Cyber Insecurity: Navigating The Perils of the Next Information Age. Edited by Richard M. Harrison and Trey Herr. Lanham, MD: Rowman and Littlefield, 2016.

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Cyber-attacks have become commonplace in the last decade. This reviewer's first familiarity with it began after Richard Clarke, then advisor to President George W. Bush and immediately prior to 9/11 was said to be running around the White House with his hair on fire over the possibilities of attack on the homeland. That metaphor caught the attention of many, and it became an early alert to the importance of cyber security.   The Stuxnet affair followed, revealed by Edward Snowden to a European publication in 2010, attributing its origins to U.S. and Israeli hackers. Since that period, hackers have raised the general public's awareness of hacking, cyber weaponry, and warfare, with domestic attacks on Hollywood entertainment companies, the Office of Personnel Management attack, and others. Cyber, as it is now called, is perhaps the newest defense domain to emerge, alongside space warfare. But it is not only for defense. Even the new American president has acknowledged the US engagement in offensive activities, and it is naïve for national security analysts to presume a one-sided defensive posture on the part of a virginal America. This important book makes clear the many faceted aspects of cyber activities, focused primarily on defensive maneuvers however; a minor flaw in its considerations.

The editors tell us the book emerged from briefing sessions held for Congressional staffers in 2015 in an attempt to educate and bring up to speed these policy shapers regarding the complexities and arcane nature of the cyber "world". The U.S. government has struggled, frankly, with industry counterparts in establishing legal frameworks and protective measures for our domestic infrastructure and data collections. The National Security Agency (NSA) added to its capabilities with the creation of a Cyber Command in 2010, but without it being a completely separate entity apart from NSA. So new is the cyber world that experts disagree on whether the separation of a cyber entity from NSA entirely would weaken or strengthen the nation's overall cyber posture. Our new Secretary of Defense, Gen. James Mattis, is on record for saying in 2017 that no integrated cyber doctrine or strategy presently exists.

Reflecting these developments, the security briefings that foreshadowed this volume address the cyber domain in four major sections, "Securing Data, Devices and Networks," "Combating Cyber Crime," "Governing the Security of

148

the Internet." and "Military Cyber Operations."   This last section comes closest to issues of offensive uses of cyber warfare. This remains of importance equal to that of securing ourselves, for if no consideration of Western (U.S.) use of cyber techniques is given, the book become a patriot's handbook, lacking all objectivity. Clearly national security policy analysts and decision-makers must move beyond seeing cyber tactics solely as threats from outsiders to our collective defense, to seeing issues of the ethical and legal aspects of cyber activity. The cyber domain gives leverage to political warfare, i.e., Russia's intrusions into Georgia and Ukraine, and our national Presidential elections, and we must be ready to counter with comparable competencies.

This book is of seminal importance to newcomers and the more experienced. The editors cast their net widely, clarifying such abstruse obscurities such as zero-day vulnerabilities and threat markets. They add to the growing literature in the field, notably Professor Thomas Rid's *Rise of the Machines*, and (with Daniel Moore), *Cryptopolitik and the Darknet*. In this threatening and lightning-paced field, we can use any and all help in staying abreast.

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