Chip War: The Fight for the World's Most Critical Technology

Chris Miller, 'Chip War: The Fight for the World's Most Critical Technology,' (New York: Scribner 2022) 651

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The book, "Chip War: The Fight for The World's Most Critical Technology," written by Chris Miller curates the significance of strategically critical element of the 21st century. Miller provided an epic account of microchips and their similarity with the crude oil of the 19th century. The pinnacle of the book is to capsulate the message that the tale of technology has remained in the footnote of historical events and locus has remained kept around the weapon race. However, the importance of chips has grown manifold, and the fate of nations is edifice over their potential of harnessing computing power. Therefore, the future unfolding will be predicted from the lens of cutting-edge technology.

The book consists of eight chapters, starting with the timeframe of World War II. The "Cold War Chips" brings insights into the journey of great powers from Steel to Silicon. It expounds that primarily economists measured the success of the state from the prism of attaining control of iron, copper, rubber, and oil. This unchecked reach to resources especially equipped America to stretch its military might. The desire to expand political, economic, and military muscles sparked the idea of making machines able to think like humans. The notion opened a new era of development where the precision in military weapons reshaped the pattern of war towards Artificial Intelligence.

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"The Circuitry of American World" which makes chapter two of the book, uncovers the barred realities of the Cold War. The details garnished over the entire chapter punctuate that America won Cold War because it established leadership at the frontiers of technology. On the other hand, the Soviet Union was functioning solely over the "Copy It" strategy that led to abject failure in catching up with the US.

In chapter three "Leadership Lost," the author effectively paints how America's internal wiring changed and paved way for the digital world to merge into an industrial society. It provides a road map of how American semiconductor firms reach out to Korea, Taiwan, and Southeast Asia. This map of connectivity from South Korea to Taiwan, and Singapore to the Philippines became the true depiction of American military bases across Asia. However, after two decades the tables turned, as Japan posed a cutthroat competition and its access to tech growth posed an eminent existential crisis to the US.

The fourth and fifth chapter delves into America's resurgence and its role in integrating the world through integrated circuits. During the era of 1990s, the world took a fascinating ride of globalisation that transformed the patterns of production, assembling, and the entire global supply chain of semiconductors. These chapters elucidate that on the chessboard of a borderless world, chips became the sole driver of power.

In chapter six "Offshoring Revolution," the author pinpoints the challenges faced by US-based Intel company. Its business was now overshadowed by other tech firms with different business models. China's entry into electronic assembly proved to be a bottleneck for US tech firms. Keeping in view the cutthroat competition, Washington formulated the strategy of "Running Faster." Though it was a precisely accurate strategy, however, in major key metrics, the US was not running faster, hence losing its ground in critical areas of tech.

Chapter Seven embarks upon the journey of China toward tech advancement. It extensively enlists ways through which China's tech giant Huawei posed challenges to other major powers. The author has shrewdly highlighted the enticing nature of the Chinese market that compelled international companies to pour in money and technology. The root cause of America's stumbling growth lies in Washington's declaration of protection policy to strengthen national firms. While on the contrary, China went global and carved its economic and technological vision around the dynamic innovative growth model. Additionally, China signed up for the race of deploying systems empowered by Artificial intelligence because Chinese firms realised that the race is not solely about single technology but rather of complex integrated systems.

The last chapter of the book takes the reader through the recent underdevelopment. It discerningly inspects the dilemma of chip choke and its implication for tech-oriented states. The phenomenon of globalisation that has become reality due to tech innovation has made countries more intertwined than ever. However, rather than defusing and encouraging new endeavors of interdependence has created new ventures for competition. The chip chokes have started asphyxiating several sectors of the world economy and the US-China tech war is a prime example of it. Therefore, the debate left for the US is whether it should try to derail China's growing chip economic system and hence face inevitable counter-reaction - or whether the US opts for other smarter and indirect ways to drive China's chips peters out.

The entire book provides a meticulous read from the invention of chips in America to the establishment of a global supply chain concentrated in Asia. It is undoubtedly an engrossing read entailing sufficient knowledge tailored around geopolitics, economics, and technology. The writer subtly makes the reader live through the experiences of all the remarkable personalities which include Akio

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Morita, Morris Chang, and Andy Grove. Moreover, Miller efficiently describes each mastermind of computing through their facial expression which keeps the reader glued to the pages. Miller wrote the most captivating line that "their (Chips) clothing was of the West, but their love rites were founded in the ancient pleasures of the East," which is a precise manifestation of the entire book.

The book encompasses all details essential for tech-savvy, policy analysts, strategists, and political scientists to comprehend the future unfolding and formulate sound policy framework. Miller showcases how the chip industry will dramatically reshape the entire political and economic world order. Chip War is a must-read book as it educates its readers, with minute details and keeps the reader on his toes.