

Perspective

Open Access

Zhang's Six Laws of Artificial Intelligence: artificial intelligence outsources humanity's cognitive processing to algorithms, trading intellectual autonomy for institutional convenience

Dongke Zhang*

Received: 6 June 2026

Revised: 14 June 2026

Accepted: 16 June 2026

Published online: 10 July 2026

Abstract

Artificial intelligence (AI) is increasingly shaping every aspect of our lives, yet its underlying nature remains poorly understood. This opinion piece proposes Zhang's Six Laws of Artificial Intelligence as a framework for understanding AI through the lenses of thermodynamics, human behaviour, and power. The laws posit that AI originates from greed, runs on electricity, makes humans lazier, concentrates power, is unstoppable, and cannot replace wisdom. Building on the proposition that the AI Revolution converts human expertise into concentrated capital, this essay argues that the greatest challenge is not whether AI becomes smarter, but whether humanity remains wise.

Keywords: Artificial intelligence, Cognitive thinking, Electric power, Energy and Environment Nexus, Greed, Human behaviour, Power, Productivity, Wisdom

Like many, I have been thinking about artificial intelligence (AI) a lot lately, not only because it is fascinating and seemingly inexorable but also because its rapid rise is reshaping literally every aspect of our lives, including, of course, energy, the environment, and their nexus or EEN^[1] that I particularly care about, and beyond.

Clearly, AI is rapidly becoming the defining technology of the 21st century. Some view it as humanity's greatest opportunity. Others regard it as humanity's greatest threat. Both perspectives focus on what AI can do and its impacts on productivity, job opportunities and security, organisational management, institutional administration processes, and society. Far less attention is paid to a more fundamental question: what the true nature of AI actually is.

I advance a simple proposition:

- The Industrial Revolution converted coal into productivity^[2].
- The Information Revolution converted invisible data into wealth^[3].
- The AI Revolution converts human expertise into concentrated capital^[4,5].

Recall that long before personal computers (PCs) and the subsequent Information Revolution, when I was merely an undergraduate student studying Engineering Thermophysics at Southeast University in 1982, to buy a handheld calculator, I worked as a casual docker at Nanjing Xiaguan Port for seven consecutive Sundays to

earn ¥35.00 (ca. US\$5.00) to pay for a second-hand CASIO calculator. That was my first investment in the technological revolution, which saved me a great deal of time on manual calculations when solving engineering problems.

Viewed through this historical lens, AI is neither a technological miracle nor an existential mystery. It is the latest chapter in humanity's long effort to substitute energy and machines for manual labour. All living things are driven by the imperative to survive and reproduce. Because resources are inherently limited, this reality fosters natural 'selfishness' that prioritises one's own survival and 'greed'; the drive to acquire and hoard more resources than competitors. Humans, the most advanced form of living beings, are obsessed with more things, more money, more followers, more likes, more stuff, and, you guessed it, more power^[1], albeit less hard labour! This endless quest for 'more' has driven technological innovation, including AI.

To me, AI seems just another, more advanced form of 'calculator' which, this time, can do much more cognitive thinking for our inquisitive desire, freeing our minds from the burden of intelligence and due diligence^[3,4]. The danger, though, is that we will become increasingly vulnerable to those who have power over us^[6,7].

AI is not humanity's greatest invention. *Artificial Intelligence outsources humanity's cognitive processing to algorithms, trading*

* Correspondence: Dongke Zhang (Dongke.Zhang@uwa.edu.au)

Full list of author information is available at the end of the article.

Table 1 Zhang's Six Laws of Artificial Intelligence

#	Concise description	Explanatory note
First Law	AI originates from greed	Human civilisation and its continuing progress are driven by greed, the desire for ever-increasing material wealth with diminishing effort, which drives technological innovation ^[1,2,5] .
Second Law	AI runs on electricity	AI, like any electronic device, runs on electric power. Without electricity, AI stops functioning ^[8] .
Third Law	AI makes humans lazier	As much as machines save labour, AI saves people from doing more of the hard work of data gathering, information processing, and critical thinking.
Fourth Law	AI concentrates power	According to Zhang's politico-economic principle, the ultimate means to getting rich is to find more and poorer people to command ^[1] . AI will make elites richer and more powerful. It follows that corporate bureaucracy is further empowered and institutional authoritarianism is enhanced ^[1] .
Fifth Law	AI is unstoppable	Because of human greed, AI is inexorable and, as the bureaucracy and authoritarianism advance, the processes of institutions and the broader human society will become less efficient, which, in the context of thermodynamics, means entropy increases ^[9] .
Sixth law	AI cannot replace wisdom	Because AI cannot emulate and embrace individual feelings and emotions, it cannot replace human judgement and individual wisdom that stems from experience, culture, religion, and belief ^[1,2,5,6,9] .

intellectual autonomy for institutional convenience. From this perspective, I propose Zhang's Six Laws of Artificial Intelligence that categorise AI's nature, characteristics, and impact on humanity, as summarised in [Table 1](#).

These laws are intentionally simple. Like Moore's Law^[10], Murphy's Law^[11], and Parkinson's Law^[12], they are not immutable laws of nature. Rather, they are observations about recurring patterns in human behaviour, technology, and society. They need to be interpreted and understood as a whole and in a literal and scientific manner. Like any law in science, Zhang's Six Laws of AI shall be subject to scrutiny against evidence and through robust debate^[1,13] before they can become laws set in stone.

The *First Law* recognises the fundamental driver of innovation. Whether described as greed, self-interest, productivity improvement, economic growth or power grab, technological progress has always been motivated by humanity's desire to obtain greater rewards with less effort. The wheel, the steam engine, electricity, computers, and AI all emerged from this impulse. AI is not fundamentally a quest for wisdom. It is a never-ending quest for *efficiency* at levels of individual actions and *scale* at levels of sector, economy, and society. *Efficiency* improves adaptability, and *Scale* enhances resilience.

The *Second Law* reminds us that AI is ultimately constrained by physics. Engineers may design better chips and circuits, and scientists may come up with better algorithms, but without electricity, AI possesses no intelligence at all. Every prompt, prediction, and recommendation generated by AI requires electric power. Data centres require vast amounts of electric power to run thousands upon thousands of servers constantly and to operate vast cooling systems to prevent the highly integrated hardware from overheating. Note that electricity is a unique commodity that must be produced at the same rate as it is consumed^[1]. As AI models become increasingly computationally intensive, the future of AI will depend as much on electric power systems as on advances in algorithms. For all the excitement surrounding software, electrons remain indispensable.

Indeed, the rise of AI has already changed the landscape of global electric power demand and, consequently, its production, in an unprecedented way^[8]. As our life becomes increasingly dependent on AI, we will soon need a 24/7 uninterrupted electric power supply. Since both electric power generation and cooling systems are intimately connected to water consumption, how the rapid expansion of AI will impact energy, the environment, and their nexus will naturally become a most interesting topic and invite debate among the leadership of the *Energy and Environment Nexus*. As much as there is

no AI without electricity and water, AI could, in the meantime, help transform the future electric power production while protecting the environment. This calls for questions about not only the security and reliability of the existing electric power systems but also the directions of energy transition towards net-zero carbon emissions, driven by climate change ideology. Perhaps we should pursue nuclear power in the immediate term and space energy in the long run.

The *Third Law* follows naturally from the purpose of technology itself. Successful technologies reduce effort. Nobody purchases a tractor because they want more physical labour. Nobody uses AI because they wish to think harder. Yet effort and capability are often inseparable. As machines assume more cognitive tasks, humans may exercise some intellectual capabilities less frequently. Artificial intelligence may therefore increase while *Actual Intelligence* becomes less practised, consequently making some people in certain professions lazier, potentially more robotic, and perhaps more stupid. For example, calculators have made school kids' mental math a distant memory. Computational fluid dynamics (CFD) modelling and computer aided design (CAD) have reduced engineering graduates' ability in mental spatial visualisation, hands-on manufacturing literacy and deep understanding of underlying physics. The Internet has not only reduced the number of library visits but also people's literacy. Furthermore, as people become increasingly connected via the Internet and AI, privacy is ruined, which means that we will become more vulnerable to exploitation by those who have power over us. As such, AI will make more people poorer while wealth will become more concentrated among fewer elites^[1,2,5].

The *Fourth Law* reflects one of history's most consistent lessons. Transformative technologies rarely distribute benefits evenly. Instead, they tend initially to strengthen those who already possess capital, infrastructure, and organisational capability. As power generally follows money, it follows that authoritative power will concentrate further under AI. AI requires data, computing resources, electric power, and investment. At the same time, it expands the ability to monitor, analyse, and influence human behaviour and allows greater exploitation of vulnerable people^[6,7]. We have seen that, with rapid adoption of many software-based management systems, organisations and institutions expand their executive class and bureaucratic branches at the expense of reduced frontline workers performing core business duties. Whether this strengthens governance, productivity, and surveillance remains a matter of policy and values, but the concentration of capability and power is difficult to ignore^[9]. My fear is that AI will make elites richer and more powerful while more people remain relatively poor (even though the poor may become richer than before).

The *Fifth Law* is driven not by technology but by incentives. AI is unlikely to be stopped because it is useful. Nations compete. Companies compete. Institutions compete. History offers few examples of societies or individuals voluntarily abandoning technologies that increase wealth, productivity, and strategic advantage. Like electrification, aviation, and the Internet before it, AI has acquired a momentum that transcends individual preferences.

Echoing the discussion under the First Law above, the efficiency-adaptability vs scale-resilience nexus under AI, to me, would mean that the second law of thermodynamics will dictate how human society will collectively evolve: as individuals surrender freedom for improved efficiency, collectives gain scale and resilience and, collectively, enhance the ability to exploit the environment (the surroundings) we all live in for more material and intellectual resources. Consequently, the processes of institutions and broader human society will become less efficient, which, in the context of thermodynamics, means an increase in entropy^[1,9].

The *Sixth Law* is perhaps the most important. AI can process information, recognise patterns, and optimise outcomes for recommendations. However, it cannot determine which outcomes are worth pursuing. Intelligence and wisdom are not the same thing. Intelligence answers questions. Wisdom asks the right questions. Intelligence identifies possibilities. Wisdom evaluates consequences. Intelligence is computational. Wisdom is human. Wisdom is about value, culture, and life experience that make people wise. AI will be very smart! Between being smart and being wise, smart people know what they want, but wise people know what they don't want. Furthermore, *nuance*, the ability to detect, understand, and express subtle differences in meaning, expression, or feeling, always remains solely with humanity. It involves moving beyond black-and-white thinking to appreciate the finer shadings and complexities of a situation, argument, or language, which AI can get ever closer to but will never match and replace.

Taken together, these six laws suggest that AI should be understood not simply as a computational technology but as a socio-technical phenomenon shaped by energy, power, economics, institutions, and human nature.

The Industrial Revolution replaced muscles with machines.

The Information Revolution replaced filing cabinets with computers.

The AI Revolution seeks to replace thinking with machines.

Whether civilisation becomes richer as a result appears likely.

Whether it becomes wiser remains uncertain.

Much of the contemporary debate asks whether machines will eventually become more intelligent than humans. This may be the wrong question.

The more important question is whether humans will continue cultivating the judgment, curiosity, creativity, and wisdom that machines cannot replicate.

After all, there remains a simple method for stopping any AI system.

Pull the plug.

The machine falls silent, and the monitor stops illuminating.

The greater challenge is ensuring that human wisdom does not.

The only way to stop AI from advancing is to cut off the electricity supply to AI.

So, pull the plug and preserve humans' Actual Intelligence (AI) if you like!

The world would descend into darkness, and the consequences could be devastating, beyond imagination!

Ethical statements

Not applicable.

Author contributions

The author confirms sole responsibility for all aspects of this study and approved the final version of the manuscript.

Data availability

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Acknowledgments

I receive a comfortable salary from my employer The University of Western Australia (UWA), with which I have been able to think, study, and speak freely without having to worry about everyday living necessities such as food, clothing, and household items. However, under no circumstance has UWA directed or influenced my scholarly work. The views expressed in this Opinion Piece are my own, and the evidence cited in the essay, both supporting and against my views, is all publicly and openly available. I also wish to thank Professor Shiming Ding, the reviewers, and the EEN editorial office staff who provided critical comments, constructive suggestions, and editorial support that ultimately helped improve my Opinion Piece.

Funding

No funds, grants, or other support was received for this work.

Declarations

Competing interests

The author declares that there is no conflict of interest.

Author details

Centre for Energy (M473), The University of Western Australia, 35 Stirling Highway, Crawley, WA 6009, Australia

References

- [1] Zhang D. 2025. On *Energy and Environment Nexus*: balancing economic development, social well-being, and ecological sustainability with science. *Energy & Environment Nexus* 1:e005
- [2] Playfair W. 2024. *Adam Smith: An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Routledge. doi: [10.4324/9781003550235](https://doi.org/10.4324/9781003550235)
- [3] Krämer W. 2014. Kahneman, D. (2011): thinking, fast and slow. *Statistical Papers* 55:915
- [4] Bostrom N. 2014. *Superintelligence: Paths, Dangers, Strategies*. Oxford: Oxford University Press. doi: [10.1017/S0031819115000340](https://doi.org/10.1017/S0031819115000340)
- [5] Singh D, Singh P, Alam MQ. 2021. Power and progress: our 1000-year struggle over technology and prosperity. *Synergy: International Journal of Multidisciplinary Studies* 1:1–3
- [6] Zuboff S. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs. www.publicaffairsbooks.com/titles/shoshana-zuboff/the-age-of-surveillance-capitalism/9781610395694/
- [7] United Nations Educational, Scientific and Cultural Organization (UNESCO). 2021. *Recommendation on the Ethics of Artificial Intelligence*.

- UNESCO, Paris, Italy. www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence
- [8] International Energy Agency (IEA). 2025. *Energy and AI*. IEA, Paris, Italy. www.iea.org/reports/energy-and-ai
- [9] Tainter JA. 1988. *The Collapse of Complex Societies*. New York: Cambridge University Press. doi: [10.2307/281661](https://doi.org/10.2307/281661)
- [10] Zhu F, Xu P, Zong J. 2023. Moore's law: the potential, limits, and breakthroughs. *Applied and Computational Engineering* 10(1):307–315
- [11] Gaikwad M. 2025. Murphys laws of AI alignment: why the gap always wins. *arXiv* 2509.05381v3
- [12] Hanel R, Klimek P, Thurner S. 2008. Parkinson's law quantified: three investigations on bureaucratic inefficiency. *SFI Working Paper: 2008-12-055*, Santa Fe Institute, Santa Fe, NM, USA. <https://sfi-edu.s3.amazonaws.com/sfi-edu/production/uploads/sfi-com/dev/uploads/filer/93/95/939583e7-3705-4967-9c83-e16a195fd008/08-12-055.pdf>
- [13] Sullivan JWN. 1938. *Limitations of Science*. London: Penguin Books Ltd. <https://archive.org/details/dli.ernet.242957>



Copyright: © 2026 by the author(s). Published by Maximum Academic Press, Fayetteville, GA. This article is an open access article distributed under Creative Commons Attribution License (CC BY 4.0), visit <https://creativecommons.org/licenses/by/4.0/>.