

# A Review of *Marx and the Robots: Networked production, AI, and Living labor*

Dinh-Dai Le<sup>1</sup> & Tuan-Dung Dang<sup>1</sup>

1. Institute of Philosophy, Vietnam Academy of Social Sciences

Correspondence: [dangtuandunga7@gmail.com](mailto:dangtuandunga7@gmail.com)

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Hostile tensions continue to escalate. Soon afterward, humans install new bodyguards that are great products of the digital technology era: robots. These humanoid figures—a deep learning-based Bird Image Identification System, using TensorFlow, and, made of durable materials—are very sophisticated and stand in the fields in all their haughty superiority. More amazing is the fact that these robots are armed with various tools to combat incoming birds.

- In BOGEYMAN *Wild Wise Weird: The Kingfisher Story Collection*, Vuong (2025)-

Karl Marx (1818 – 1883) has been one of the most controversial individual ever walk on Earth. Passing away in 1883, more than 100 years now, yet he left behind such a legacy – a world, changed forever by him. His vision about what the world was, is, and is going to be, has given birth to an ideology after his name – Marxism – and its influence can be seen days in days out. It has been provided as one of the fundamental worldviews of most social movements around the world since its appearance, some of which has had the historical role of changing the political landscape, demolishing the prejudiced values in most of societies and civilizations to the point that I can say, we all live with, benefited from or harmed by all of us today. As long as the current society exists (Ho & Vuong, 2024), I would say, as Jacques Derrida said, the spectre of Marx – “the spectre of communism” would haunt all of us as the reminder of what we should do to solve the problem of society, not through its superstitious power, but through an actual scientific analysis.

The current technologies and its influence over our society has become the new “victim” of this spectre. In fact, it has been “the victim” of Marx himself in the past.

But things seemingly have changed. Looking at the society nowadays and compares to the one Marx lived within 100 years ago, the first impression people going to have is the

side eye towards anyone lecturing about Marx and his theory, some might laugh out loud and say “give me a break !” even. Marx? In this era? The time when anyone, including the working class, can buy anything they want and have a chance to achieve anything through “technologies” just like their bosses? What do you want more from this? And they have a point. There goes a time when the proletariats need to work more than 8 hours per day with 6 days per week through their entire life, and they still have a 50/50 chance of being fired for no reason if their bosses want to. The images of poverty, famine and social unstable situation seemingly belong to a past that can only appear in history books. Not only that, with the news that we can watch, see, it seems like a new “era” occur everyday, the speed of changing is faster than anytime in history with new technologies appear everyday and can be obtain by anyone in the world. We have heard the message of every politicians and leaders from everywhere of the world: “We are going to a new dawn of humanity. It is going to be really ... really ... really different.”

... Or is it?

We must ask ourselves, what is different actually? Is it better? Beside what we have seen that could be considered “progress” in technologies, what is different, especially about social system? We are seeing civilians being murdered as “casualties” in ongoing conflicts all around the world (Al-Mughrabi, 2025; Hunder, 2025), we are seeing the unstable of politics around the world with ongoing trade wars, even from the biggest nations(Goldman & Towfighi, 2025), we are seeing unemployments, the exploitation of human labor in many way, shape and form (Rowe, 2023). It seems like outside some new fancy technologies from big tech companies around the world, nothing has changed, at least, for the better (Ho & Mantello, 2024). At worst, we are seeing the same perpetuated cycle of violence and exploitation. The view of progressive that we have seen in social discourses is challenged, the question now is: Is the development of technologies really automatically leads to the development of society as a whole? If so, why would it not happened yet? Have we been wrong on our approach of this situation?

And it is from this pessimistic worldview, Marx is resurrected. Numerous scholars have tried to seek toward Marx’s works of philosophy, sociology and economic to study the essence and the impact of technologies, especially advances in science of artificial intelligence and automation. Cabitza, F. et al, for example, discussed Marx’s concept of “General Intellect” and its application of de-individualization of artificial intelligence (Federico Cabitza, 2025). Sidorkin studied how Marx’s theory of alienation implies that artificial intelligence will not become oppressor, but rather the liberation of society(Sidorkin, 2025). In this article, we will focus on another work that, in our opinion, provide us a different insight in their own way.

First published in 2019 under the name *Marx und die Roboter: Vernetzte Produktion, Künstliche Intelligenz und lebendige Arbeit* by Karl Dietz Verlag Berlin, *Marx and the Robots: Networked production, AI, and Living labor* continued to have an English translation by Jan-Peter Herrmann and Nivene Raafat and this version was published by Pluto Press in 2022. The work follows a structure and represented chapters with different authors. Although being written by different people, these chapters have a strict connection based on logical representation to the point that people can have an impression of an individual written this work. This is what ensure the consistency of arguments in this book despite being written by different authors.

All chapters in the book are divided based on the themes of four part as the following: “*Productive Power Between Revolution and Continuity*”; “*Robots in the Factory: Vision and Reality*”; “*Digital Work and Networked Production*”; “*Platform Capitalism under Scrutiny*”.

There was one time this work was reviewed in 2024 by Yanling Zhu(Zhu, 2024). Today, in this situation, however, looking back to 2022, the first time the English version of *Marx and the Robots: Networked production, AI, and Living labor* published, its message of questioning the present – “Is it really different this time?” - has a different impact and new contributions to the discourse, just like its “spectre of Marx”. Three years have been passed since then, does the work have any relevance for the recent discoure?

For this review, we discovered four themes that the book wants us to follow and understand as the new approach to the discourse.

### **A Critique of Techno-Fetishism**

The first theme is the critique of Techno-Fetishism. This theme, while represented throughout the book, is mostly discussed in the first part of the book: “*Productive Power Between Revolution and Continuity*”. In this part, chapters of the book focus on the study of a Marxist framework of modern capitalism. They argued that, to against effectively the negative effect of modern capitalist, especially the effect of the sector of technological capitalist with technologies as their main weapon of violate human rights and controlling the economy through application of modern technologies like artificial intelligence and automation mainly, we must first focus on changing the foundation of their ideology, namely, the scientific approach that this sector is providing the studies of social sciences and humanites, and this approach has a name: Techno – Fetishism. In the past and especially, in the recent years, scholars from social sciences like sociology have been taken over by the illusional marvelous of technologies and have tried to apply a problematic approach: focus on the essence and the technical aspect of the recent technologies like to

study the “agency” of artificial intelligence (Jones & Bergen, 2025). Authors of these chapters argued for different aspects of this framework, but the most clarified approach comes from the first chapter “*Voracious Appetite for Surplus Labour*’ - *Understanding the digital revolution through Marx*” by Elena Louisa Lange. She argues that the reason this approach is problematic is that its subject is not based on the actual subject of the discussion: *the society itself*. This is why Marxist understanding is needed, because the critique is not on artificial intelligence, but must be on the capitalist society and its problems. Marxist approach showed that this techno-fetishist approach is not new, rather, it is based on the very logic of capitalist production, the fetishism of material that humans created, yet seemingly exist outside of us and controls us like commodities and money. By based on Marxist approach of studying the society, it is also against the very foundation of Techno – Fetishist ideology by showing the fundamental flaw of this ideology itself. Marxist’s theory of understanding the logic of capitalism shows that the main motivation of the production of capitalism is the perpetuated cycle of valorisation of capital. However, continuing the ideology of Techno-Fetishism with the belief that technologies create value, capitalism itself has activated their inevitable self – destruction since robots and any type of technologies can valorise themselves. Hence, by changing the scientific landscape based on Marx’s theory, we may find out how the crisis of capitalism nowadays is based on its own foundation recently – Techno – Fetishism.

### **Techno-Futurist Utopia**

The second theme that the book has is the Utopia of Techno – Futurist. This theme is presented mostly on the second part of the book: “*Robots in the Factory: Vision and Reality*”. This theme is, to be precise, another critique of this part’s authors of its chapter toward the Techno – Fetishism in the first part. However, this time the authors are focus on another aspect of this dream: the futuristic approach of these visions. Their main subject is the arguments made by the representatives of this Fetishism, the Futurists. According to the authors, for recent years, the futurists have been the voices of the idea that, the future belongs to technologies, the application of artificial intelligence and the occurring of automation will just be the matter of time and we should focus on a plan to study these phenomenons. Their appearances are so widely recognized to the point that in the first chapter of this book – “Automation: Is It Really Different This Time?” – author Judy Wajcman gives us the formula of nearly any conferences about this type of discussion:

“A few humanlike robotic heads, often with female nomenclature, are displayed and we are encouraged to interact with them for the wow factor. Then a panel of geeks tells us, the lay audience, about their amazing advances, and how close they are to passing the Turing test (making interaction with social robots indistinguishable from human interaction). This is followed by some economists estimating the dire consequences of advanced technology for job prospects. Finally, a few futurists are also included, some

even from the so-called Singularity University. I naively asked one of them where this university was based and was told ‘it isn’t really a university’! *It’s a state of mind, man*” (Wajcman, 2022)

It clearly shows that the futurists, whether they belong to optimistic or pessimistic camp, have contributed to the fame of artificial intelligence in recent years. Their arguments have a same idea: it is a vivid picture of how technologies with its universal application will have effects on social system and the worldview of human in general, therefore we should draw out a plan to navigate this phenomenon based solely on how to use artificial intelligence. But the authors of this part have challenged this notion from the futurists. Based on studying the practice of these applications in industry (Kim Moody’s chapter and Sabine Pfeiffer’s chapter) and agriculture (Franza Drechsel and Kristina Dietz’s chapter), the authors argue for a statement: the application of technologies is *not universal* like the futurists believe. In fact, the application *has been much slower* than we imagine. This statement is not to refute the impact of technologies, in fact, it is *a defense* for technologies. Because it points out the mistake of the futurists’s belief: the technologies do not have effect of man’s lives, but the subject of its application - social system - does. It is a critique of how capitalism with its own logic, have enhanced the negative application of technologies on society.

### **Networks – New Tool for Controlling**

The third theme is to argue that the technological networks is the new tool for controlling the employees by the capitalists. This theme is mostly discussed in the third part of this book: *“Digital Work and Networked Production”*. The authors of this part argue that capital, as the lifeblood of capitalist production, is vital for any business. However, in this book, the concept of capital is no longer confined to monetary resources or production chains like in classical capitalism. The author emphasizes that modern capital includes individuals in society—every person with a smartphone can now be considered part of capital. A new form of capital has emerged: personal data and information. Capital increasingly views information as a significant resource. Workers are becoming dependent on the platforms provided to them, leading to a crisis in privacy rights.

The model of user-generated content (UGC) is a prime example today. Billions of people worldwide are tied into the process of valuing capital, directly or indirectly laboring for capital through the data they provide. This is most evident in current AI applications. In reality, AI and robots will not completely replace all jobs, as exaggerated by media predictions. Although the nature of labor changes, new jobs continue to emerge, showing a shift rather than an absolute replacement of humans by machines.

The development of IoT, AI, and digital platforms has shaped new characteristics of the digital economy, changing the way production and labor are organized:

- Production without factories: Platforms like Amazon, Uber, and Airbnb do not directly own means of production but act as intermediaries, connecting supply and demand. This blurs the lines between traditional manufacturers and service providers.
- Non-traditional labor: Workers are no longer bound to fixed factories or offices. Instead, they can flexibly take on various jobs, from being ride-hailing drivers to content creators.

These changes create a "networked" economy, where companies, workers, consumers, and data are interconnected, forming a new economic ecosystem. The concept of "networked" is emphasized in the book's title, reflecting a Marxist approach in the current digital context. This raises questions about changes in production relations, modes of production, and the impact of robots and automation. To understand the essence of these transformations, it is necessary to analyze them within interconnected socio-economic relationships rather than examining each factor individually.

### **Challenges For Platform Capitalism**

The final theme in this book is the challenges for Platform Capitalism created by the application of technologies itself. This part is particularly focus on how the traditional method of manufacture and management has been outdated by the advances of technologies itself. The first chapter - "*Old Power in Digital Garb?*" by Christine Gerber - is focus on how the Taylorism – the philosophy of management in industrial capitalist production in 20th century – is challenged by technologies. The second chapter "*The Machine System of the Twenty-first Century?: On the subsumption of communication by digital platform technologies*" by Felix Gnisa focus on the study of how the digital platform capitalism is different from its predecessors in the communication of sectors which leads to new method of manufacturing. The third chapter "*Artificial Intelligence as the Latest Machine of Digital Capitalism – For Now*" by Timo Daum is a study of how AI and its technical aspects have effects on the production, mostly on the technical side, which leads to marketisation of AI, this is clearly a prophecy. The final chapter of the part as the final chapter of this book is "Forces and Relations of Control: On the possibility of sustainable and democratic economic planning in the digital age" written by Georg Jochum and Simon Schaupp is a study on how to apply the technologies properly, namely, to against capitalist production by democratisation of work.

## Conclusion

Here are the themes of the that we believe *Marx and the Robots: Networked production, AI, and Living labor* contains in its content: An unique approach, and a critique of the futurists discourse, the study of how technologies have become a new way of controlling and despite all of this, how technologies will challenge capitalism itself and force this system to change. It is no deny that this work has flaws in it since it is a work from 2022. This book should be and in some cases, must be, a material that anyone interested in Marx's theory and its applications in modern day can read. And at the end of the day, the answers for the questions that the authors of this book presented depend on us: "Is it really different this time?" and "How can we make AI work for society? (Gill, 1986, 2016)."

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