# Don't fear AI. Tax its use and redistribute gains to people

Fears of AI displacing people and creating fresh inequalities may blind us to a better solution: taxing its use, given its eventuality.

Ben Chester Cheong

Rather than ban the use of AI, countries' energies are better focused on how to approach its regulation, says the writer. PHOTO ILLUSTRATION: PEXELS

The father of artificial intelligence (AI), Professor Geoffrey Hinton, created shockwaves last week when he announced he was quitting his job at Google so he can speak out freely against the technology.

"It is hard to see how you can prevent the bad actors from using it for bad things," said Prof Hinton, who joined the chorus of scientists, researchers and others sharing the same fear that generative AI poses a real threat to societies, with a desire to slow this frantic race and push firms to proceed in a measured fashion.

His warning is a sharp rebuke to the business world, where top firms are experimenting with a range of AI applications.

As such technologies become more advanced and adoption picks up pace, businesses will require fewer but highly skilled human workers. Millions across a multitude of industries could be displaced and even those who stay must retool their skill sets. We had seen this happen in the past with automation, as the assembly line shrank the manpower needed to make cars.

Today, AI is disrupting stuffy legacy sectors and raising the bar for the average professional, as lawyers, doctors and regulators must go beyond their traditional craft and learn how to harness AI to spot patterns to do their jobs better.

Yet, there are vast untapped business opportunities at stake, such that Mr Elon Musk, who co-founded research lab OpenAI, openly urged for a temporary ban on AI development, only to U-turn and announce the launch of his own rival TruthGPT.

## TAXING AI TO DEVELOP HUMAN CAPITAL

Rather than ban AI use or slow its development, countries' energies are better focused on how to approach the regulation of AI and, in particular, how to tax firms applying AI to fund the needed redistribution to workers made redundant.

Microsoft co-founder Bill Gates famously raised the prospect of taxing robots in an interview with Quartz in 2017. He pointed out that if fewer residents engage in productive work as a result of automation and AI, countries must explore new ways to raise revenues.

Mr Gates' advice provides a helpful middle ground. Imposing stiff regulations or banning the use of AI even temporarily could hurt technology development and stifle creativity.

In a world of greater competition, public policy should be leveraged to encourage discovery, innovation and enterprise-ready applications to help and not hinder AI-ready firms, while incentivising them to uphold accountability and the respect for privacy.

American politician and former presidential hopeful Bernie Sanders echoed these calls in his book, It's OK To Be Angry About Capitalism. Pointing out that current tax systems are not equipped to handle disruptive technologies like automation and AI, Mr Sanders argues instead for higher taxes to be levied on companies replacing workers with robots. Funds can then be used to pay for the retraining of workers whose jobs are eradicated or downsized due to such automation to mitigate its regressive effects.

## CALIBRATING TAX DEDUCTIBLES

At home, Singapore Management University's tax law academic Vincent Ooi has practical suggestions to tax AI's use and channel the funds towards human capital development in order to create a virtuous circle that uplifts and levels up labour.

The devil, however, is in the details. Levying a flat tax on all automation technologies seems blunt as automation technologies deployed in different industries could result in varying degrees of job losses.

For these reasons, Professor Ooi proposes implementing such a tax through changes to the existing schedular system of depreciation and capital allowances, and allow for deductions to their taxable trade income.

In Prof Ooi's model, companies should only be allowed to deduct part of the full annual depreciation costs of their AI investment from their taxable income in that year if these technologies do not replace human workers.

The most forward-looking firms that have found a way to meld man and machine effectively should be rewarded. Hence, a bonus deduction exceeding the annual depreciation cost of the investment should be given to firms able to increase local headcount while adopting AI.

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In the same vein, Prof Ooi proposes to reduce the deductibility of capital expenditure on AI systems which shrink a firm's overall employment levels. The reduced deductibility rates can be contained in a schedule to give firms greater predictability of their potential savings over many years by investing in AI.

Such "robot taxes" have been employed for the first time in South Korea, which has limited tax incentives for investments in automated machines since 2017 to slow the rate of job displacement.

Although Singapore's taxation system does not peg expenditures to specific funding sources, the funds from such a tax should arguably be channelled towards the Skills Development Fund – the same pot of money containing proceeds of the compulsory Skills Development Levy paid by employers to support workforce upgrading programmes and the needed changes to continuous education and SkillsFuture.

## COMPENSATING UNSEEN HUMAN WORK

A second problem with the owners of AI reaping the full benefits of their machine is this: It relies on the mirage that no human input was ever needed.

This is a false premise that ignores the work required in creating code and putting together the database AI relies on as input.

After all, ChatGPT and its other natural language processing AI cousins work only because of the reams of data fed to them by human beings. This is the domain of not only the coders and programmers but also platform users who gave up their information fed into the machine.

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In his book Who Owns The Future, Dr Lanier cited the example of a couple who pair up on an online dating site and subsequently go on to get married as people who should be paid a royalty if the statistical data around their compatibility is used to pair up another couple on a dating app AI.

He argued that people have been desensitised to surrender valuable personal information with the advent of the smartphone and social media, and yet, in an automated world, information is like gold and more valuable sometimes to the economy than our manual labour.

Such compensation by firms for the contributions of human beings to a repository of digital information they will eventually use is critical to ensure human beings still have some economic dignity, Dr Lanier highlighted.

## STRENGTHENING INTELLECTUAL PROPERTY ENFORCEMENT

A third challenge posed by AI is the replacement of creative human labour through mimicry.

This year has seen the rise of AI-generated songs including Heart On My Sleeve featuring the voice of a robot Drake, who sounded exactly like the actual Canadian rapper.

Though it was subsequently pulled from YouTube, Spotify and TikTok, the episode sent chills through the music industry grappling with this new threat of intellectual property rights infringement.

Not long after, Universal Music Group (UMG) issued a statement lambasting the unauthorised training of generative AI on their copyrighted music and calling these songs "deep fakes, fraud and denying artists their due compensation".

UMG may be on dicey ground. The fair use doctrine under intellectual property laws allows copyrighted material to be used without the owner's permission for purposes including criticism, comment, news reporting, teaching, scholarship or research.

Legal precedence also appears to be on the side of generative AI. A number of United States courts have found that the reproduction of works in the creation of a database for text and data mining constituted fair use, with rulings hinging on whether the use of copyrighted material was transformative.

Concretely, although the US Copyright Office had earlier rejected copyright requests for images produced by AI Midjourney, they highlighted in March that AI-generated content could be granted such rights if they reflect the AI creator's "own mental conception" rather than a "result of mechanical reproduction".

Similarly, under Singapore's Copyright Act last amended and passed in 2021, there are exceptions permitting the copying of works specifically for the purpose of computational data analysis, including machine learning, data mining and sentiment analysis.

A potential solution lies in extending the transparency requirement in the European Union's budding AI Act to cover voluntary disclosure, such that companies that proactively declare the use of copyrighted material in AI-generated productions would not be subjected to penalties. Fines on those that do not can be used to compensate the original content owners.

## GRAPPLING WITH AI

We are truly feeling our way as we cross this river when it comes to AI regulation. In Europe, the EU's AI Act, if implemented, requires companies deploying generative AI tools to disclose AI and copyrighted material used to develop their system.

The Europeans intend to apply a risk-based approach to zoom in on high-risk scenarios involving AI which could lead to biometric surveillance, the spread of misinformation, or discrimination. They want to create guardrails against the most intrusive and dangerous aspects of AI while taking care not to stymie AI development in more benign fields.

For now, it is clear we should tax the use of AI and automation to ensure its development and use remain fair and accountable, and that technology serves people and not the other way around. In a not-so-distant future where AI singularity has been achieved, we might even envisage a world where AI systems must be registered and taxed directly to avoid the challenge of attribution.

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