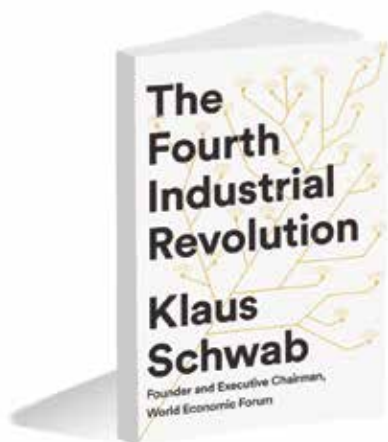


Revolution Evolution



Klaus Schwab

The Fourth Industrial Revolution

Crown Business, New York, 2017, 192 pp., \$28 (hardcover).

In this admirably short and graceful book, Klaus Schwab takes us on a breathless tour of a technological, economic, and social revolution. The first industrial revolution moved us from muscle to mechanical power between 1760 and 1840, the second brought mass production in the late 19th and 20th centuries, and the third delivered mainframes, PCs, and the internet through the 1990s. The fourth, according to Schwab, builds on the third but is much broader and more significant. Machines are becoming smart and connected, contributing to a dynamic fusion of technologies in the physical, digital, and biological and leading to change “unlike anything humankind has experienced before.”

Discussion of the economic and social implications of the current technological revolution is now familiar. What is distinctive in this book is the “spirit of Davos.” Schwab is the founder and head of the World Economic Forum (WEF), an independent international NGO dedicated to improving the world and famous for its annual assembly in Davos of leaders from “business, government, civil society, faith, aca-

demia, and the young generation.” Schwab draws on his WEF contacts and a rich set of WEF reports to grapple with what this revolution means for businesses, governments, individuals, and society.

The book starts with a whirlwind tour through the “megatrends” of the ongoing revolution: artificial intelligence, robotics, the internet of things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, and so on. Schwab emphasizes not the individual technologies but the overall sweep of change: the unprecedented diffusion of “disruptors” such as Airbnb, the iPhone, and now autonomous cars; and a reduced role for workers. The “big three” companies in Silicon Valley in 2014 had the same revenues as the big three Detroit car companies in 1990, three times the market capitalization, and one-tenth the workers.

Tremendous economic growth will ensue. Schwab looks past Robert Gordon’s deflating fact that, in the United States at least, we have seen not a takeoff but rather a slowdown in productivity growth since 1970, except for a brief internet-fueled boom in the 1990s. He argues that the payoff is not yet here, because, as his WEF contacts tell him, the fourth industrial revolution is just beginning, and leaders are struggling to enact what must be a revolution in economic and organization structures in order to benefit.

The rest of the book reviews a broad range of challenges and opportunities for businesses, national and global institutions, governments, society, and individuals. Will the revolution unleash new prosperity and give workers productive new jobs, or will mass unemployment ensue? To Schwab, “(h)istory shows that the outcome is likely to be somewhere in the middle,” and the key is to foster positive outcomes and help those caught in the middle.

Will the on-demand economy, à la Uber, and the flexibility and mobility of the global digital economy

empower people or trigger a race to the bottom? For Schwab, “the challenge we face is to come up with new forms of social and employment contracts . . . [that] limit the downside . . . while neither curtailing the growth of the labor market nor preventing people from working in the manner they choose. . . . The choice is ours.”

What is distinctive in this book is the “spirit of Davos.”

The book is perhaps strongest when Schwab leverages his WEF contacts and context to emphasize the challenges for individual members of organizations facing the revolution. I came away with a renewed sense that—like the proverbial shark that must swim to survive—we must learn and change. “The ride will only get faster, and the journey will therefore require a hard and honest look at the ability of organizations to operate with speed and agility.”

It took me some time to grasp the thrust of many of the conclusions; I suppose I was looking for specific policy recommendations. However, to understand the purpose of this book, we must return to Davos and the idea that collaboration permits a “holistic perspective of what is going on . . . that is critical to develop and implement integrated ideas and solutions that will result in sustainable change.” This book seeks a holistic understanding of the fourth industrial revolution, but I worry, as I’m sure Schwab does too, that the collective understanding of the world’s elite is not enough to meet the challenges ahead.

Andrew Berg
Deputy Director
IMF Institute for Capacity
Development