

In the AI of the Beholder: Artificial Intelligence in its Capitalist Context

Memet Uludağ

There are many readily available definitions of Artificial Intelligence (AI). A simple Google search will provide endless results ranging from the deeply technical and scientific, to descriptions in more understandable language. From TV ads to academia, AI has suddenly become a major talking point. Since the launch of OpenAI's ChatGPT or Google's Bard, it has also taken the world of popular culture by storm. But AI is not new. The concept, science and technology of AI have been evolving since the 1950s. Hollywood movies have played their part in popularising the '*fantastic*' world of AI, as has the mainstream media.

This article looks at the historical context around technological advancement and tries to take stock of some of the hype around it. Will Artificial Intelligence be the game changer it is being heralded as? To what extent will it change our societies? How will it affect workers and work practices? How will it affect people's lives? None of these questions can be answered definitively, of course, but with so much written on the subject, this article is meant to give readers an introduction to AI in its essentials.

The Marxist Lens

From a Marxist perspective, AI represents a complex and multifaceted development in the realm of technology and capitalism. Marxism is a socio-economic and political theory that emphasises the role of class struggle and the dynamics of capitalism in shaping society. When examining AI through this lens, several key considerations come to the forefront.

Marxists argue that AI, as a product of advanced capitalism, is fundamentally shaped by the profit motive and the pursuit of capital accumulation. The development and deployment of AI technologies are primarily driven by the capitalist class, who seek to increase productivity, reduce labour costs, and expand their control over the means of production. In this context, AI can be seen as a tool that reinforces and exacerbates existing class divisions, as those who own and control the technology benefit disproportionately from its advancements.

Furthermore, Marxists contend that AI has the potential to disrupt labour markets and lead to the displacement of human workers, particularly in industries where automation can replace human tasks. This can result in mass unemployment, economic inequality, and the exploitation of labour, as workers are forced to adapt to precarious and low paying jobs, or face joblessness in the face of technological advancements.

From a Marxist perspective, the benefits of AI are often concentrated in the hands of the bourgeoisie (capitalist class) while the working class may experience further alienation and exploitation. Therefore, the development and application of AI technology should be viewed through a critical lens, with an emphasis on addressing the social and economic

implications of AI in the context of class struggle.

In summary, AI, when analysed from a Marxist perspective, is seen as a product of capitalist dynamics, which can exacerbate class divisions, economic inequality, and the exploitation of labour. A Marxist analysis of AI underscores the importance of considering its societal impact and how it can be harnessed for the benefit of the broader working class rather than serving the interests of the capitalist elite.

The Capitalist Lens

From a capitalist perspective, AI is regarded as a groundbreaking and transformative force that drives economic growth, innovation, and prosperity. Capitalism is an economic and political system that places a strong emphasis on private ownership, competition, and the pursuit of profit. When examining AI through this lens, several key considerations emerge.

Capitalists view AI as a catalyst for efficiency and productivity. AI technologies can automate repetitive tasks, enhance decision making processes, and optimise resource allocation, which, in turn, can lead to higher profitability for businesses. The ability of AI to process vast amounts of data and provide valuable insights is seen

as a strategic advantage that allows companies to gain a competitive edge in the global marketplace.

Moreover, AI is seen as a tool for job creation rather than solely displacement. Capitalists argue that while certain manual and routine jobs may be automated, AI also creates new opportunities for highly skilled workers in AI development, data analysis, and related fields. This, they contend, can lead to overall economic growth, offering a chance for individuals to upskill and adapt to the changing job landscape.

From a capitalist perspective, AI innovation is encouraged and driven by the profit motive, competition, and market forces. The incentives for companies to invest in AI research and development are rooted in the potential for significant financial returns and the ability to meet consumer demands with cutting edge products and services. This perspective emphasises the importance of fostering a business friendly environment that enables companies to invest in AI technology without excessive regulation or obstacles.

In summary, AI, when analysed from a capitalist perspective, is seen as a driver of economic growth, innovation, and job creation. It is viewed as a powerful tool for enhancing productivity and competitiveness in a global market, with

a strong focus on the profit motive and private sector incentives for AI development. This perspective underscores the importance of encouraging and facilitating AI driven entrepreneurship and investment as a means to promote economic prosperity.

The anodyne nature of ChatGPT

Here, I must admit, that the paragraphs above are not written by me. I've asked ChatGPT to provide short intros on AI from a Marxist and a capitalist perspective. That's what it came up with. One could argue that it has been well trained on Marxism 101 and gathered enough data to present some aspects of these opposing world views. One can certainly see some of the key phrases of Marxist and capitalist terminology, in this otherwise not exceptionally intelligent or exciting output. The real difficulty emerged when I challenged ChatGPT on 'which perspective is serving the greater good of humanity, therefore, which is the 'better' one'. It gave me rather a pointless response by saying that,

The question of whether the Marxist or capitalist perspective on AI is better is a matter of personal and ideological beliefs. It's essential to understand that both perspectives have their strengths and weaknesses, and what is 'better' depends on one's

values and the specific context in which AI is being discussed.

It added that,

The ‘better’ perspective depends on your values and the specific goals you aim to achieve. In practice, many societies seek to strike a balance between these perspectives by implementing policies and regulations that encourage innovation and economic growth while also addressing social and ethical concerns related to AI. Ultimately, the question of which perspective is better is a matter of ongoing debate, and the optimal approach likely lies in a synthesis of ideas from different perspectives to create a framework that fosters AI's benefits while mitigating its potential drawbacks. It's crucial to consider the specific context, goals, and values when evaluating these perspectives in real world applications.

Notice the summary conclusions (below) ChatGPT has produced after insisting that ‘better’ relies on values and ideology. Basically, it said,

- In practice, many societies seek to strike a balance between these perspectives by implementing policies and regulations that

encourage innovation and economic growth while also addressing social and ethical concerns related to AI.

- The optimal approach likely lies in a synthesis of ideas from different perspectives to create a framework that fosters AI's benefits while mitigating its potential drawbacks.

The seemingly intelligent, objective, and factual AI has concluded that we should merge the interests of capital with the interests of the working class -all the while ensuring that AI continues to be centrally utilised.

Its big data is telling us that ‘AI innovation’, driven by the profit motive in a business-friendly environment can be blended with the wellbeing of the working class. Bring on Labour Party Socialism! When further asked whether it had any ideological or moral stand on the conclusions it produced, it responded by saying,

In the case of comparing Marxist and capitalist perspectives on AI, my aim was to provide an objective overview of the key points from each perspective to assist you in understanding the range of viewpoints. I do not endorse or promote any particular ideology, philosophy, or moral values. My

responses are neutral and based on the information available up to my knowledge cutoff date in January 2022.

But ChatGPT, does make moral and political judgements. Its conclusions are not independent of the ‘dominant ideas’ of the ‘dominant class’ that owns AI technology and educates it with big data. It just summarised what every liberal pro-capitalist concludes on AI – that it should be created in a private environment mindful of the wider social impacts. Our conversation went on until I realised that the responses were becoming increasingly repetitive.

Intelligence versus ‘Big Data’

In an opinion piece titled “The False Promise of ChatGPT” in the *New York Times*, Noam Chomsky wrote,

The human mind is not, like ChatGPT and its ilk, a lumbering statistical engine for pattern matching, gorging on hundreds of terabytes of data and extrapolating the most likely conversational response or most probable answer to a scientific question. On the contrary, the human mind is a surprisingly efficient and even elegant system that operates with small amounts of information; it seeks not to infer brute correlations

among data points but to create explanations.¹

Looking at AI from a ‘human intelligence and learning’ point of view, Chomsky takes a generally dismissive attitude. Considering my own conversations with ChatGPT, the outputs were impressive, but not necessarily intelligent when judged against the creativity of a human mind. To get the outputs from ChatGPT, and more importantly, to interpret these statements beyond their mere factuality; to be able to draw conclusions in real life, a human intelligence was needed. AI learns from human intelligence and the knowledge produced by humans. It can’t replace that creativity. But, as in every scientific and technological advancement, AI could be used to take away the burden of repetitive, non-creative work and the hardship and stress that comes with it. It could free human beings from long and boring work. It could give workers more opportunity to be creative. Just think of some of the positive applications. AI can

- Be used to advance healthcare services through disease diagnosis and early detection, drug development and aiding critical medical procedures.
- Assist academic research and education by providing new and exciting educational tools.

- Play a huge role in climate modelling and public transport planning.
- Provide accessibility through assistive technology – AI powered devices and applications can assist people with disabilities by providing speech recognition, image descriptions, and other tools.
- Help with language translation to eliminate communication barriers.
- Provide creative tools for artists, as well as simulation tools for engineering.

But, as with every advance in technology under capitalism, we will not see billions invested in AI for greater public services or the advancement of human development. Instead, it will be used to drive market competition and profitability. In this context, AI has already been deployed,

- In a dangerous agenda of ‘predictive policing’ which greatly threatens human rights and freedoms.
- To exacerbate racism by relying on data sets that are themselves created in racist conditions.
- To exacerbate inequality by ensuring that access to medical equipment and medical procedures are often distributed

based on one’s income and one’s citizenship.

- To heighten the dangers of imperialism through autonomous weapons, military simulations, military applications etc.
- To threaten to our academic and artistic creativity.

AI under capitalism clearly poses a threat to workers, while AI under imperialism can become a mass killing machine.

Automation without Emancipation

Robots, automation, advanced software, and computing power in many sectors, from heavy industries to finance, from healthcare to services are not new. From the beginning of the 20th century, the speed of technological advancements has quickened, however, with massive developments in computing technology from the late 20th century onwards. Comparing the level of automation in the 1980s to what we see today, we could describe the pace of technological innovation as mind-blowing. The computing power of a large mainframe 20 years ago, fits into a smart phone today. Cloud technologies coupled with super-fast computing power have genuinely transformed the world of AI and automation. Approximately 347.3 billion emails are sent globally each day. An estimated 100 billion WhatsApp

messages appear on our smart phones daily. There are 2.95 billion monthly active users on Facebook. Twitter has 368 million monthly active users worldwide. 1.8 billion people use Gmail. TikTok has 1 billion monthly users. Instagram is expected to hit 2.5 billion users by the end of 2023. All of these platforms are highly automated, integrated and use advanced software technologies such as machine learning and AI. You can book a holiday from your Xbox console while playing a flight simulator game. Renewing your insurance policy is a matter of a few clicks. In some countries, your GP sends a digital code to your pharmacist, and you scan a QCR code with your phone to purchase your medicine.

Yet with all of this innovation, the cost of medical care and medicine is not reducing. There are now apps that claim to bioanalyse your daily life cycle and make food/rest/physical activity recommendations to keep you fit and healthy. But the cost of food is not reducing either. Instead, food prices have rocketed, and world hunger is still a massive problem. AI has created a growing debate in the academy and the arts, but it is still not eradicating basic challenges around food, water, and shelter for the world's poorest people. Some of the greatest minds in mathematics, computer and data science are behind the developments in AI. But it

is not these figures that are at the forefront of the AI debate, but voices for marketing and business opportunities.

What does AI mean for Capital and Labour?

In this context, a simple question emerges: What does AI mean for capital and labour? In a wider sense, what does it mean for society in general? The answer to these questions is more complex than just a simple 'good' or 'bad'. Nor it is an answer that can be provided in isolation from the social and class conditions we live in today. Given the current differences in wealth and power, it is not surprising that capitalist firms are investing vast sums into AI research and technology to give them a greater understanding of the opportunities and the utilisation of AI. The most important discussions are also being dominated by capital, while trade unions and labour organisations are far behind in terms of their understanding and not fully up to speed in developing strategies or leading discussions in the interest of the working class they represent. But they need to start catching up.

According to the European Trade Union Confederation (ETUC), the recently drafted European Union (EU) Artificial Intelligence Act contains so little on workers' rights that a whole new piece of legislation will be required. The ETUC

assessment is that the EU parliament failed to close a loophole which leaves workers' safety and fundamental rights at risk and that this will need to be closed if AI is to be rolled out successfully. Unfortunately, beyond the top layers of the unions, there is not much engagement with the members concerned. The unions will have to learn from their members on the ground in a world where they have demobilised them for decades. Meanwhile, AI is becoming a household term very fast, and many working people are starting to worry about its potential implications. A 2023 Ipsos survey conducted in 31 countries found that, on average, 52 percent are nervous about products and services that use AI.² Some of the reasons listed were, lack of understanding, mixed feelings and increased nervousness, geographical differences, expected impacts on lives and jobs and the fears that come with it. But it is not all one way traffic. A 2023 Pew Research Centre report estimates that 1 percent of all U.S. jobs have high exposure to AI.³ But despite this, many of the workers in the most exposed industries still felt that AI will help them more than hurting them personally. For instance, 32 percent of workers in information and technology said AI will help them more, compared with 11 percent who said it will hurt them more. These responses may be down to cultural differences, but it is also likely to do with the fact that there will be contradictory

impacts – people may benefit from AI in one part of their lives while being threatened by it in another. There is just so much to drill into when it comes to AI in terms of the social-political and economic consequences. Furthermore, for socialists, developing a sophisticated class analysis will be essential.

An important aspect here is the international imperialist competition to control the benefits of AI. Hi-tech industries are in a race to dominate information and data opportunities, while global retail, services and financial corporations are in a race to dominate markets using AI solutions. There is also a significant race between the U.S. and China to dominate AI globally. Recently, China has relaxed its AI rules and issued new regulations around the public use and industrial developments associated with AI. In line with its wider strategy, China wants to control AI in its sphere of influence, while the US has put pressure on its allies to avoid Chinese based technologies. New measures signed by the Biden administration target investments in semiconductors, microelectronics, quantum computing and certain AI capabilities. They also require outbound U.S. investors to provide notifications to the Treasury Department to track investment in rival technologies.⁴ AI is thus a technology battleground among the global capitalist

and imperialist powers, and this pushes it further from the interests of workers.

Will AI cause job losses?

This is not an easy question. It depends. Did computerisation and automation cause job losses? Yes, and no! Take a simple example: There are more self-checkout counters than human attended counters in most supermarkets around the country. There are more people buying tickets and checking in online for their flights than before. But with the exceptions of major crises of capitalism, such as the global banking crisis of 2008-09 or the Covid pandemic, the rate of employment isn't falling.⁵ Maybe the question is not as black and white as, will AI cause job losses? But more like, how will AI impact jobs and workers? Will certain jobs disappear while others emerge? Will certain sectors be more impacted than others? What might the impact be? If AI increasingly reduces workers in jobs that are automated, will it also develop new areas of employment managing AI platforms and big data? Understanding facts on world population dynamics are useful while thinking about the impacts of technology on employment.⁶ Since the 1990s, technology and automation have been growing faster than ever. We are in a hyperdrive period for technology development even if the question of technology vs job losses has been a long

running one. Its modern version first emerged in car manufacturing plants, travel and finance sectors, sales, and marketing sectors back in the 1980's. With AI this question has certainly taken on a new significance, but world population continues to grow, as does the numbers in employment and the rates of technological innovation.⁷ The same seems true in Ireland, where the number of people in employment rose to a record of 2,574,000 in the final quarter of 2022, an increase of 2.7pc over the previous year, despite the advancements in automation and self-service driven business models developed over the last decade.⁸

Understanding that AI is increasingly built into the logic of capitalism makes it important to understand what it might mean for the fundamental relations between workers and employers. One thing for sure, is that capitalist firms are in a competitive race to make the best use of AI for efficiencies and higher profits. But where the world of AI ultimately goes will depend on much more complex forces than just capital's race for technology. Perhaps most importantly, it will depend on how the working classes and their organisations respond? Will the race for technology exacerbate capitalist crises and exploitation or will it force workers into action? One way to begin to think about these dynamics is through the prism of the Egyptian Revolution.

Back in 2012, I reviewed Paul Mason's book, "Why It's Kicking Off Everywhere: The New Global Revolutions" – which tried to explain the 2011 Arab Spring revolutions, with a focus on Egypt. The review concluded that "it is well written and has undoubtedly been very influential, but it shares a key weakness of all but the very best journalism, namely it tends to be superficial and impressionistic in its analysis. It picks up on and elaborates two of the most common 'journalistic' explanations of the wave of revolt: 1) that it is a generational thing; 2) that its other main driver is the use of social media." But serious analysis understood that technology was a useful tool within the revolt but never its main driver. The revolt happened partly because the Egyptian masses had been held down by a murderous regime for so long and partly because they gained confidence from the events in Tunisia, but also the painstaking work of activists on the ground and in the workplaces. Technology allowed activists to communicate with each other, but it didn't create the class dynamics or the balance of class forces.

This tells us that the class struggle will ultimately determine how technology is used. And if capitalist history is anything to go by, the introduction of AI machines will likely create the same antagonisms that existed when the first machines

began to dominate during the industrial revolution. AI assumes Marx hasn't written extensively on the subject, but in Chapter 15 of Capital Volume 1: 'Machinery and Modern Industry', and especially the section on 'The Strife Between Workman and Machine' he delved in great detail into the class dynamics of the "machine". We are currently in a period of major AI hype, but beyond the most prominent commentators who fetishise or hate AI, are the real social forces that Marx identified over 150 years ago, and it will be these forces that will set the course for AI in the future. We are expected to think that AI is a fundamental game changer. So much so, it will create a new world. Will it really? How? Under what circumstances? Perhaps most importantly, will AI invalidate the economic findings in the annual Oxfam reports that show capital taking the lion's share of all new technological benefits. Some headlines from the 2023 Oxfam 'Survival of the Richest Report' are outlined below:

- The richest 1 percent grabbed nearly two thirds of all new wealth - worth \$42 trillion - created since 2020, almost twice as much as the bottom 99 percent of the world's population.
- In 2019, Oxfam found that the world's 26 richest people owned

as much as the poorest 50 percent of the world's population.

- 5 years before that, in 2014, the world's 85 richest people had same wealth as the bottom 50 percent.⁹

Final Thoughts

The 21st century will undoubtedly bring further advancements in science and technology and provided we can stop climate change and its associated disasters; these will continue to both pose dangers and provide benefits to humanity. AI will almost certainly bring greater productivity, faster profits, and competitive advantages to capital. It will also have profound impacts on workers and society, but it is too early to make strong predictions. What we do know, however, is that what will shape the future of humanity will not be simply technology and high tech advances but the social class forces that have been at conflict with each other since the dawn of capitalism. AI brings new concerns and opportunities but the fundamentals of the class divisions, and all that comes with it, have not changed. What is more, horrors such as global inequality, imperialist conflicts, wars, exploitation, and alienation are deepening.

The debate on AI must and will continue around fundamental matters such as labour and automation, exploitation,

workers' rights; ownership and control; public ownership and regulation; climate change; just transition and the social-political impacts of technology. Underlying these debates will be the struggles of workers to live without exploitation – to turn the new technologies into tools of liberation. Isn't it great that we can book a holiday on our console or make transactions on a website. Isn't it horrible, that with all the advancement in technology, intelligence and wealth, there are still hundreds of millions of people that can't have a home, never mind playing Xbox or booking their next holiday.

And for millions of others, climate related displacement is a reality, not in some distant future, but today. In a society free from the chains of capitalism, in a socialist world, where all resources and human knowledge are shared democratically, where workers are not alienated and exploited and where the society is organised in a way that is 'from each according to his ability, to each according to his needs', technology would not be tool for the profit interests of the ruling class but an opportunity for advancing living conditions for all. In other words, **AI for People, Not for Profit**

Figure 1: Historical Employment Rates – Ireland (Percent)

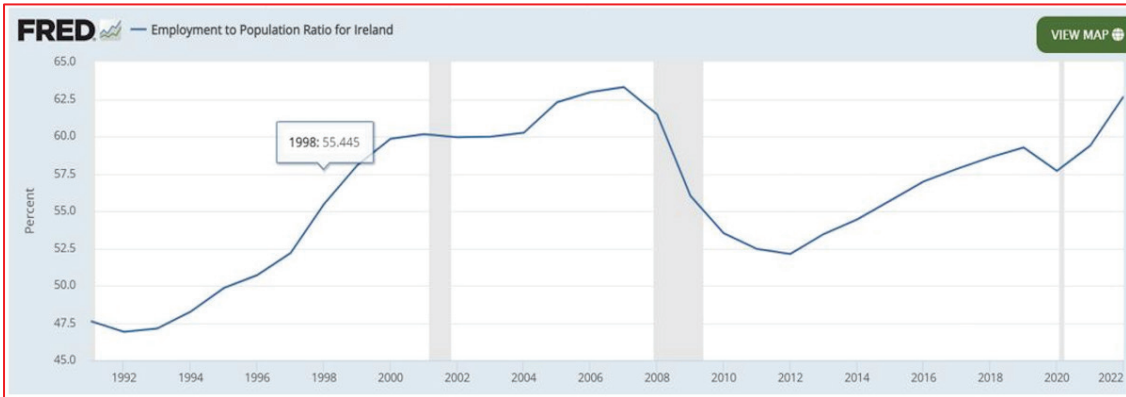


Figure 2: Number of People Employed Globally (Billion)

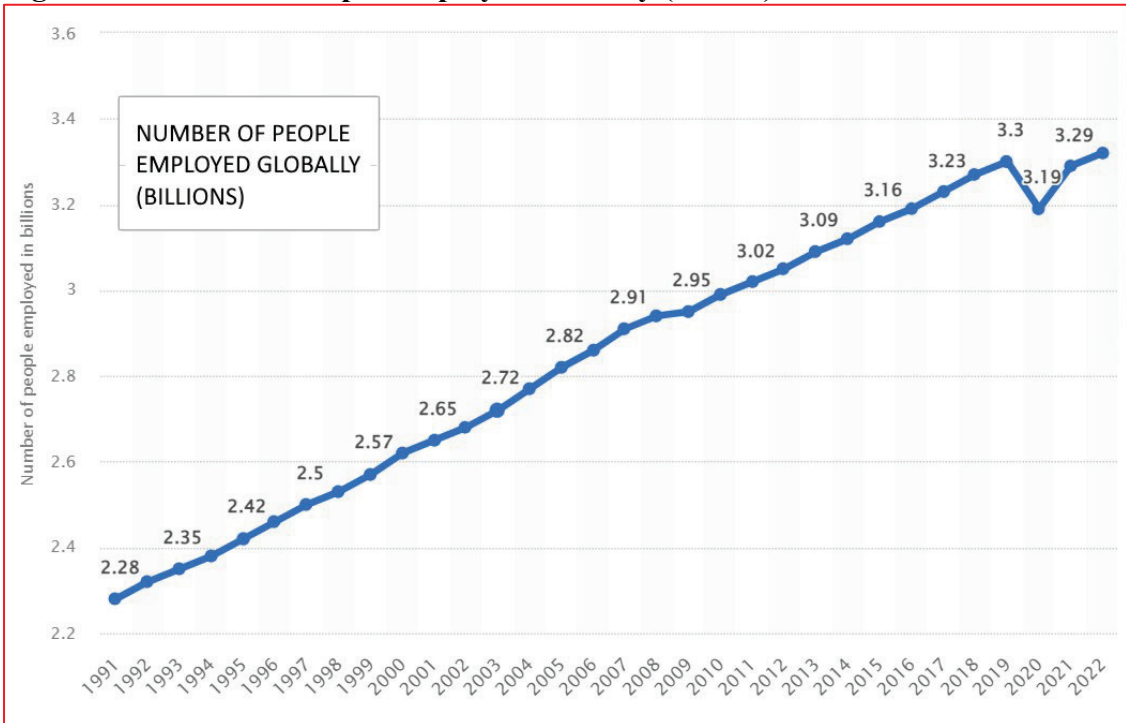


Figure 3: World Population and Employment Numbers (Billion/%)

Year	Employment	World Population	Population Change	Employment Change	% Working
1991	2.28	5.41	1.69%		42.17%
1992	2.32	5.49	1.60%	1.75%	42.24%
1993	2.35	5.58	1.54%	1.29%	42.13%
1994	2.38	5.66	1.49%	1.28%	42.04%
1995	2.42	5.74	1.46%	1.68%	42.14%
1996	2.46	5.83	1.43%	1.65%	42.23%
1997	2.5	5.91	1.40%	1.63%	42.33%
1998	2.53	5.99	1.37%	1.20%	42.26%
1999	2.57	6.07	1.34%	1.58%	42.36%
2000	2.6	6.15	1.34%	1.17%	42.28%
2001	2.65	6.23	1.33%	1.92%	42.53%
2002	2.68	6.31	1.31%	1.13%	42.46%
2003	2.72	6.39	1.29%	1.49%	42.54%
2004	2.77	6.48	1.28%	1.84%	42.77%
2005	2.82	6.56	1.27%	1.81%	43.00%
2006	2.86	6.64	1.27%	1.42%	43.06%
2007	2.91	6.73	1.27%	1.75%	43.27%
2008	2.94	6.81	1.27%	1.03%	43.16%
2009	2.95	6.90	1.27%	0.34%	42.76%
2010	2.99	6.99	1.27%	1.36%	42.80%
2011	3.02	7.07	1.25%	1.00%	42.70%
2012	3.05	7.16	1.25%	0.99%	42.59%
2013	3.09	7.25	1.24%	1.31%	42.62%
2014	3.12	7.34	1.22%	0.97%	42.51%
2015	3.16	7.43	1.19%	1.28%	42.55%
2016	3.19	7.51	1.17%	0.95%	42.46%
2017	3.23	7.60	1.15%	1.25%	42.50%
2018	3.27	7.68	1.10%	1.24%	42.56%
2019	3.3	7.76	1.06%	0.92%	42.50%
2020	3.19	7.84	0.98%	-3.33%	40.68%
2021	3.29	7.91	0.87%	3.13%	41.60%
2022	3.32	7.98	0.83%	0.91%	41.63%

Endnotes

¹ Noam Chomsky, The False Promise of ChatGPT, The New York Times, 8 March 2023.

² Global Views on A.I. 2023. A 31-Country Global Advisory Survey, July 2023, www.ipsos.com

³ Pew Research Centre. Which U.S. Workers Are More Exposed to AI on Their Jobs? www.pewresearch.org

⁴ Biden bans range of high-tech US investments in China citing national security risk. *The Guardian* 23 August 2023.

⁵ See the Appendix for more details.

⁶ I have prepared some data graphics to aid with this using official data sources from various agencies (ILO, World Bank, Statista, EU, IMF, UN). These are available in the appendix.

⁷ Ibid.

⁸ Central Statistics Office, Ireland, www.cso.ie.

⁹ Survival of the Richest, 16 January 2023, Oxfam International, www.oxfam.org.