



From Vision to Reality: Israel and the Cyber Revolution

Nir Hassid

Tel Aviv University

Cybermania: How Israel Became a Global Powerhouse in an Arena that Shapes the Future of Mankind

by Eviatar Matania and Amir Rapaport
Kinneret-Zmora-Dvir, 2021
240 pages [in Hebrew]

Eviatar Matania and Amir Rapaport's book is a fascinating and contemporary account that tells the story of the cyber-digital revolution in Israel and the window of opportunity that Israel seized to consolidate its position as a world leader in science and technology and to develop a security concept to defend its national cyber space.

Eviatar Matania and Amir Rapaport's book is a fascinating and contemporary account that tells the story of the cyber-digital revolution in Israel.

Since the 1990s, a period when cyber began to be “naturalized” and enter the public domain, and in parallel with unfolding globalization processes, cyber's contribution to human progress and the potential inherent in it are still far from fully understood or applied. The result: a density of formative events during the relatively short history of cyber-digital development. In this vein, the book focuses on several prominent cases that highlight the dangers of the revolution and its challenge for the military leadership, and how Israeli experience and knowledge have created a prosperous hi-tech industry of global renown.

The authors describe the sequence of objective developments in cyber technology and the formative elements that boosted the implementation of the revolution, including the rise in computing power, communications and information transfer capabilities, and the high level of connectivity that have changed human culture in most areas of life. Matania and Rapaport offer Matania's insider account as the person tasked with establishing the National Cyber Directorate, thus in effect being responsible for the efforts to protect Israel's cyber realm and critical infrastructure.

The book, which comprises seven chapters, begins with a description of then-Prime Minister Benjamin Netanyahu's vision in 2010 of the three-way connection between academia, industry, and government with the defense system, which would make Israel a world cyber leader. A stable economy enables security, and academic knowledge enables technology: these interfacing elements are the joint starting point for the Israeli story in the following chapters. The book continues with a description of the opportunities and threats created in the realm, which have led to the growth of the field of cyber security firms in Israel through companies such as Check Point, Cyota, and CyberArk. These and other companies have contributed to positioning Israel's standing as a global hub of knowledge and innovation (pp. 23-53).

Additional emphases in the book are placed on cyber's security dimension, on intelligence and military issues, and on the potential for strategic damage that can be achieved through cyberattacks. One chapter describes the development of thinking about cyber defense in Israel starting in 2014, with the establishment of the national cybernetic initiative and the shaping of the security concept. It continues with the online Leumi Card company extortion affair in 2014 (pp. 91-113), which illustrates the complexities and the circles of influence that a cyber incident can create on the state level. This example leads to the next chapter, which deals with the decision faced by the Prime Minister regarding the institutional responsibility for cyber defense in the civilian sector in Israel and the expansion of the cyber bureau into a national directorate. The following chapter deals with the Directorate's effort to defend national cyberspace while exploiting the global window of opportunity that created demand for cyber security products and solutions worldwide. Later, the global impacts of significant cyberattacks are described (WannaCry and NotPetya), as well as the consolidation of the National Directorate's activity. To conclude, the authors offer points for consideration about the future challenges of cyber, in the era of artificial intelligence and the wars of the future.

The examples provided by the authors illustrate well the leading global and local cyber-related developments, from which we can learn about the implications for the future. The Leumi Card extortion incident illustrates the consequences of a cyber incident on the state level. This incident (which in retrospect proved to be criminally based) was handled on the state level due to concerns of the bank's collapse, and Matania shares with readers the decision making process that he had to go through during those moments of uncertainty. Matania's disclosure of his deliberations and considerations alongside the sense of the weight of responsibility are fascinating evidence of the decision makers' frame of mind, which

led to the formation of a more cohesive cyber defense doctrine.

Matania's testimony teaches us about a crossroads that is important not only to the future of Israel's security and the nature of the security establishment but also to the maintenance of democratic values, which are challenged by the need for cyber defense.

Matania's testimony on the events prior to and during the meeting regarding the establishment of the National Cyber Directorate teaches us about a crossroads that is important not only to the future of Israel's security and the nature of the security establishment but also to the maintenance of democratic values, which are challenged by the need for cyber defense (pp. 114-128). The Prime Minister's decision in favor of the establishment of an independent, dedicated civilian cyber agency, in contrast with the possibility of giving the responsibility to the existing security establishment agencies, reflects the open thinking of Netanyahu, who understood the need to adopt a unique approach that would allow for balancing between protecting fundamental values, reducing barriers to economic activity, and ensuring national security. These kinds of decisions are the ones that enabled Israel not to lose an important advantage with the increasing use and sophistication of cyberattacks today in military, criminal, information security, and other aspects. This decisive meeting also teaches us about the relations of trust that developed between the Prime Minister and Matania from when they first met in 2011 (p. 61) until the moments of decision in September 2014, when Matania served as the head of the National Cyber Bureau. Matania understood what an important juncture it was and finally succeeded in convincing the Prime Minister that "in the new world, you organize with new forces," as Netanyahu himself expressed at the

beginning of the government meeting held after the decision was taken (p. 121).

Most of the literatures so far on the cyber-digital issue has focused on professional information on cyber security, development trends, and the impacts of cyber in specific fields such as ethics, politics, international relations, and more. In this literary landscape, while the central role of Israel in shaping the cyber dimension has been studied academically, including the thinking regarding cyber security, it has not been brought to the fore as a narrative, aside from two main exceptions. The first is the book by Dan Senor and Saul Singer, *Start-up Nation* (Senor & Singer, 2011), which tells how Israel became a center of innovation and technology. This book received extensive international attention that contributed to Israel's branding in the world as a leading arena for entrepreneurial culture. Another exception is the book by Lior Tabansky and Isaac Ben-Israel, *Cybersecurity in Israel*, which tells about the development of thinking regarding cyber security in Israel and connects the government's policy with the reduction of risks in the realm, alongside leveraging the opportunities that have made Israel a cyber power. *Cybermania*, in contrast, presents the Israeli story from a perspective that includes Matania's personal dimension at the time of shaping the government's decisions, including an important chapter on a topic that hasn't previously been discussed, namely, the developments after the middle of the previous decade, starting in 2015, and hence its unique contribution.

Describing the short history of the cyber revolution from a security perspective also leaves other open questions that the authors address, about the future of the cyber era, the changes expected following the implementation

of systems based on artificial intelligence, the changing nature of wars, and preparations for such wars. The obvious conclusion is that nothing lasts forever, and while Israel has taken its place as a world cyber leader, its ability to meet these challenges depends to a large extent on integrating the assets of its power, through inter-sector partnership, with its ability to identify changes and adapt to them and to leverage its successes for achievements that will mitigate cyber threats.

As a result of the combination of circumstances, the Israeli cyber story shows how the national ethos of daring, original thinking, and persistence is more relevant than ever to maintaining the relative qualitative edge that is at the basis of Israel's security concept. While *Cybermania* is a book about the future, its main essence is presenting an important and hidden chapter in the current history of the development of the Zionist enterprise that now constitutes a central and inseparable pillar of Israel's national security.

Dr. Nir Hassid is a postdoctoral fellow in the School of Political Science, Government, and International Affairs at Tel Aviv University. He lectures in the school's Cyber Politics and Government Program and the Security Studies Program. His areas of study include the geopolitics of cyber and international security. Dr. Hassid earned his Ph.D. from the Department of International Relations at the Hebrew University of Jerusalem. nirhass@tauex.tau.ac.il

References

- Senor, D., & Singer, S. (2011). *Start-up nation: The story of Israel's economic miracle*. Random House Digital, Inc.
- Tabansky, L., & Ben-Israel, I. (2015). *Cybersecurity in Israel*. Springer International Publishing AG.