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-BOOK REVIEW-

The Fourth Industrial Revolution – challenges of the future

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Klaus Schwab (2016): *The Fourth Industrial Revolution*. Portfolio Pinguin.

Industrial revolutions have always been both beneficial and challenging as they have implied transformations not only in the industries, but in societies, too. The so-called Fourth Industrial Revolution (4th IR) can be connected to neo-liberalism which is against the capitalist terrain. The author of the book, Klaus Schwab, who is a German economist, and the founder of the World Economic Forum (WEF) reflects on some academic and professional considerations which complain that the 4th IR is simply a part of the 3rd IR. His argument points are standing on three pillars: velocity, breadth-depth and system impacts. He writes that this IR has an exponential rather than a linear pace, so that new technology begets are spreading faster than ever before. Besides, this IR is built on the digital revolution – this is how it leads to unprecedented paradigm shifts in the economy. At the same time, system impact means that the system of the world is undergoing a transformation that contains countries, companies, and industries, too.

Accordingly, *The Fourth Industrial Revolution* is not a light read. The author draws a picture of Davos and the WEF in a style that is more like an argument. The need of creating new narratives to guide the world through the 4th IR means in that context that we need to understand the new definitions and practices of work, communication and even *life*. Schwab enhances that

we need to realise the impact of these tendencies because the impact of these depends on how we design development, empowerment and possibilities. It also means that the book is not only for experts, but also for non-specialists. too.

The book is organised into three parts and covers a wide range of issues: I. The Fourth Industrial Revolution; II. Drivers; III. Impact. Over the course of these chapters, *The Fourth Industrial Revolution* shows aspects from diverse fields. All the sections are used to support the same conclusion: the 4th IR will impact all disciplines by the new technologies fusing psychical, digital and biological worlds.

The first chapter explains the historical context of the 4th IR and interprets it as a profound and systemic change. Schwab sees the situation through radical glasses which were created by societies and economies of the countries of the world – in a global context. He refers to the Hannover Fair in 2011 claiming that „smart factories” are creating a world in which virtual and psychical systems of manufacturing are globally cooperating. We could raise the question of how it affects the elderly? These innovations are diffusing faster than would realise so that the professionals working in the social and health care need to be up to date.

The second chapter goes on with the theme of drivers of the 4th IR. With the first chapter these are not so long reads, but these are the pillars of the third chapter – which is about the impact of the 4th IR. The author divides the technological megatrends of the drivers into three parts: psychical, digital and biological. The psychical megatrends contain autonomous vehicles, 3D printing, advanced robotics and new materials. Referring to these technologies in connection with the field of gerontology, I would enhance the importance of the artificial intelligence-based robotics in elderly-care which can be the solution to many problems of the sector – labour shortage, lack of experts, and as a psychical matter: companion for the elderly.

The third chapter focuses on the impact of the 4th IR highlighting the aspects of the economy, business, society and also the individual. Schwab draws the attention to the aging trend of the world – according to forecasts the world’s population is to expand enormously, however, the demographic trend of aging is a defining one. He sees it as an economic challenge because of the drastically increased retirement age. He states that older members of the society should continue to contribute as a workforce if this tendency is affecting us in the future. It will also mean changes in habits which could also have an impact on social norms, too. The author

reflects on some ideas in connection with beliefs about the new technology age. He does not believe that there will be a new cultural renaissance bringing the feeling of inclusion to a truly global civilization. Rather than a utopian conclusion, he focuses on the fact that we have a choice in deciding what to do with the new IR: robotization of humanity (so that we can compromise the traditional sources of the meaning of work, community and even identity), or developing humanity (by a new collective consciousness based on a shared destiny).

Some reviews say that the language of the book is more like a bullet-point styled report because it contains very few discursive arguments, opinions or illustrations. My opinion is quite the opposite – the writer probably had a purpose with the stylistics of the book. By stating facts and trends, he was trying to create a professional debate and discussion on the subject, for which he exhausts his subjective opinion in the presentation of the topic. There have been similar books in the field of sociology – just one example is Beck's *Risikogesellschaft*. It may be also interesting to note that the book was published in a left-closed edition, which I found disturbing in certain parts.

I think that *The Fourth Industrial Revolution* has many aspects of the life of both today and tomorrow. It gives a broad picture to the reader about tendencies about developmental trends of the forces of production with capitalist relations.

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