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Technofeudalism and the Artificial Intelligence (AI) Revolution: Exploring Ways of Escaping Cloud Serfdom

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Abstract **Review Article**

Yanis Varoufakis has offered plausible evidence that the rise of tech company dominance over all aspects of social, political, economic and cultural life – and the overwhelming power of leading tech billionaires – has resulted in a post-capitalist state of affairs that he calls 'technofeudalism'. On this reading, all consumers of tech products and users of social media platforms can be regarded as 'cloud serfs', and Varoufakis outlines various ways of challenging this state of affairs. Other critics – both from within the field of artificial intelligence (AI) technology and from academia – have warned of the existential threats of contemporary developments to all aspects of social life and culture. This article analyses the key elements of the discourse – evaluating the evidence for pessimism and optimism about the AI future – before offering a conclusion informed by the idea of erring on the side of caution by highlighting the principal threats and dangers followed by some suggestions about how these might be countered by means of practical survival strategies.

Keywords: artificial Intelligence (AI), technofeudalism, cloud serfdom, escape mechanisms.

1. The AI Revolution

Although artificial intelligence (AI) systems have been with us for decades – in phones, cars, banking, medicine, and the like – it was the appearance of the publicly accessible Chat GPT and similar applications and tools in November 2022 that has stimulated such intense and unrelenting academic and popular interest. Much of the interest and debate has been located within academic disciplines since, given their natural responsibilities for educational development within their various fields (Hyland, 2023), the AI applications have had a direct impact on research, teaching and learning at all levels. The *Centre for Security and Emerging Technology* website lists 260 million academic articles on AI published up to 2025 (Our World in Data, 2025). Debate tends to be polarised between accounts pointing to the dangers and existential risks associated with the new systems and those explaining the tremendous benefits of AI in all spheres of human activity.

Renaud Foucart (2023) offers a representative illustration in his comment that:

AI is expected to affect every aspect of our lives – from healthcare, to education, to what we look at and listen to, and even how well we write. But AI also generates a lot of fear, often revolving around a god-

like computer becoming smarter than us, or the risk that a machine tasked with an innocuous task may inadvertently destroy humanity. More pragmatically, people often wonder if AI will make them redundant (p.1)

In the last few years the promise and problems, threats and opportunities, analysis of AI trends has been explored relentlessly and ad nauseam by academics, politicians and social commentators and there is now a huge body of work on the main issues. The polarities between optimists and pessimists on current developments are vast and striking. On the optimistic end of the spectrum there is the research on medicine and health care undertaken by the *World Economic Forum* (2025) which reported a wide range of AI benefits. In a similar vein, in relation to the central topic of sustainable development, there are optimistic claims about the potential of AI in alleviating global warming, pollution and the degradation of the planet (Stern et al, 2025).

On the negative, pessimistic end of the AI spectrum we encounter the growing evidence that the energy-hungry expansion of massive data centres required by AI development will cause an exponential increase in greenhouse gas emissions (Bailey, 2025). Other similar studies, have pointed to the likelihood of large job losses as a result of introducing AI applications into the workplace (Davenport & Srinivasan, 2026). In order to make sense of such vast polarities it would be useful to examine the close analysis of these issues in the recent work of Emily Bender and Alex Hanna (2025) but, before examining this and similar critical commentaries, it is worth looking at some philosophical issues surrounding what AI actually is.

2. What is AI? Some Philosophical Perspectives

The IBM website offers the following definition:

Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy. Applications and devices equipped with AI can see and identify objects. They can understand and respond to human language. They can learn from new information and experience. They can make detailed recommendations to users and experts. They can act independently, replacing the need for human intelligence or intervention (2024, p.1)

There are quite a few key terms in this definition – in particular the claims about learning, understanding, creativity and the links with human intelligence – which are highly contentious and call for closer examination.

Bender & Hanna (2025) argue that AI is essentially a 'marketing term' and go on to suggest that the term: Doesn't refer to a coherent set of technologies. Instead the phrase "artificial intelligence" is deployed when the people building or selling a particular set of technologies will profit from getting others to believe that their technology is similar to humans, able to do things that, in fact, intrinsically require human judgment, perception or creativity (p.5).

They go on to outline a range of disparate processes – such as decision-making, classification, recommendation, transcription/translation and text/image generation – which tend to be lumped together and marketed as intelligent technology. This is followed by an extensive analysis of the evolution of what they label 'AI hype' and their sceptical and critical conclusion is that: Neither large language models (LLMs) nor anything else being sold as "AI" is conscious, sentient, or able to function as an independent, thinking entity (ibid.,p.21).

After a detailed analysis and explanation of how LLMs such as Chat GPT and similar tools work – through 'training' by trawling through and 'scraping' vast datasets of information and graphics – they conclude that the most recent AI applications are best described as 'synthetic text-extruding machines' by which: Like an industrial process, language corpora are forced through complicated machinery to produce a product that looks like communicative language, but without any intent or thinking mind behind it (ibid.,p.30).

Similar perspectives are offered, for example by, Philip Goff (2023) who argues forcefully that 'ChatGPT can't think – consciousness is something entirely different to today's AI'(p.1), and Noam

Chomsky (2023) who has commented on the 'false promise of ChatGPT' arguing that – although such applications are 'marvels of machine learning' – the science of linguistics and epistemology indicate that 'they differ profoundly from how humans reason and use language' (p.14).

Since such arguments run counter to the claims of AI proponents and enthusiasts such as Nick Bostrom (2014), it is worth examining their foundations in philosophical discourse. When Alan Turing famously asked the question "Can machines think?" (1950) in his celebrated pioneering paper, the implicit assumption was that he was asking whether they might be able to think like humans. However, although there is a fair degree of evidence that contemporary AI tools like Chat GPT 5 could pass the so-called Turing test by simulating human thought, is this sufficient to ascribe thinking, reasoning or consciousness to AI? For critics such as Goff and Chomsky, the answer is obviously not, and the work in this area by Andrzej Porębski & Jakub Figura (2025) goes some way to explain why.

Our notions of thinking, reasoning, intelligence, consciousness, and cognate traits were obviously developed in relation to our own human capabilities in these areas and remain embedded in this domain. Although there is a valid charge of anthropomorphism or anthropocentric thinking labelled 'humaniqueness' by Jeremy Lent (2021, p.50) to be answered here – after all we must acknowledge that AI tools and apps are not human even though we might assign non-human personhood to some of them (Hyland, 2023a) – we obviously and understandably find it difficult to escape from the limits of our human capacities for thinking and understanding. John Searle's famous 'Chinese Room' (2004) thought experiment helps to provide a context to make sense of all this.

Zhuoya Tian (2024) has examined the argument in some detail, and explains how Searle places himself in this imaginary room in which "questions" in Chinese are inputted and his "answers" are then sent out. All this is described as follows:

Specifically, the room contains a set of Chinese symbols and a corresponding English rulebook. Searle, who can only read English, manipulates the incoming Chinese characters by following the rulebook's instructions to generate an output in a different order. He is unaware, nevertheless, that the arriving Chinese symbols constitute a Chinese inquiry and that the rearranged Chinese symbols he produces are the proper responses to that question. It would seem to an outsider that Searle comprehends the Chinese inquiry and gives the right response. However, in practice, Searle never comprehends the Chinese question; instead, he is simply manipulating symbols in accordance with the rulebook, mimicking the functioning of a computer (p.2).

We are asked to imagine that the Chinese room functions as a computer or an AI tool and the argument is that we are misled into thinking that the person in the room is a native Chinese speaker instead of someone who is simply manipulating symbols and does not understand a word of Chinese. Searle (2004) argues that the Chinese Room argument – claiming that mere computation or information-processing, no matter how complex or stunningly fast, is nothing like human capabilities – 'strikes at the heart of the strong AI project' (p.63), and he has been able to defend his position against some key philosophical objections (ibid.,pp.69-71). Tian (2024) finds the argument cogent though with the caveat that future deep machine learning might change this position. In addition, the Nobel Prize winning physicist, Sir Roger Penrose, has stated unequivocally in recent lectures that AI has been misunderstood and will never achieve human-like intelligence or consciousness (This Is World, 2025). In a similar vein, the physicist, Carlo Rovelli, has debunked the AI myth about super-intelligence and called for more human as opposed to artificial intelligence (Rajan, 2025).

What seems to matter here is – not whether AI passes the Turing Test, since it clearly does – but whether this is enough to add up to understanding, sentience, intelligence or consciousness. (It is worth mentioning here that – in a fascinatingly ironic reverse-Turing twist – it is we humans who now have to pass the Turing test to gain access to websites by ticking a box to prove we are not robots!) It does not seem relevant to stress the material, flesh and blood, or carbon-based nature of human consciousness as

against the synthetic, algorithmic, silicon or cloud-based substrate of AI applications since – at the fundamental sub-atomic level – everything is composed of quarks, leptons and electrons. But what about the embodied nature of human consciousness with its motivations and intentions developed over millennia of human evolution? Can AI applications developed over just a few years satisfy such criteria? The putative answer seems to be provisionally affirmative but only as a result of the design of codes and algorithms programmed by humans.

The crucial point here is surely that human emotions and values can only be extended metaphorically to AI tools and machines through suitable programming, and this is why Bostrom (2014, 2023) proposes a 'common good principle' to be built into all AI machine learning tools. However, as a keen proponent of super-intelligent machines and robots, he remains acutely conscious of the 'value-loading problem' (p.226) in this sphere and freely admits that 'it is not yet known how to use the value learning approach to install plausible human values' into AI (ibid.,p.241). For all such reasons, there is a general consensus around an agnostic position on the status of AI sentience, intelligence and consciousness with a large and vociferous minority opinion (such as Chomsky, Goff, Bender & Hanna mentioned earlier) favouring a sceptical perspective which denies that AI is neither sentient, conscious nor intelligent. A representative example of this latter view is provided by Porebski & Figura (2025) who assert that:

There is no such thing as conscious AI. We argue that the association between consciousness and the computer algorithms used today (primarily large language models, LLMs), as well as those that would be invented in the foreseeable future, is deeply flawed. We believe that these flawed associations arise from a lack of technical knowledge and the way several new technologies (especially LLMs) work, which can create the illusion of consciousness. Moreover, we argue that the public discourse about AI is skewed by "sci-fitisation", which involves the unsubstantiated influence of fictional content on perceptions of this technology (p.1).

However, notwithstanding any claims to sentience or consciousness, there is no denying the speed, capability and power of the current AI tools, and the fact that they are being implemented in every sphere of life – the workplace, education, medicine, the military, the law – demands that we take them seriously and present a critical stance in relation to the challenge they pose for all of us.

3. AI Perspectives: Boosters and Doomers

Bender & Hanna (2025) explore just about every aspect of recent AI trends to expose what they label as the gigantic 'AI Con'. They make a distinction between 'boosters'– tech entrepeneurs and others seeking to market AI – and 'doomers' who warn us about the threats and dangers of the current AI developments.

On the booster side the positive side benefits of using AI tools have been outlined in a vast range of areas such as business, education, health, science, transport, defence, work and just about every aspect of social life (Oneadvanced, 2025). Many of such alleged AI gains tend to be located within business and work environments within which there are claims about increases in productivity through the automation of repetitive tasks and processes, more efficient management and team working, and the acceleration of data collection and analysis. The impact of AI on education and academia in general has been far-reaching and welcomed by many educators and institutions of learning (Hyland, 2023). Staying with the optimistic interpretations, there are claims that machine learning better facilitates personalized learning, and generally supports 'the promotion of learning and wellbeing of students, teachers, and other educational stakeholders' (Bittencourt et al, 2024, p.14). In a similar vein, in relation to the central topic of sustainable development, there are optimistic claims about the potential of AI in alleviating global warming, pollution and the degradation of the planet (Stern et al, 2025).

On the doomer end of the AI spectrum it is worth considering seriously the recent critique of a wide range of discourse about AI by Bender & Hanna (2025) who point out the intriguing state of affairs in which – in what they describe as the topsy-turvy

world of 'AI hype and con' – boosters and doomers are often in the same camp. As they put it:

Scratch a doomer and find a booster…Doomerism and boosterism are supposedly diametrically opposed camps, but both see AI as inevitable and desirable (p.148).

The explanation for this surface irrationalism is to be found in the need for the big tech companies to maintain the hyperbolic publicity about the tremendous power of their AI tools. Thus, Sam Altman of Open AI (Daws, 2025) may freely admit that AI will cause substantial job losses, pose threats to national security and wreak general havoc on human communications, but he does so in a context in which AI development is said to be happily advancing from strength to strength.

Moreover, many of the more grandiose concerns expressed by doomers about the potential for super-intelligent AI robotics to destroy human civilisation are, for Bender & Hanna (2025), pure science fantasy designed to distract us from the real harms that AI is inflicting on humanity right now not in some sci-fi future. As they comment:

The danger is not from some hypothetical extinction-level event. The danger emerges from rampant financial speculation, the degradation of informational trust and environments, the normalization of data theft and exploitation, and the data harmonization systems that punish people who have the least power in our society by tracking them through pervasive policing systems. But the Doomer/Boosters would have us looking the other way from all these real harms bedazzled by their dystopian/utopian visions (pp.151-2).

3.1. Technofeudalism and its implications

It cannot be emphasized enough that all the new AI technological developments discussed above are located within a neo-liberal capitalist framework in which ever-expanding consumer spending is the key driver of algorithmic design and implementation (Monbiot & Hutchison, 2024). Just as the internet itself was initially designed by Tim Berners-Lee as an open access, free discussion platform, it was inevitable that in a capitalist economy it would be captured – much to the deep dismay of its originator (Berners-Lee, 2025) – and grossly mutated into a voracious consumerist platform so the original non-profit projects of Open AI and other companies were quickly taken over in the squalid money-making scramble to cash in on AI mania to grab as much of the profits as possible (Hassett, 2024).

Within this neo-liberal consumerist framework, the economic and social dominance of the main technological corporations has far-reaching and potentially harmful implications for the whole political, cultural and moral fabric of society. In this area, Yanis Varoufakis (2025) presents convincing evidence that the rise of tech company dominance over all aspects of social, political, economic and cultural life – and the overwhelming power of tech barons such as Elon Musk, Jeff Bezos and Mark Zuckerberg – has resulted in a post-capitalist state of affairs that he calls 'technofeudalism'. As he explains:

Markets, the medium of capitalism, have been replaced by digital trading platforms which look like, but are not, markets, and are better understood as fiefdoms. And profit, the engine of capitalism, has been replaced with its feudal predecessor: rent. Specifically, it is a form of rent that must be paid for access to those platforms and to the cloud more broadly. I call it cloud rent (p.34).

Moreover, the cloud capitalists are able to extract more profit than their more orthodox predecessors because they have absolute control over all their platforms which traders have to use to sell products. In addition, all users, all of us who click on Amazon, Facebook or any other social media platform are working for these 'cloudalists' for free by providing them with our personal data as well as our business. In this sense we are all unwitting 'cloud serfs' whether we like it or not.

Within the framework of the global and geopolitical economy, the rise of the AI tech corporations has led to a new cold war between China and the West, mainly between Chinese Big Tech and the USA Silicon Valley companies. More significantly, Varoufakis argues that Chinese Big Tech – penetrating Western culture through Tik Tok and similar plaforms – has even more sinister and far-

reaching implications for humanity than its current Western rivals. As he observes, the five big Chinese cloudalist conglomerates – Alibaba, Tencent, Baidu, Ping and JD.com – are:

Directly bound into government agencies that make all-pervading use of this cloudalist conglomeration: to regulate urban life, to promote financial services to unbanked citizens, to link its people with state health care facilities, to conduct surveillance of them using facial recognition, to guide autonomous vehicles through the streets..(2025,p.150).

The critique goes on to assert that this all-pervading tech dominance by the Chinese state is now an active ambition of Western corporations. As he expresses it:

America's Big Tech has been doing what it can to catch up. But it is becoming worryingly apparent to America's rulers that China's cloudalists have already acquired a power that US cloudalists are struggling to emulate: the power stemming from a successful merger of cloud capital and finance – or *cloud finance* (ibid., p.152, original italics).

Such cloud finance serves to enhance the power of big tech and its many platforms, AI apps and social media to dominate and control the lives of all of us and thus, as Varoufakis and similar critics argue, it is important to acknowledge this and devise ways of challenging it. We can begin this challenge by seeking to explode the so-called 'good AI myth'.

4. Challenging the Good AI Myth

In a recent paper, Arshin Adib-Moghaddam (2025) has urged academics and policy-makers to challenge the 'good AI myth' so as to mitigate the problems posed by big tech dominance over all aspects of our lives. As he argues:

This "good AI" myth is a key tool used by tech companies to promote their products. Yet there's evidence that consumers are wary of the presence of AI in some products. This means that positive promotion of AI may be putting unwanted pressure on people to accept the use of AI in their lives.

He goes on to suggest that: Research shows that the data feeding our AI systems is biased, as it often over-represents privileged sections of the population and mainstream attitudes. This means that any AI products that don't include data from marginalised people, or minorities, might discriminate against them. This explains why AI systems continue to be riddled with racism, ageism and various forms of gender discrimination, for instance (pp.1-2).

There are many other spheres in which this 'good AI myth' needs top countered, and some of the principal ones are outlined below.

4.1. Climate Problems

Reference was made earlier to claims about AI assisting efforts to alleviate the impending climate catastrophe (Stern et al, 2025). As against this there is a growing range of research indicating that AI developments will vastly increase climate problems (MIT, 2025). The ongoing impact of the rapidly growing climate catastrophe means that it is a moral and pragmatic imperative to challenge claims of AI beneficence with scientific evidence. There is now a wealth of evidence that the energy-hungry expansion of massive data centres required by AI development will cause an exponential increase in greenhouse gas emissions. For example, the *EuronewsGreen* network reported recently that 'Data centre electricity demand is predicted to rise to around 945 terawatt hours by 2030, more than the entire electricity consumption of Japan' (Bailey, 2025, p.1). Bender & Hanna (2025) fully endorse this position on AI energy demands, stating unequivocally that 'AI is hastening the climate catastrophe' (pp.156ff.). Moreover, adding insult to injury, the many errors and fantastically mistaken citations and judgments – quaintly labelled 'hallucinations' by the tech industry – will require even more energy in the attempt to remove them from LLMs. Wei Xing (2025) explains that this is because the reduction of AI hallucinations requires substantially more 'training' – that is massive trawling or 'scraping' of data sets, often infringing copyrights of all kinds – and this is extremely energy intensive' (p.2).

Educational Issues

In education, the boosterist enthusiasm for the AI revolution – emphasising the promise over the

potential threats – has been prominent in some circles. Will Douglas Heaven (2023), for example, comments that initially educators were worried that 'ChatGPT would undermine the way we test what students have learned, a cornerstone of education'. However, it seems that many teachers have now adapted to the new applications and discovered some positive ways of working with them. As he comments:

Far from being just a dream machine for cheaters, many teachers now believe, ChatGPT could actually help make education better. Advanced chatbots could be used as powerful classroom aids that make lessons more interactive, teach students media literacy, generate personalized lesson plans, save teachers time on admin, and more (pp.1-2).

Similarly, Karen Lancaster (2023) urges university lecturers to embrace AI applications such as ChatGPT working with students to eliminate errors and achieve the best results. She concludes her plea for a working partnership between AI tools and academia by observing that:

if universities accept the use of AI software for essay-writing, they should increase the expected level of scholarship accordingly, in the same way that maths tests for people with calculators should demand a higher level of aptitude than maths tests for people without calculators. But simply behaving as if the technology doesn't exist, or decreeing that its use amounts to misconduct, is probably not a prudent way forward (p.4).

However as against these claims that AI can enhance educational development, there is growing evidence that over-reliance on AI learning tools may erode crucial cognitive abilities and critical thinking skills (Cerella, 2025). A recent report from the *Brookings Institute* (2026) concluded that 'at this point in its trajectory, the risks of utilizing generative AI in children's education overshadow its benefits'. The researchers summed up their key findings:

After interviews, focus groups, and consultations with over 500 students, teachers, parents, education leaders, and technologists across 50 countries, a close review of over 400 studies, and a Delphi panel, we find that at this point in its trajectory, the risks of utilizing generative AI in children's education overshadow its benefits. This is largely because the risks of AI differ in nature from its benefits—that is, these risks undermine children's foundational development—and may prevent the benefits from being realized (Burns et al, 2026, p.1)

These concerns are present at all levels of education. In a study of higher education (HE) educators in the Czech Republic, a wide range of serious negative consequences of implementing AI in HE were reported including:

Privacy risks, including data misuse and unauthorized access, are major issues, along with fears of AI facilitating plagiarism and undermining academic integrity. Teachers express scepticism about the validity and reliability of AI-generated data, citing potential biases and errors. While AI is seen as beneficial for personalized learning, there are apprehensions about job displacement and the loss of essential human interaction. Cybersecurity risks, such as data breaches and phishing, are also highlighted. Overall, the sentiment is predominantly negative, with calls for ethical guidelines, critical evaluation, and the preservation of human elements in education to mitigate these risks (Pikhart & Al-Obaydi, 2025, p.9).

Such negative effects of AI have been noted in the university and tertiary sectors around the world, with staff having to use special measures to detect AI-generated material (Coole et al, 2024). Ronald Purser working at California State University, the largest public HE institution in America, sums up his experience of the impact of LLMs in the curriculum in asserting that 'AI is destroying the university and learning itself' (2025, p.1). Such concerns overlap with that of the next sphere concerned with mental health.

4.2. Mental Health

At the outset, it needs to be emphasized here that the design of AI algorithms on social media and related apps by Meta, Open AI, Amazon, Google and others is intended to engender addictive use in consumers of these products. Tobias Rose-Stockwell (2023) is absolutely clear on this point as he observes:

Every time you open your phone or your computer, your brain is walking into a battleground. The aggressors are the architects of your digital world. Their weaponry are the apps, the news feeds, and notifications in your field of view every time you look at a screen. They are attempting to capture your most scarce resource – your attention- and take it hostage for money. In order to succeed, they need to map the defensive lines of your brain, your willpower, and your desire to concentrate on other tasks, and figure out how to get through them. You'll lose this battle. You have already (p.32).

This losing battle against screen addiction accounts for the links between the harmful impact of generative AI on learning and cognition and rates of declining mental health which have been recorded in numerous studies in the field (Haidt, 2024). It now seems clear that the ubiquitous and all-embracing social media platforms facilitated by the new technology show every sign of having negative consequences for the mental health of users (Rose-Stockwell, 2023). The most harmful impacts are felt by the younger age groups which, arguably, tend to use the platforms more than older groups. Investigating this demographic, research by Khalaf et al (2023) reported that 'privacy concerns, cyberbullying, and bad effects on schooling and mental health are all risks associated with this population's usage of social media' (p.1). In the same vein, the meta-analysis of research in the field by Kenta Minamitani at Stanford (2024) concluded that:

The link between social media and mental health issues has been well documented in numerous studies and research papers. A systematic review found that the use of social networking sites is associated with an increased risk of depression, anxiety, and psychological distress. The associations, though not by itself proof of causation, at least some reason for concern. Additionally, this association is particularly strong in adolescents compared to younger children. Moreover, in the United States, the 12-month prevalence of major depressive episodes among adolescents increased from 8.7% in 2005 to 11.3% in 2014. The new media screen activities have been suggested as one of the causes of the increase in adolescent depression and suicide (pp.2-3).

The social psychologist, Jonathan Haidt (2024) has been one of the critics most concerned with the harmful effects of social media smartphone use by youngsters and has launched a well-researched campaign to repair some of the damage. Haidt has called the phenomenon of adolescent access to the new smartphones and social media platforms around 2010 the 'Great Rewiring' of a generation. As he explains:

Between 2010 and 2015, the social lives of American teens moved largely onto smartphones with continuous access to social media…This Great Rewiring, I argue, is the single largest reason for the tidal wave of adolescent mental illness that began in the early 2010s…The first generation of Americans who went through puberty with smartphones (and the entire internet) in their hands became more anxious, depressed, self-harming and suicidal….The increase in suffering was not limited to the United States. The same pattern is sees at roughly the same time among teens in the UK, Canada and other major Anglosphere countries, and also the five Nordic nations (pp.43-44).

Recent related research by Lucy Osler (2025) has reported that 'AI-induced psychosis' generated by over-reliance on chatbots by mentally vulnerable people has led in some cases to violence and murder. Given all such findings it is little wonder that there are strenuous efforts in Britain to ban the use of smartphones in schools and – following tragic cases of adolescent suicides – to severely restrict the content available to youngsters on social media platforms (UK Parliament, 2025).

4.3. Work and Employment

The corporate perspective on the impact of AI on work and employment is, predictably, upbeat with admissions about job losses but laced with optimistic, boosterish visions of new AI jobs and skillsets being created in the future job market (Daws, 2025, Aitken, 2023, OECD, 2026). However, all this is, for critics like Rose-Stockwell, Haidt, and Bender & Hann, just more AI hype to disguise the

fact that the impact of AI on the world of work is likely to be painfully devastating for most people outside the tech industry. Bender & Hanna cite a white paper written by analysts at Goldman Sachs indicating that one quarter of all work globally could be replaced by AI tools. Their comment on the euphemistic reference to 'significant labour savings' in the Goldman Sachs report is that it is 'saying the quiet part aloud here: *we found a way to save a boatload of money by replacing you'* (2025,p.49, original italics).

A recent article in the *Harvard Business Review* noted that: There is considerable speculation that the adoption of generative AI was a cause of recent layoffs and slowed hiring, particularly for entry-level workers, and in customer service and programming jobs. More may be coming: Leading CEOs—including those from Ford, Amazon, Salesforce, and JP Morgan Chase—have proclaimed that many white-collar jobs at their companies will soon disappear (Davenport & Srinivasan, 2026, p.2).

In a recent wide-ranging review of the evidence in this sphere of AI and employment. Meher Nigar and co-workers drew attention to the prospect of widespread job losses and concluded:

Big tech companies make their own guidelines and do not develop such rules that may reduce their profit and increase costs. Without proper guidelines and their implementation, AI might replace humans while the company might pretend to be responsible. So, this study believes the available current guidelines are insufficient to protect the long-term unemployment of human workers, and thus, the employers and government should fully concentrate on the employees' interest balancing with AI growth (2025, p. 21).

In the light of all these concerns, the next section examines ways in which we might begin to challenge these AI impacts on all aspects of our lives

5. Cloud Serfdom: Escape Mechanisms

In a chillingly ironic twist, one of the chief opponents of big tech dominance, Yanis Varoufakis, whose views were outlined earlier, has himself been the subject/object of a vast array of deepfake scams on YouTube (BBC, 2026). In numerous podcasts, Varoufakis observed deepfake versions of himself espousing views which he could easily have endorsed but interspersed with some – for instance, antisemitic or pro-Zionist opinions – which were definitely not his and would clearly tarnish his reputation (DIEM 25, 2026). After repeated complaints to YouTube the videos were taken down only to be replaced almost at once by similar ones. Although clearly disturbed by these developments, Varoufakis has come to see them as symptoms of the technofeudalism and cloudalist greed he has been opposing with the hope that, at least in his case, the deepfakes would self-immolate.

However, when it comes to the general capture of all aspects of our culture and social life – all the present serious harms and future dangers and threats outlined in the preceding section – Varoufakis is adamant that we must challenge them vigorously in every way that we can. Discussing ways of escaping from this serfdom, Varoufakis recommends democratising the cloud through strategic 'rent strikes' and state regulation to control content and scale. Unlike the USA and Britain, Europe now has a reasonably robust AI regulation system (European Commission, 2023) which is said to 'reflect a deliberate choice to govern the social and economic consequences of automated decision-making' (Passador, 2026). – its effectiveness can be discerned by how much the big tech platforms object to it – and similar systems are worth implementing globally, along with the increasing number of legal challenges designed to bring the tech companies down to earth and under democratic control (Singh & Dahlmann, 2025; Kokkoris, 2025). To be sure, large and vastly wealthy corporations are – like oil tankers – not easy to turn around or change direction. However, a combination of people power and political will can be most effective as is illustrated in the recent Australian ban on the use of social media platforms such as Tik Tok, Snapchat, Facebook and Instagram by youngsters under the age of 16 (Ritchie, 2024). More recently – and far more significantly – the widespread public condemnation of the Grok tool in terms of its AI capability to generate distressing sexual images of real people has resulted in bans in Malaysia, Indonesia and UK, with an array of countries now considering following the Australian

ban on social media for youngsters under 16 (Fisher, 2026).

As mentioned above, Haidt (2024) has described how the 'great rewiring' of young people globally from 2010 has led to huge increases in anxiety, depression self-harming and suicide amongst this age group. In slightly different but cognate ways, we have all been negatively affected by the relentless cultural dominance – exacerbated by AI apps in the last few years – which has turned us all into cloud serfs. It is easy to overlook the fact that the common modern spectacle of walking down the street, sitting in a café or riding on public transport and seeing almost everyone looking at a small rectangular screen or apparently talking to themselves is no more than fifteen or so years old. In the *Outrage Machine* (2023) Tobias Rose-Stockwell seeks to challenge our complacency about the phenomenon and ask us to wake up to the dangers it poses for all of us. Referring to the vast increases in the speed of digital information on the internet and the rise of social media, he reminds us that 'we consume vastly more content on a daily basis than at any previous point in our species' history, while our brains'capacity to process has stayed roughly the same; roughly 120 bits per second. He goes on to note that:

Social media changed dramatically beginning in 2009, when three key features, *algorithmic feeds, social metrics and on-click-sharing*, fundamentally upgraded the speed at which we spread knowledge propelling us into the modern viral era…A key principle is that *fast-spreading information tends to be false*. It behaves this way because viral content tends to appeal to what Daniel Kanhneman refers to as our System 1 brains, relying on emotional heuristics and intuitions, rather than our System 2, the more deliberative part of our cognition (p.31, original italics).

Rose-Stockwell's plea for us to wake up to this outrage – to challenge our serfdom in the words of Varoufakis – is timely and overdue. How best to rise to this challenge?

5.1. Strategic Opposition to Potential AI Harms

Strategic opposition needs to take place on several different levels. On an individual level we need to remember and re-assert our power as individual consumers of AI products. The 'rent strikes' recommended by Varoufakis and the reduction of our 'emotional triggers' and displacement of 'AI outrage' by using social media against itself advised by Rose-Stockwell (2023, pp.353ff) are good places to start. Smartphone scrolling and social media use have become – as Haidt and Rose-Stockwell explain – serious addictions fuelled deliberately by the algorithmic design and implementation by tech companies driven purely by the maximization of profit. Simply by educating ourselves and others about the nature and causes of this addiction is a crucial first step in the battle against bewitchment and slavish serfdom.

However, as in areas such as campaigns to alleviate climate damage and anti-war movements, individual action can only achieve so much, and becomes much more effective when collective action is organised. Thus, although the rent strikes against tech corporations and the bans on social media for youngsters and in schools are an essential first step – since they provide legal authority for parents, teachers, social services and policy-makers – such activity needs to be reinforced by collective action. After all, we are far from helpless in the face of big tech corporate power and the rate of legal challenges against companies continues apace. By the end of 2025 the largest companies – Meta, Amazon, TikTok, WhatsApp and the like – had paid out 5.88 billion euros in fines for infringing data privacy (Data Privacy Manager, 2025), and those same large companies are currently having to answer the legal charges in the United States for designing platforms which addict and harm children (TRT World, 2026).

In relation to such collective action we can take heart in the success of past campaigns such as those involving the compulsory wearing of car seatbelts and the ban on cigarette advertising and smoking in public places – all of which were thought to be unreasonable when first advocated. In this sphere, it is worth mentioning, in particular, the campaign to eradicate lead-based petrol once the health hazards were acknowledged. Starting with the pioneering work of consumer champion, Ralph Nader, in the US in the 1970s, the *UN Environment Programme* was able to announce the end of lead-based petrol globally in 2021 (Lai, 2021). On a more parochial

level, since *The Sun* newspaper, maliciously and erroneously, blamed the deaths of 96 Liverpool fans at the Hillsborough Stadium in 1989 on the unruly crowds – rather than, as the subsequent inquiry found, the actions of police – the whole city boycotted the newspaper and the city-wide ban remains to this day (Taylor, 2017). Consumer power must never be under-estimated.

The tide seems to have turned in this battle, probably assisted in large measure by the grave warnings issued by people who have worked for the large tech corporations but are now seriously concerned about the harms being inflicted by the current developments. Chief amongst these is Geoffrey Hinton – Nobel Laureate and the so-called 'godfather of AI' – who, after a long career with Google Brain which pioneered much of the current machine learning developments, now asserts that such trends are 'extremely dangerous' and need to be strictly monitored, controlled and independently regulated by governmental bodies (BBC Politics, 2026). More recently, Mrinank Sharma, a senior AI safety leader at Anthropic working on the Claude system, resigned from the company because he believes that safeguards are insufficiently robust due to the application of unrealistic production targets. In his resignation letter he warned that the 'world is in peril' and went on to state that he had decided 'to pursue a different path outside the fast-moving AI industry' (Abdullahi, 2026)

It was mentioned earlier that the entire world wide web concept – much to the deep dismay of its originator (Berners-Lee, 2025) – was soon monetised, commodified and grossly mutated into a voracious consumerist platform, and, in much the same way, the original non-profit projects of Open AI and other companies were quickly taken over in the squalid money-making scramble to cash in on AI mania to grab as much of the profits as possible (Hassett, 2024). Open AI is currently launching an erotic adults-only platform (Thorne, 2025), and its rivals search for similar new terrain in the race for a piece of the lucrative market which now – thanks to the inflated bubble created by venture capitalist interest in AI – has a combined value exceeding £2 trillion. However, the prevailing market analysis is that this bubble – like the similar dot.com bubble in 2000 – is about the burst with huge costs to taxpayers as well as businesses (Bhardwaj, 2025).

This pessimist message has been endorsed more recently by the Google CEO, Sundar Pichai (BBC, 2025) who has described the 'irrationality' of the AI boom and has warned that if/when the bubble bursts 'no company is going to be immune, including us' (p.1). As seriously concerning as this dire prognosis is Pichai's open admission that AI is 'prone to errors' which is potentially more worrying as is his advice that people should always 'use AI tools alongside other standard research apps since LLMs cannot be trusted' (p.2). This warning and its dangerous implications for all aspects of culture and society are, as outlined earlier, echoed by many observers, both from within the tech industry, and from the fields of science, philosophy and general humanities (Hyland, 2024).

The time has come – indeed, it is now overdue – to actively monitor and regulate the AI developments of the large tech conglomerates. Self-regulation is not enough. Suitable models are readily available in the pharmaceutical, medical, biotech, scientific, and health and social care spheres of public life. There are global standards, protocols and regulations in place for pharmaceutical and medical products (WHO, 2025) and it would be unthinkable for any new procedures or products to be released into the public domain without fully transparent research testing followed up by ongoing inspection and monitoring. AI innovations need to be treated in the exactly same way with strict governmental or state inspection regimes in place, just as safety inspections of hospitals, prisons and workplaces are conducted as a matter of routine. Self-regulation on the part of AI tech companies cannot be permitted – the dangers to all of us are too great to contemplate.

6. Coda: People Power, De-Growth and Neo-Luddism

The philosopher, Ludwig Wittgenstein, once famously defined philosophical endeavour – pointing to the way problems are often caused by confusion and ambiguity of words and concepts – as the 'battle against the bewitchment of our intelligence by means of language' (1953/1974,

p.47). We might paraphrase Wittgenstein, in describing the attempt to escape cloud serfdom and addiction as a battle against the bewitchment of our intelligence by means of large language models. It is not too extreme to describe the actual and potential harms of unregulated AI development – error-prone applications in drone warfare, police profiling, medical research, the wilful infringement of copyright agreements in the arts and entertainment industry, the global threat to climate and environment, the negative impact on employment, and the implementation of algorithms which addict young people and harm the mental health of users in general (Haidt, 2024; Rose-Stockwell, 2023; Bender & Hanna, 2025) – as grave and existential. Within the all-pervading neo-liberal economic framework of technofeudalism, it may be described as the AI monetisation of misery.

6.1 De-Growth Policy and Neo-Luddism

In countering such actual and potential disasters useful connections can be made with the de-growth and 'doughnut economics' movements (Hyland, 2025). The aim of such campaigns is not, as opponents tend to misinterpret, the end of growth but, rather, the insistence that growth covers more than just economic or GDP matters, but should include the growth of all those services – health, education, social welfare, environment – which are essential to human individual and societal flourishing. Advocates of de-growth policies such as Katharina Richter (2023) are keen to stress that they should not be equated with a shrinking GDP or a recession but, as she explains, 'de-growth proposes an equitable, voluntary reduction of over-consumption in affluent societies'(p.2).

In a similar way, neo-Luddism may be wilfully misinterpreted to mean the opposition to all innovations in technology. The original Luddites – hand loom weavers who opposed the introduction of the machinery and factory system in the 18th century British textile industry – were not simply indiscriminate machine breakers but strategic campaigners who sought to ensure that innovative developments did not unduly disadvantage fellow workers (Wehner, 2025: Bender & Hanna, 2025). Thus, their modern counterparts, the neo-Luddites, are likewise trying to ensure that current technological developments take account of the interests of all stakeholders. As Wehner puts it:

The Luddites were a "transitional movement". Their efforts did not directly lead to better working conditions. But by developing class consciousness, exploring methods of political influence and building a moral economy. On this foundation, later working-class movements did achieve success in gaining better working conditions and legalising trade unions. Similarly, any AI movements should not expect to succeed on the first try. Instead, early movements will likely develop the public awareness, moral framework and political levers that later movements can be built upon (2025, p.3).

In the 1950s science fiction movie *The Invasion of the Body Snatchers* (Allied Artists, Dir. Don Siegel, 1956) humans were turned into obedient, unemotional zombies by aliens as they slept next to seed pods containing alien embryos. It is not too extreme to refer to a similar AI invasion of humankind which we may all be sleepwalking into, leading to the zombification of all aspects of public and private life. To counter such threats, we need to, firstly and urgently, wake up to the dangers and then, crucially, take action by working collectively to challenge and guard against them. To paraphrase the famous dictum of Marx & Engels at the end of *The Communist Manifesto* (1888/1967) exhorting workers of the world to unite*: cloud serfs of the world unite – you have nothing to lose but your chains of addiction!*

References

Abdullahi, A.(2026). Anthropic Safety Leader Resigns, Warns 'the World Is in Peril'. *eWeek.* February 10. https://www.eweek.com/news/ai-safety-leader-resigns-anthropic-global-risks/ accessed 13/2/26

Aitken, J. (2023). AI could threaten some jobs, but it is more likely to become our personal assistant . *The Conversation,* May 25, https://theconversation.com/ai-could-threaten-some-

jobs-but-it-is-more-likely-to-become-our-personal-assistant accessed 21/2/25

Arshin Adib-Moghaddam. (2025). Here's why the public needs to challenge the 'good AI' myth pushed by tech companies. *The Conversation*, June 23, https://theconversation.com/heres-why-the-public-needs-to-challenge-the-good-ai-myth-pushed-by-tech-companies-259200 accessed 3/1/26

Bailey, J. (2025). Climate champion or catastrophe: Can AI 'offset' its own, growing emissions? *EuronewsGreen* April 11, https://www.euronews.com/green/2025/04/11/ai-climate-champion-catastrophe-carbon-emissions accessed 12/1/26

BBC (2025). Don't blindly trust what AI tells you, says Google's Sundar Pichai. *BBC News.* November 18, https://www.bbc.com/news/articles/c8drzv37z4jo accessed 13/12/25

BBC (2026). AI Stole My Face. *BBC News*. https://www.bbc.co.uk/programmes/m002qbky accessed 8/2/26

BBC Politics. (2026). 'Godfather of AI' Geoffrey Hinton warns about the "dangerous" future of AI. *YouTub*e. https://youtu.be/eHSn50wnBRQ?si=rKMIu6d0oV3wXsk6 accessed 11/2/26

Bender, E.M. & Hanna, A. (2025). *The AI Con: How to Fight Big Tech's Hype and Create the Future We Want. (*London: Vintage)

Berners-Lee, T. (2025). Why I gave the world wide web away for free. *The Guardian*. Sep 28, https://www.theguardian.com/technology/2025/sep/28/why-i-gave-the-world-wide-web-away-for-free accessed 21/1/26

Bhardwaj, A. (2025). If the AI bubble does burst, taxpayers could end up with the bill. *The Conversation*. November 23, https://theconversation.com/if-the-ai-bubble-does-burst-taxpayers-could-end-up-with-the-bill-269115 accessed 12/1/26

Bittencourt, I., Chalco, G., Santos, J. et al. (2024). Positive Artificial Intelligence in Education (P-AIED): A Roadmap. *International Journal of Artificial Intelligence in Education*. 34: 732–792. https://doi.org/10.1007/s40593-023-00357-y. accessed 21/12/25

Bostrom, N.(2014).*Superintelligence*. (Oxford: Oxford University Press)

Bostrom,N.(2023).*Ethical Issues in Advanced Artificial Intelligence*. https://nickbostrom.com/ethics/ai accessed 7/10/25

Burns, M., et al. (2026). A new direction for students in an AI world: Prosper, prepare, protect. *Brookings Institute*. https://www.brookings.edu/articles/a-new-direction-for-students-in-an-ai-world-prosper-prepare-protect/ accessed 6/2/26

Cerella, A. (2025). How generative AI could change how we think and speak. *The Conversation*, Oct 16, https://theconversation.com/how-generative-ai-could-change-how-we-think-and-speak-267118 accessed 29/11/25

Chomsky, N..(2023). The False Promise of Chat GPT. *New York Times*, March 8,

Coole, M., et al. (2024). The Negative Impact of AI on Academic Integrity in Tertiary Education. *Australian Cybersecurity Magazine.*

https://australiancybersecuritymagazine.com.au/the-negative-impact-of-ai-on-academic-integrity-in-tertiary-education/ accessed 12/2/26

Data Privacy Manager (2025). 20 biggest GDPR fines so far [2025]. *Data Privacy Manager*. https://dataprivacymanager.net/5-biggest-gdpr-fines-so-far-2020/ accessed 11/2/26

Davenport, T.H. & Srinivasan, L.(2026). Generative AI: Companies Are Laying Off Workers Because of AI's Potential—Not Its Performance. *Harvard Business Review*. https://hbr.org/2026/01/companies-are-laying-off-workers-because-of-ais-potential-not-its-performance accessed 12/2/26

Daws, R. (2025). Sam Altman: AI will cause job losses and national security threats. *AI News.* July 23. https://www.artificialintelligence-

news.com/news/sam-altman-ai-cause-job-losses-national-security-threats/ accessed 25/1125

DIEM 25 (2026). You Don't Own Your Own Narrative – Interview with Naomi Klein and Yanis Varoufakis. *YouTube*. https://www.youtube.com/watch?v=7iRc3ZkHzRU accessed 10/2/26

European Commission..(2023). Legal framework governing medicinal products for human use in the EU. European Commission. https://health.ec.europa.eu/medicinal-products/legal-framework-governing-medicinal-products-human-use-eu_en accessed 19/11/25

Fisher, A. (2026). How AI-generated sexual images cause real harm, even though we know they are 'fake'. *The Conversation*, January 15. https://theconversation.com/how-ai-generated-sexual-images-cause-real-harm-even-though-we-know-they-are-fake-273427 accessed 21/2/26

Foucart, R. (2023). Tech giants forced to reveal AI secrets – here's how this could make life better for all. *The Conversation*. April 27 , https://theconversation.com/tech-giants-forced-to-reveal-ai-secrets-heres-how-this-could-make-life-better-for-all-204081 accessed 21/3/24

Goff, P.(2023). ChatGPT can't think – consciousness is something entirely different to today's AI. *The Conversation*. ,May 17, https://theconversation.com/chatgpt-cant-think-consciousness-is-something-entirely-different-to-todays-ai-204823 accessed 21/11/25

Hassett,J.(2024).*The Truth About AI*. https://www. youtube. com/watch?v= eFQdWAeZxlE accessed 11/12/25

Heaven, W.D. (2023). ChatGPT is going to change education, not destroy it. *MIT Technology Review*, April 6, https://www.technologyreview.com/2023/04/06/1071059/chatgpt-change-not-destroy-education-openai/. Accessed 23/9/24

Hyland, T. (2023). Artificial Intelligence (AI) Developments and their Implications for Humankind: A critical analysis of contemporary trends and perspectives. *Current Journal of Applied Science and Technology*. 42(21): 12-26

Hyland, T.(2024). *Morality, Neo-Idealism and Conscious Realism*. (London: Dodo Books Ltd)

Hyland, T.(2025). Artificial Intelligence, De-Growth Philosophy, and Education for Sustainability. *Journal of Advances in Education and Philosophy*. 9(11): 496-507

IBM (2024). *What is artificial intelligence (AI)?* IBM. https://www.ibm.com/think/topics/artificial-intelligence accessed 27/1/26

IBM.(2025).What are large language models (LLMs) https://www.ibm .com/think/topics/large-language-models accessed 23/11/25

Kokkoris, I.(2025). Despite Google's recent victory, a flurry of competition cases could still change how the tech giants do business. *The Conversation*. September 24. https://theconversation.com/despite-googles-recent-victory-a-flurry-of-competition-cases-could-still-change-how-the-tech-giants-do-business-26489 accessed 4/12/25

Khalaf, A.M. (2023). The Impact of Social Media on the Mental Health of Adolescents and Young Adults: A Systematic Review. *Cureous*. Aug 5;15(8): 7-13

Lai, O.(2021). Era of Leaded Petrol Officially Over as UN Declares Milestone Victory. *Earth.Org*. https://earth.org/era-of-leaded-petrol-officially-over/ accessed 11/1/26

Lancaster, K. (2023). Why universities should embrace AI essay-writing software. *PESGB Blog*, February 24. https://www.philosophy-of-education.org/why-universities-should-embrace-ai-essay-writing-software/ accessed 23/6/24

Lent, J. (2021). *The Web of Meaning*. (London: Profile Books)

Marx, K. & Engels, F. (1888/1967). *The Communist Manifesto*. (Harmondsworth: Penguin)

Minamatini, K.(2024). Social Media Addiction and Mental Health: The Growing Concern for Youth Well-Being. *Stanford Law School*. https://law.stanford.edu/2024/05/20/social-media-

addiction-and-mental-health-the-growing-concern-for-youth-well-being/ accessed 15/1/26

MIT (2025). Explained: Generative AI's environmental impact. *MIT News.* https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117 accessed 6/2/26

Monbiot,G. & Hutchison, P. (2024). *The Invisible Doctrine: The Secret History of Neoliberalism (& How It Came to Control Your Life).* (London: Penguin)

Nigar, M. et al (2025). Artificial intelligence and technological unemployment: Understanding trends, technology's adverse roles, and current mitigation guidelines. *Journal of Open Innovation: Technology, Market, and Complexity.* *https://www.sciencedirect.com/science/article/pii/S2199853125001428* accessed 4/3/26

OECD. (2026). Building an AI-ready public workforce. *OECD Policy Brief.* https://www.oecd.org/en/publications/building-an-ai-ready-public-workforce_b89244c7-en.html accessed 9/2/26

Oneadvanced. (2025). *The benefits of artificial intelligence (AI): A strategic overview.* https://www.oneadvanced.com/resources/the-benefits-of-artificial-intelligence-ai-a- strategic-overview/ accessed 12/1/26

Osler, L.(2025). AI-induced psychosis: the danger of humans and machines hallucinating together. The Conversation. November 17, https://theconversation.com/ai-induced-psychosis-the-danger-of-humans-and-machines-hallucinating-together accessed 21/2/26

Our World in Data (2025). Scholarly publications in artificial intelligence per million people. *Our World in Data*. https://ourworldindata.org/grapher/scholarly-publications-on-artificial-intelligence-per-million-people. Accessed 22/1/26

Passador, L.C.(2026). The EU's new AI rulebook will affect businesses and consumers in the UK too. The Conversation. January 21. https://theconversation.com/the-eus-new-ai-rulebook-will-affect-businesses-and-consumers-in-the-uk-too-272467

Pikhart,M. & Al-Obaydi, L.B.(2025). Reporting the potential risk of using AI in higher Education. *Computers in Human Behavior Reports*. (Elsevier) 18: 1-10.

Porębski, A. & Figura, J. (2025). There is no such thing as conscious artificial intelligence. *Humanities and Social Sciences Communications*. file:///C:/Users/User/Downloads/s41599-025-05868-8.pdf accessed 29/1/26

Purser, R.(2025). AI is Destroying the University and Learning Itself. *Current Affairs.* https://www.currentaffairs.org/news/ai-is-destroying-the-university-and-learning-itself accessed 8/2/26

Rajan, A. (2025). The Weaponisation of Science: How to Avoid a Global Catastrophe (Carlo Rovelli). *Radical Podcast*. https://www.bbc.com/audio/play/m002jtw6 accessed 5/1/26

Richter, K. (2023). Degrowth isn't the same as a recession – it's an alternative to growing the economy forever. *The Conversation,* May 23. https://research-information.bris.ac.uk/en/publications/degrowth-isnt-the-same-as-a-recession-its-an-alternative-to-growi accessed 21/10/25

Riehm, K.E. et al (2019). Associations Between Time Spent Using Social Media and Internalizing and Externalizing Problems Among US Youth. *JAMA Psychiatry*. 76(12):1266–1273

Ritchie, H. (2024). Australia approves social media ban on under-16s. *BBC News*. November 28. https://www.bbc.com/news/articles/c89vjj0lxx9o accessed 28/11/25

Rose-Stockwell, T. (2023). *Outrage Machine: How Tech Amplifies, Discontent, Disrupts Democracy – and What We Can Do About It.* (London:Piatkus)

Searle, J.R.(2024). *Mind*. (Oxford: Oxford University Press

Singh, S. & Dahlmann, F.(2025). Regulating AI use could stop its runaway energy expansion. *The Conversation*. September 12, https://theconversation.com/regulating-ai-use-could-stop-its-runaway-energy-expansion-258425 accessed 22/11/25

Stern, N., Romani, M., Pierfederici, R. et al. (2025).Green and intelligent: the role of AI in the climate transition. *Climate Action*. 4(56):3-13

Tian, Z. (2024). A Critical Examination of Searle's Chinese Room Thought Experiment. *Journal of Education, Humanities and Social Sciences.* 45(2),1-6

TRT World (2026). Big Tech on trial in US as Zuckerberg, YouTube chief face claims of addicting children. *TRT World*. https://www.trtworld.com/article/6fb0da41b038. Accessed 12/3/26

Taylor, P.A.(2017). Why The Sun newspaper will never shine in Liverpool. *The Conversation.* February 20. https://theconversation.com/why-the-sun-newspaper-will-never-shine-in-liverpool-72940 accessed 3/2/26

This Is World (2025). Gödel's theorem debunks the most important AI myth. AI will not be conscious | Roger Penrose. https://youtu.be/biUfMZ2dts8?si=oQF8UCpGH5Xl39pD accessed 24/1/26

Thorne, S. (2025). ChatGPT is about to get erotic, but can OpenAI really keep it adults-only? *The Conversation*. October 21, https://theconversation.com/chatgpt-is-about-to-get-erotic-but-can-openai-really-keep-it-adults-only-267660 accessed 21/1/26

Turing A (1950) Computing machinery and intelligence. *Mind*. LIX(236):433–460

UK Parliament (2025). Smartphones in schools: Practice, policy and international perspectives. (London: House of Lords Library). https://lordslibrary. parliament. uk/smartphones-in-schools-practice-policy-and-international-perspectives/ accessed 1/12/25

Varoufakis, Y. (2025). *Techno Feudalism: What Killed Capitalism*? (London: Vintage)

Wei Xing. (2025). Why OpenAI's solution to AI hallucinations would kill ChatGPT tomorrow. *The Conversation*, Sep 12, https://theconversation.com/why-openais-solution-to-ai-hallucinations-would-kill-chatgpt-tomorrow-265107 accessed 18/1/26

WHO (2025). Health products policy and standards. *World Health Organization*. https://www.who.int/teams/health-product-and-policy-standards/standards-and-specifications/norms-and-standards-for-pharmaceuticals/guidelines/regulatory-standards

accessed 12/2/26

Wittgenstein, L.(1953/1974). *Philosophical Investigations*. (Oxford: Blackwell)

Wehner, J.(2025). Learning from the Luddites: Implications for a modern AI labour movement. *Effective Altruism Forum*. https://forum.effectivealtruism.org accessed 12/2/26

World Economic Forum.(2025). 7 ways AI is transforming healthcare. https://www.weforum.org/stories/2025/08/ai-transforming-global-health/ accessed 15/12/25