's Guide to Knowing What the Numbers Mean, and Charles Wheelan's Naked Statistics.

Additional sources used in the article:
1. https://www.chrisbernhardt.info/
2. https://en.wikipedia.org/wiki/Flesch%E2%80%93Kincaid_readability_tests
3. LinkedIn profiles for authors listed, where available.

About the Author

William J. (Jay) Carson, ISSA Senior Member, ISSA 2020 Volunteer of the Year, and past ISSA-Colorado Springs Executive Vice President. He is the part-time 'Cyber Librarian' of Semper Sec, LLC. Holding Security+ and CIPP/E certifications, he is a former high school math/science teacher, civil servant, contractor, and retired USAF Lieutenant Colonel. Reach him at Runningjay51@gmail.com.