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KLAUS SCHWAB'S "THE FOURTH INDUSTRIAL REVOLUTION" AND THE DISCUSSION OF ISSUES RELATED TO ARTIFICIAL INTELLIGENCE

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Abstract
This article examines the issues related to artificial intelligence as discussed in Klaus Schwab's book The Fourth Industrial Revolution.

Keywords: The Fourth Industrial Revolution, artificial intelligence, Klaus Schwab, technological development, social inequality, technological determinism, international diplomacy, global cooperation.

Introduction

Klaus Schwab, a German engineer, economist, and founder of the World Economic Forum (WEF), was born on March 30, 1938, in Ravensburg, Germany. After completing secondary school, he obtained a Bachelor's degree in Engineering from the Swiss Federal Institute of Technology in Zurich in 1961. He later defended his doctoral dissertation in Economics at the University of Freiburg. In addition, in 1967, he studied at the John F. Kennedy School of Government at Harvard University.

Furthermore, Klaus Schwab has initiated projects aimed at promoting social entrepreneurship, including the Schwab Foundation for Social Entrepreneurship (1998) and the Global Shapers Community (2011), which unites young leaders around the world.

Materials and Methods

Klaus Schwab has achieved significant accomplishments in academic and scientific activities. He served as a Professor of Business Policy at the University of Geneva from 1972 to 2003 and has been awarded 17 honorary doctorates. Additionally, he has received numerous international honors, including the Order of the Rising Sun (Japan), the Grand Cross with Star (Germany), and the Légion d'Honneur (France).

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Schwab's 2018 publication, Shaping the Fourth Industrial Revolution, is considered one of his most important research works. In the foreword of the book, Mark Benioff, a member of the Board of Trustees of the World Economic Forum, emphasizes that humanity is living in an era of profound technological transformation. He notes that the pace and scale of revolutionary developments emerging from research centers, startups, and large organizations are astonishing, and that what was once considered "science fiction" has now become tangible products and services. Benioff highlights that Klaus Schwab's The Fourth Industrial Revolution is a key work that helps readers understand the main directions shaping the modern world in which we live [1].

Results

The book is structured into three chapters. The first chapter provides a general overview of the Fourth Industrial Revolution. The second chapter analyzes the key technologies driving these changes, with particular emphasis on artificial intelligence (AI – M. Alijonov), while the third chapter focuses on the impact of the revolution on the global community and the potential challenges it may generate.

Although Klaus Schwab writes enthusiastically about the Fourth Industrial Revolution, he also acknowledges another perspective from a scientific standpoint. He notes that, although the world has entered the era of the Fourth Industrial Revolution, 17% of the global population has not fully experienced the Second Industrial Revolution, as approximately 1.3 billion people still live without access to electricity. Schwab points out that the unequal distribution of material resources, resulting from colonial policies that intensified in the late 19th and early 20th centuries, and the "innovation adoption lag syndrome" ingrained in the consciousness and mentality of nations affected by dependency, continue to keep billions of people at the threshold of the Second Industrial Revolution.

Furthermore, Klaus Schwab pays significant attention to artificial intelligence (AI) in his book. He considers AI to be a powerful force at the core of the Fourth Industrial Revolution. The reason lies in AI's ability to make decisions quickly and accurately based on events, data, and accumulated experience.

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Discussion

Schwab identifies several advantages of AI:

Rational, data-driven decisions: Such decisions are generally more accurate and less prone to bias.

Saving human time and intellectual effort: AI can handle irrational or counterintuitive decisions efficiently.

Reducing bureaucracy: AI can streamline governmental structures and enhance their operational efficiency.

Job creation through industrial applications: The widespread use of AI in production can generate new types of professions, creating additional employment opportunities.

Medical applications: AI can assist in early detection of diseases and their effective treatment.

The author also addresses the potential negative aspects of AI, citing examples such as the reduction of jobs, the rise of cybercrime, and, most critically, the possibility that AI could pose an existential threat to humanity. It is worth noting that similar warnings about such consequences and threats have also been highlighted by Yuval Harari [2], Michio Kaku [3], Ray Kurzveil, Nik Bostrom [5] have also been warned by similar scholars.

At the same time, Klaus Schwab emphasizes in his work that artificial intelligence is progressively increasing its capabilities. He notes that a language-processing AI, “ConceptNet 4” has been able to perform better on an IQ test than a four-year-old child, whereas three years earlier it could not even compete with a one-year-old. Based on these observations, the author highlights that the newly developed and fully updated version of ConceptNet 4 is expected to operate at the cognitive level of 5–6-year-old children [1].

Furthermore, Klaus Schwab’s The Fourth Industrial Revolution also provides reflections on how artificial intelligence should be utilized in international diplomacy. According to the author, global cooperation is of paramount importance in managing AI and other advanced technologies. Achieving this requires strengthening mutual trust and collaboration among states and developing frameworks to govern technologies in a safe and equitable manner—tasks that are among the most urgent in today’s world.

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However, the ideas presented in Schwab's The Fourth Industrial Revolution have also received critical responses from several scholars. Notably, South African scholar Ian Moll has evaluated Schwab's work as a form of new ideology and expressed a critical assessment. According to Moll, the book primarily represents research aimed at protecting the interests of global elites [6].

American scholar Andrew Maynard has also taken a critical stance toward Klaus Schwab's aforementioned work. Maynard "accuses" Schwab of overlooking the social consequences of technological changes and of not adequately addressing international initiatives and innovative research [7].

British scholar Tim Unwin has evaluated the concept of the Fourth Industrial Revolution from a technological perspective, considering it a deterministic theory [8], The journal Conservation has warned that the technological optimism presented in the work could potentially exacerbate social inequalities on a global scale.

Conclusion

In conclusion, Klaus Schwab's The Fourth Industrial Revolution is an important study that provides an in-depth analysis of the global impact of contemporary technological development. The author identifies artificial intelligence as a key driving force of the Fourth Industrial Revolution, highlighting its role in producing profound changes in society, the economy, and politics.

Furthermore, Schwab reflects on the prospects of using artificial intelligence in international diplomacy, emphasizing the crucial importance of global cooperation among countries in this context.

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