

AI Artificial Intelligence and Myths about the Future Workforce

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ABSTRACT

Recently, artificial intelligence (AI) has spread all over the world, and discussions about artificial intelligence have also begun to attract people's attention. Today, the application of artificial intelligence (AI) has become increasingly widespread; from home appliances to mobile phone applications; from daily life to national defense technology, all are inseparable from artificial intelligence (AI). Some people may ask "what does artificial intelligence have to do with me?" Although the public knows that artificial intelligence is involved in their daily lives, it seems that they undervalue artificial intelligence (AI), and this undervalue of the development direction of artificial intelligence (AI) may have a devastating impact on "them" and even "humanity" itself.

Key Words: artificial intelligence (AI), human labor force, labor, production possibility frontier (PPF), artificial intelligence production possibility frontier (APPF)

Introduction:

With the increasing popularity of artificial-intelligence (AI), "their" AI applications have gradually and unconsciously occupied the daily behaviors of the public, such as the application of "Facebook" and the rise of fast social media social platforms, which have had an impact on people's daily lives. In response to the "what does it have to do with me" question mentioned in the previous paragraph, the most important impact of artificial intelligence is our "choice" behavior. "Choice" behavior is not only a hot research topic in economics today (choice behavior), but also the focus of this article.

As we all know, since the Industrial Revolution 200 years ago, the social economy has experienced several major transformations, including the British Steam Industrial Revolution in the early 18th century, the American Electricity Industrial Revolution in the early 19th century, and the Internet Revolution in the early 20th century. All of these have produced earth-shaking

changes in human life; especially in terms of economic development and the development of social ideology, they have had an indispensable impact on our lives.

The explosive growth of popular information on the Internet, the resulting changes in consumption patterns, the rapid placement of advertisements, and the rapid rise of "product placement" on social platforms, all have a profound impact on our "choice" behavior. The choice of "behavior" itself is not only restricted by one's own socio-economic resources but also dominated by today's "credit" model.

Through a large number of placement ads on social platforms, the user group is quickly "brainwashed" to refresh their deposits. With the rise of personal "credit" and "credit cards", advanced consumption in the form of consuming future money first emerged. This consumption behavior subsequently "overdrafts" future disposable income, and also "overdrafts" the development of the economy and today's industries.

After the blackout period, people can't help but ask, what did we do in these three missing years? Most people's answer is that there is increased use of the Internet and greater consumption of online content. In fact, behind the economic shutdown and school closures, there is also a huge crisis for the world and society. This hidden social crisis is not only a problem with the socio-economic structure, but also has an indelible impact caused by the shutdown, for example, school closures have caused more than hundreds of millions of children around the world to be out of school, leading to academic disruptions. The economic shutdown has caused social consumption and other issues, leading to changes in consumer choice behavior, such as the rise of "fast abnormal culture". These have "hidden" huge "psychological behavioral" fast and huge hidden dangers in "rational" behavior in society. These suppressed "hidden" emotional behaviors will one day explode, which will have an important impact on the social economy and people's livelihood.

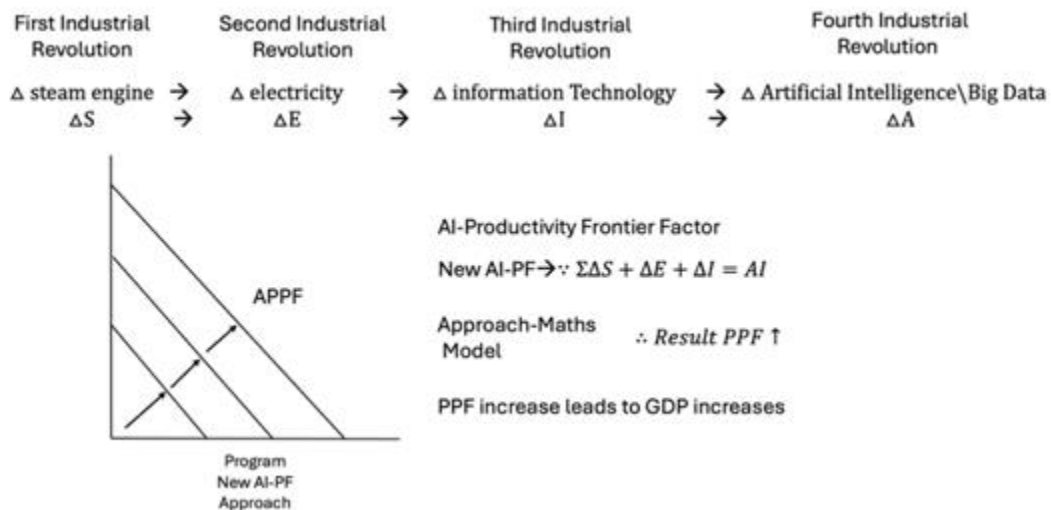
Now, artificial intelligence (AI) is driving the fourth industrial revolution, and advanced AI technology will help propel the world's innovative economic development model. From the paper presented by Olu et al. (2023), it is stated that there is an economic phenomenon that influences the demand for alternative choices, which means that economic development will cause a certain degree of variation in people's living paths.

This research article posits that fast artificial intelligence is expected to lead the fourth information transportation industry revolution after the steam revolution, electrical technology innovation, and even the information revolution. There is no doubt that artificial intelligence combined with big data systems can enable production factors to be used more efficiently and effectively reduce production costs, which has an indispensable impact on the new development

of the labor market. Artificial intelligence technology can effectively reduce efficiency, release labor, and improve resource allocation efficiency in application, and its huge role in industrial upgrading has been reflected.

This research paper introduces an industrial revolutionary model. To the certain extent, this model may clarify certain aspects of the structure of the industrial project. We assume this growth approach involves a parallel shift in change, so it might not appear as an exponential curve. Instead, this shift could become quite similar when the population widely adopts AI technology in the near future, in their choice selection. In other words, this predictive model will use an increase in the shift in change to reflect a similar exponential phenomenon in specific calculations. As long as this industrial revolution follows the historical path of technological development, each subsequent stage is fundamentally built on the previous one. Therefore, in a broader historical context, they all form part of the same projection in shift in change.

Figure 1: Model of APPF (AI Productivity Possibility Frontier Model)



Discussion:

What is artificial intelligence? To put it simply, it is the combination of computing power, algorithms and big data. The basic principle of artificial intelligence is the technology it uses, which is built on the data chain. Kuaier artificial intelligence is a basic human fusion of mechanized software and hardware, and further uses reasoning to simulate situational responses to produce somatosensory expressions close to humans. Examples include autonomous driving systems with automatic sensing devices, driverless private cars, etc. The biggest selling point of artificial intelligence is its reasoning and learning capabilities. It is based on big data and uses algorithms as the core technology. It has a high degree of adaptability and can adjust reference

data as environmental parameters change to optimize the model.

According to esteemed academician Zhang Hongjiang (2005), a distinguished expert in electronic engineering from the United States, the proliferation of artificial intelligence (AI) is projected to unfold over a minimum timeframe of ten years. His insight underscores that the progression of AI technology is predicated on empirical evidence suggesting it may approach, or even surpass, human cognitive capabilities. This technological trajectory is poised to instigate profound upheavals in the labor market, precipitating substantial displacement in various occupational sectors. Concurrently, the advent of advanced AI systems is also anticipated to catalyze the emergence of new job categories, thereby reshaping the structure of employment. These developments imply significant implications for economic models, labor supply and demand dynamics, and the overall productivity paradigm.

This research article posits that within the ongoing paradigm shift catalyzed by advancements in artificial intelligence, the forthcoming pivotal stage of technological evolution will be characterized by a comprehensive robotic revolution. It anticipates that such a transition will entail significant economic implications, including shifts in labor markets, capital allocation, and productivity metrics, driven by the integration of autonomous systems and intelligent automation across various sectors.

This impending transformation is poised to induce profound shifts in the structure of future labor market demand, characterized by the obsolescence of numerous existing job categories. Simultaneously, the advent and integration of artificial intelligence technologies are expected to catalyze the emergence of innovative job roles, thereby contributing to a dynamic reallocation of human capital. This dual phenomenon underscores a paradigm shift in economic activity, reflecting both displacement effects and the creation of new employment opportunities within the framework of technological progress and industry revolution 5.0.

In the publication "The Future in Brief" (Harari, 2023), industry analysts posit that human capabilities are likely to degrade relative to rapidly advancing artificial intelligence systems. The argument highlights a persistent technological gap, where human cognitive and physical performance may become increasingly subordinate as AI technologies evolve at an exponential rate. This scenario highlights concerns within the professional economics and technological forecasting disciplines regarding the potential for AI to outpace human adaptability, resulting in a sustained comparative disadvantage for human labor and decision-making processes across various sectors.

This research article suggests that this crowding out effect may not fully happen in the future in one direction, but as this kind of automation AI effect may lead to two steps ahead.

That is, on the one hand, without technological innovation, developing human capital alone cannot maintain employment levels. It indicates that automation and mechanization will inevitably replace much of human labor, leading to a negative feedback loop that hampers workforce growth and reduces the effective use of human resources. This phenomenon emphasizes the pivotal role of technological progress in driving employment creation and economic growth in a dynamic, knowledge-based economy.

In addition, humans will never learn faster than machines, and the dual opposition and polarization caused by technological innovation may soon lead to polar opposition in social classes and even the economy, making the differentiation more intense. This not only affects the demand for labor but also has a subversive impact on the use and allocation of human resources in the industrial, economies and society structure. At this time, social economies order will inevitably need to be rebuilt, especially the industrial system of the economic system, and even the flow and change of the population will have a certain driven impact.

But on the other hand, the revolution in AI industries revolution may bring a new sense of pride and opportunities to support the economic system, which will, in turn, create more jobs in the future.

The ongoing revolution in artificial intelligence (AI) industries is set to drive substantial economic transformations. As AI technologies progress, they are likely to foster a greater sense of national pride and technological prestige. This research paper predicts that AI technology industrial revolution may happen in the shift to robotic AI industrial revolution in the near future. Moreover, the the AI-driven automation in robotic can stimulate increased productivity across multiple sectors, thereby contributing to economic growth. This technological shift is expected to generate new market opportunities and foster entrepreneurial activity, which, in turn, can lead to the creation of a substantial number of high-quality employment opportunities. Consequently, the integration of AI into various industries has the potential to enhance the dynamism of the labor market and serve as a critical driver of sustainable economic development.

That mean, the ongoing revolution within the artificial intelligence sector has the potential to generate a significant boost in national pride and foster new economic opportunities. This technological shift is expected to enhance productivity, stimulate innovation, and attract investments, thereby fortifying the economic infrastructure. As a consequence, this dynamic transformation could catalyze the creation of additional employment opportunities across various industries, further contributing to sustainable economic growth and resilience.

The main idea is that this back-and-forth effect may serve as a form of time dilution. The time lag could counteract the crowding-out effect of human labor layoffs when new types of jobs are

created and the economy improves. This means that if a society's economy experiences significant growth, more jobs will eventually be generated. Although AI will initially replace human labor in automation and other industries, in the long run, human labor will recover, resulting in the creation of new jobs. This is certain if the economy is substantially booming.

Future Face look:

In examining historical globalization processes, one observes that it significantly contributed to the proliferation of transportation modalities and the diminution of transaction costs, thereby enhancing cross-border trade and economic integration. This phenomenon facilitates the spatial reallocation of production activities, whereby jobs that are characterized by routine and standardized tasks tend to become vulnerable to obsolescence in regions where comparative advantages shift. Extrapolating this framework to the contemporary epoch marked by advancements in artificial intelligence (AI) and AI-robotics, we can infer that automation technologies possess the potential to supplant human labor in similar routine-intensive roles. Consequently, as AI-driven systems and autonomous agents attain capabilities comparable to or exceeding human performance in these tasks, employment in such sectors is likely to experience significant contractions or eventual obsolescence, leading to profound implications for labor market dynamics and economic restructuring.

Conclusion:

Therefore, some people may ask about the future development of humanity, especially when the human labor force is eliminated; how should humanity deal with it? Looking at the positive side, the new types of jobs created by new technologies will inevitably lead to the disappearance of many types of jobs. However, looking at the negative side, humans may be replaced by AI artificial intelligence, potentially entering a stage of labor, which could lead to a world war between humans and machines.

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