

## **Book Review: *The Fourth Industrial Revolution*.**

**Author: Schwab, K. (2017). UK. Portfolio Penguin**

**Reviewed by: Assoc. Prof. Chanongkorn Kuntobutr, Ph.D.**

According to the rapid change from technology development appearing today, the crucial to everyone in our global society is how one can predict the future from technology and industrial revolution. The revolution is dramatically changing our daily life from individual to an entire society. The evidence can be seen from smartphone which performs as super computer, computer software which replaces employees in overall system of an organization, the internet which individual can make oneself replace prior mass media, and a trend of self-driving car.

The author of "The Fourth Industrial Revolution" is Professor Klaus Schwab. He was the founder and executive chairman of the world economic forum that has been at the center of global affairs longer than four decades. He presents his idea on the industrial revolution that may have an impact on future with the linkage from history, systematic change, drive of change, and impact on society and individual. This is an advantage of this book offering to the readers.

In the historical context, he mentions that the first profound shift to the transition from foraging to farming occurred approximately 10,000 years ago making the possibility of the domestication of animals. Then, industrial revolution during 1760 - 1840 liberated people from animal power to machine power making mass production available to the industry. The third industrial revolution is computer revolution catalyzed by the development of semiconductors, mainframe computing, which consequently become personal computer, and the widely use of internet. This section highlights the profound and systemic change by explaining the disruptive technology and the speed of innovation and faster diffusion than previous period of time. At the end of this chapter, he predicts the fourth industrial revolution that will contribute to the consumers and producers concerning innovation and disruptive that will affect people standard of living and welfare in both positive and negative direction. However, rising of inequality and concerns about unfairness becomes a significant challenge to policy makers to enact the changes which encourage the fourth industrial revolution and equality opportunity for all.

Considering the driver of the fourth industrial revolution, he starts his explanation from the explanation of megatrends and broad landscape of technology drivers. The four major evidences of the technological megatrends are mentioned as autonomous vehicles, 3D printing, advanced robotics, and new materials. Moreover, the digital revolution is explained in terms of its radical creating new approaches to revolutionize the process of engage and collaboration between individual and institutions. He places an importance on the internet of things that is the simplest

form to connect people with things by various platforms. Consequently, sensors and other means of connecting things lead to the financial technology such as bit coin are discussed.

The following chapter is concerned with how the fourth industrial revolution affects society and individuals. The important factors concerning the revolution are economic growth, the aging of world population, productivity, employment, labor substitution, and impact on skills of people in the workforce. The four major impacts relevant to the business are: 1) Customer expectation are shifting; 2) Data will improve the productivity and enhance product; 3) New partnership from the awareness of importance from collaboration; and 4) Operating models are being transformed into digital models. The disruptive changes from the fourth industrial revolution is particularly important to the government which is responsible to the governmental component such as taxation, regulation, security and privacy, and all others.

The other interesting information available in this book is the dynamic of war from land, sea, and air to cyber warfare. The disruptive technology will transform military activities which are used to be physical components in overcoming enemy to destroy enemy decision-making capability. These military activities will make the distinction between war and peace unclear. In addition, the book addresses autonomous warfare including the military robot and artificial intelligence (AI) which encourage transforming future conflict into robot war. One can see the flying robot such as drones which can combine with artificial intelligence and threaten public target by individual.

Finally, the author discusses the social topic of how most societies can accommodate the scientific advancement, commercialization, and diffusion of innovation while embracing their traditional culture and value system. The readers can follow the way forward by the fourth industrial revolution addressed in the last section.