A Public, Australian AI

Why Australian made, Australian owned, public AI will best serve our community and democratic needs

Discussion Report
May 2024

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Executive Summary

If AI is going to be as consequential and transformative as is being predicted, then we need to build AI infrastructure that is made in Australia, with a public good/not-for-profit imperative.

When it comes to virtual experiences and digital products, we still regularly don't treat these with the same standards and expectations as we do for physical products and services. But as our lives grow ever more digital, this misconception needs to stop.

Artificial intelligence promises to dwarf the complexity, scale, and disruption that even previous digital platforms and services have created.

For over a decade, we've been content to allow private, foreign owned digital platforms to slowly infiltrate our public services, community forums and democratic processes. This has included critical areas such as news dissemination[1], information sharing during disasters[2], community consultations, public service provision[3] and even public trials[4].

1 Sora Park, Caroline Fisher et. al. Digital News Report: Australia 2023. Canberra: News and Media Research Centre, University of Canberra
2 Stan Karanasios, In disasters, people are abandoning official info for social media. Here's how to know what to trust, 2022, University of Queensland
3 Services Australia, Social Media Services in Australia, accessed April 2024, https://www.servicesaustralia.gov.au/social-media-services-australia?context=64107
4 Federal Court of Australia, Federal Court of Australia Youtube channel, accessed April 2024, https://www.youtube.com/@FederalCourtAus/videos

AI production and commercialisation is still heavily skewed towards American companies. This is particularly concerning when we consider that AI will need to account for specifically local concerns and outputs – requiring local data sets, and local quality checkers.

Slowly, we transitioned our public communications infrastructure from publicly managed platforms to privately owned digital products and social media like Google and Facebook. Social media and digital platforms have created an atmosphere of distrust, with most Australians believing social media "causes more problems than it solves".[5]

The saturation of social media for our public services, and the distrust Australians have for it is worth noting for the development of AI. Already, the most dominant players in AI are shaping up to be only a small handful of overseas companies, like Google, Microsoft and Meta.[6]

A report from the CSIRO which looks at AI foundation models found that the vast majority of AI models are from the US (73%), followed by China at 15%, with the rest from the EU and other countries.[7]

There are some welcome attempts at levelling out the playing field through regulation, most notably with the EU's AI Act – currently the world's only dedicated AI regulation[8], as well as a string of strong digital regulation like the Digital Services Act and the Digital Markets Act, but regulation will inevitably be slower than the development of this fast-moving technology.

AI is meant to be reflective and representative of a particular region's culture and information, enough so that its recommendations are understood and tailored to that region's context. Why then, would we rely on foreign companies to decide this local context for us?

There are growing calls for 'sovereign AI' capabilities, whereupon we build critical infrastructure and systems for AI in Australia. While this is welcome, sovereign capability must extend beyond private enterprise, given AI systems will - likely impact community and public services, in much the same way that digital platforms and social media have already done.

We need to build an Australian made, Australian owned, public AI that's governed locally to serve our local community and democratic needs.

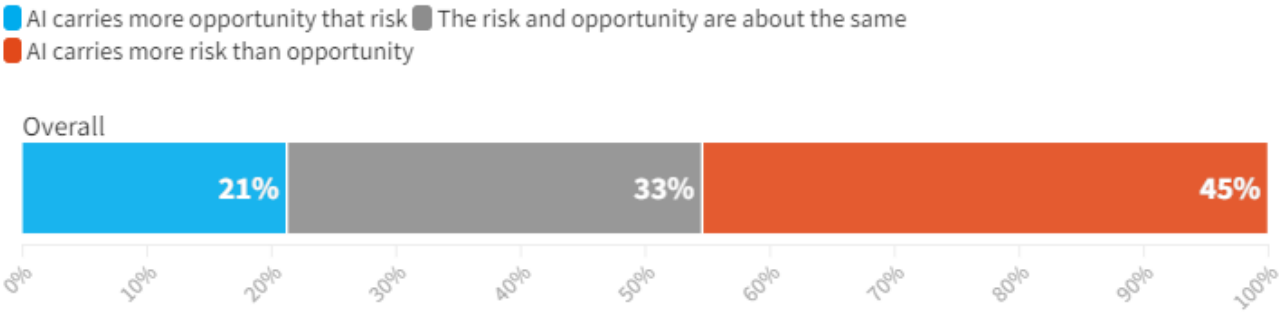
> "AI is meant to be reflective and representative of a particular region's culture and information, enough so that its recommendations are understood and tailored to that region's context. Why then, would we rely on foreign companies to decide this local context for us?"

5 Roy Morgan Snap SMS survey, 'The Internet "solves more problems than it creates"; but Social Media "causes more problems than it solves".' September 2022, https://www.roymorgan.com/findings/9056-social-media-internet-trust-distrust-september-2022
6 Alex Hern, AI race heats up as OpenAI, Google and Mistral release new models, Guardian Australia, April 2024, https://www.theguardian.com/technology/2024/apr/10/ai-ace-heats-up-as-openai-google-and-mistral-release-new-models?CMP=share_btn_url
7 Stefan Hajkowicz, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia, 2024, CSIRO Canberra
8 European Parliament, EU AI Act: first regulation on artificial intelligence, accessed April 2024, https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence

Risks and Issues

The Australian public generally sees AI as having more risks than opportunities, with an Essential poll showing 45% of people believe it to carry more risk, 33% believing the risks and opportunities are about the same, and only 21% believing it to have more opportunities than risks.[9] The public believes it carries more risk even among the younger demographic, who are generally more tolerant and accepting of new technology.

Q. Which of the following is closest to your view about the introduction of Artificial Intelligence (AI) into workplaces, society and everyday life?



Base: All participants (n=1,201)
Our methodology

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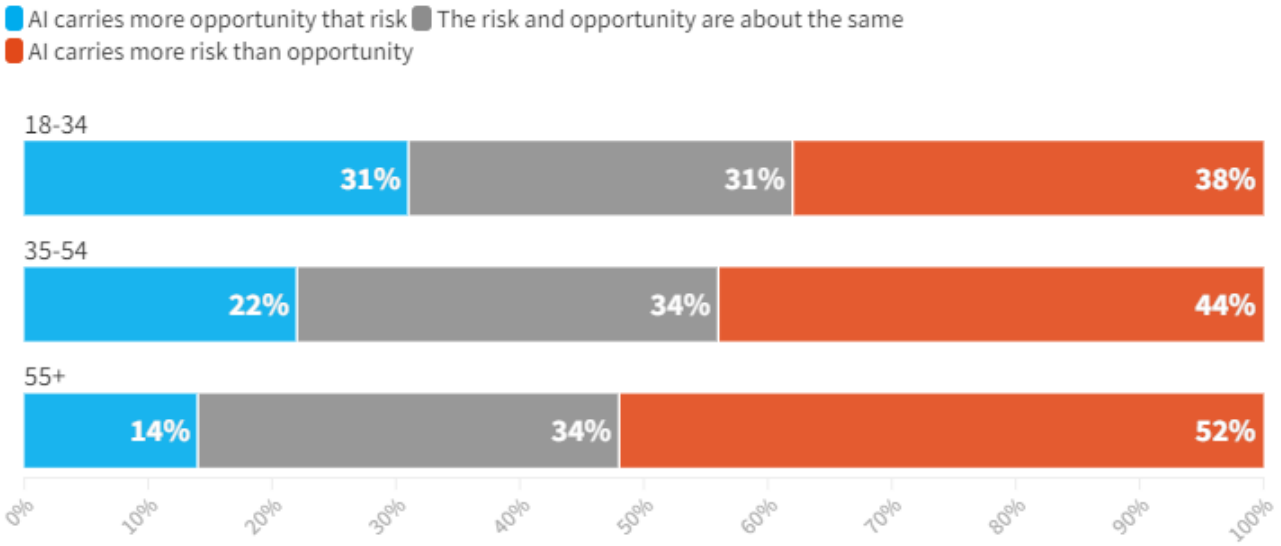


Base: All participants (18-34 n=344, 35-54 n=409, 55+ n=448)
Our methodology

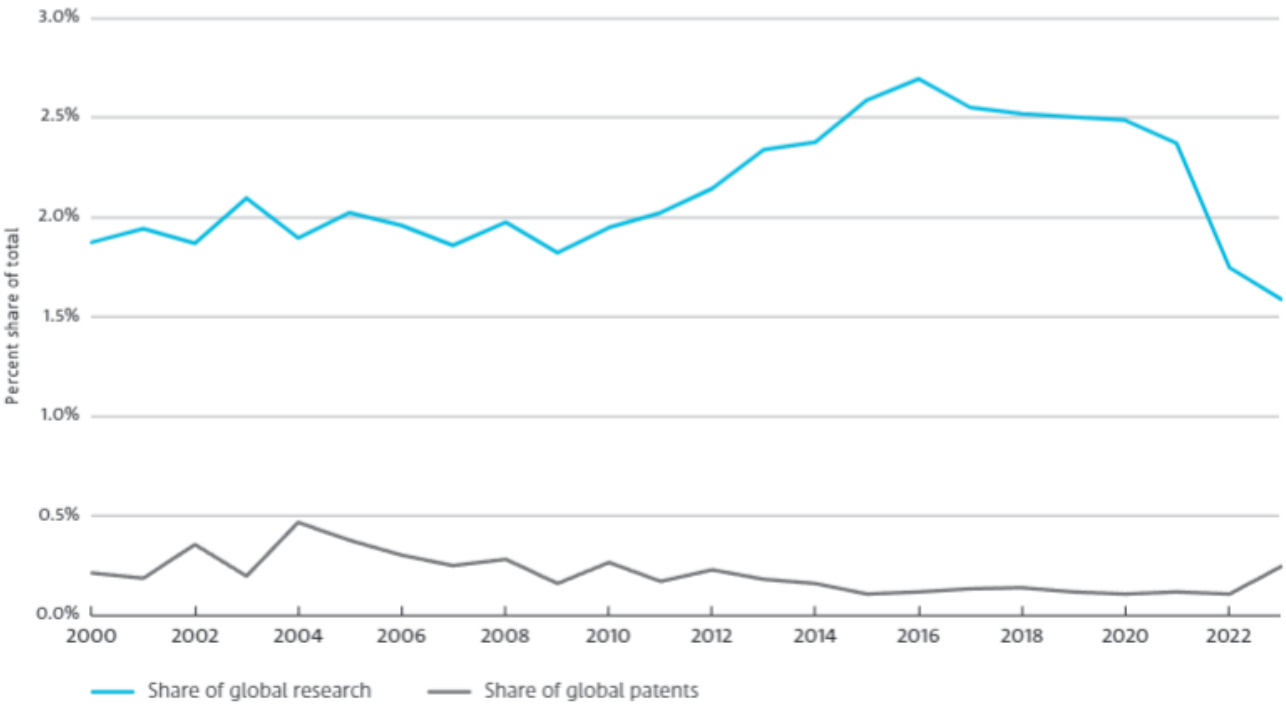
9 Essential Media, AI opportunities and risks Jan 2024, accessed April 2024, https://essentialreport.com.au/questions/ai-opportunities-and-risks

One of the key risks posed by AI is that we're increasingly reliant on private, foreign companies for our critical infrastructure. As software eats the world, we're increasingly ceding control to the largest digital platforms for our national services – from data processing, to national security initiatives to climate and disaster planning, and more.

The COVID pandemic alerted the country to the hazards of a global supply chain, and what an overreliance on foreign products and services meant locally, as we experienced critical mask and PPE (personal protective equipment) shortages[10], and delays with vaccines and vaccine distribution.[11]

The Australian government has currently highlighted that there are 3 specific areas of investment for AI – health, aged care and disability services, better towns, cities and infrastructure, and better natural resource management.[12] While these are welcome priorities, there are many more areas that will be impacted or significantly affected by AI.

Australian academics and researchers are among some of the most recognized in the world. However, while our share of global research on AI is notable, our ability to convert that research into products and services is much lower. This is a trend that has persisted for over 20 years, as the figure below shows:[13]



Australia's share of global AI research outputs and patent application (inventions)*

* The last data point is for 2023 and is based on data only from January to June 2023.

CSIRO Report, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia

10 Medo Pourander, More Transparency Needed in PPE Supply Chains, August 2020, University of Melbourne, https://pursuit.unimelb.edu.au/articles/more-transparency-needed-in-ppe-supply-chains
11 Deborah Gleeson, Why is vaccine supply so limited, March 2021, Latrobe University, https://www.latrobe.edu.au/news/articles/2021/opinion/why-is-vaccine-supply-so-limited
12 Australian Government Department of Industry, Science and Resources, List of Critical Technologies in the National Interest, accessed April 2024, https://www.industry.gov.au/publications/list-critical-technologies-national-interest/ai-technologies
13 Stefan Hajkowicz, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia, 2024, CSIRO Canberra

This means that we rely on overseas technology for products and innovation despite strong research and insights in those same technologies.

During the Black Summer bushfires in 2020, when we needed real time satellite imagery to try and manage the speed and movement of the fires, the satellite system for this became subject to a 24-hour delay, rendering them "useless"[14]. The satellites also did not have the same level of detail on Australian areas as they did with the US, where the technology was developed and managed.

Another significant example of our overreliance on critical technology from overseas companies was a highly sensitive and secret cloud service for the Department of Defence.

After Microsoft pulled out of negotiations with no warning[15], it impacted several sensitive projects, including a data integration scheme which began to unravel after Microsoft's departure[16].

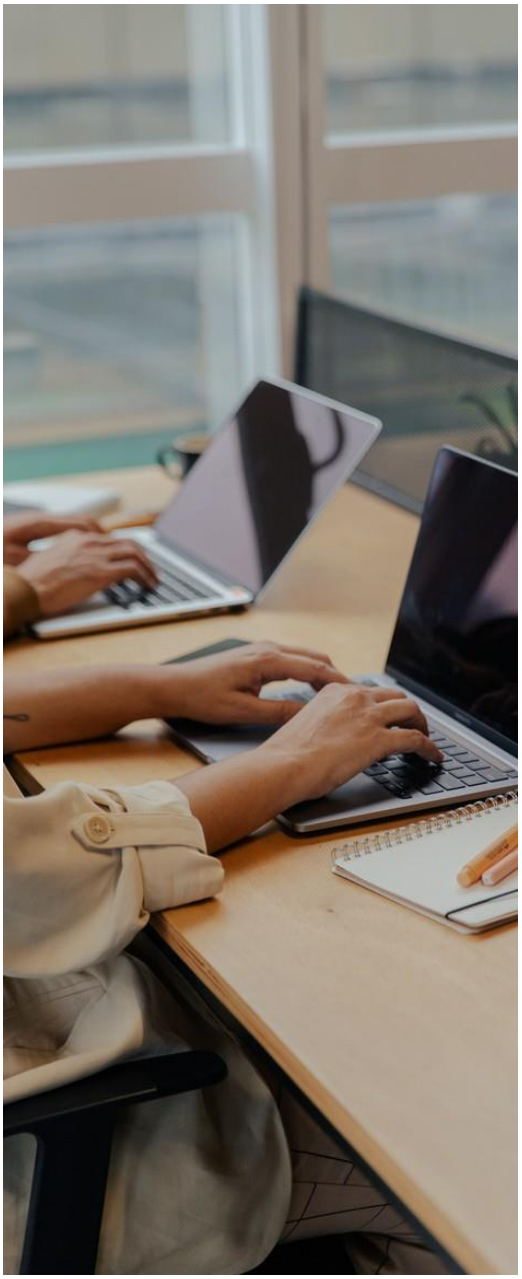
This vulnerability is worth remembering given the recent announcement of Microsoft's $5 billion investment in cloud services and artificial intelligence in Australia[17].

This announcement is reminiscent of Google's $1 billion pledge for Australian AI earlier in 2021, including for a national research centre through CSIRO [18].

While these investments are significant and welcomed by many, it's important to remember that Microsoft and Google are both one of the small handful of companies who are in an AI 'arms race'[19], trying to gain first mover advantage in the burgeoning commercial AI industry.

Even if we take these investments at face value, these companies' ultimate objectives remain competitive advantage over all other companies. Gaining critical footholds and gatekeeper status, particularly with large governmental contracts and with service provision to countries and nation states, will place them in very strategically beneficial positions.

14 Linton Besser, The insidious creep of US and Chinese technology has left a cold, hard reality for Australia, Feb 2024, ABC Australia, https://www.abc.net.au/news/2024-02- 20/australia-loss-relying-on-us-china-technology/103484844
15 Joseph Brookes, Microsoft walks away from Top Secret cloud negotiation Jue 2022, InnovationAus, https://www.innovationaus.com/microsoft-walks-away-from-top-secret-cloud-negotiation
16 Linton Besser and Andrew Greene, $100m Defence contract with KPMG rife with governance failures, review finds, Dec 2023, ABC Australia, https://www.abc.net.au/news/2023-12-20/defence-data-contract-kmpg-weak-indefensible-review-finds/103247476
17 Office of the Prime Minister of Australia, Microsoft investment in Australian innovation, October 2023, https://www.pm.gov.au/media/microsoft-investment-australian-innovation



Social media of the last decade should have taught us a valuable lesson – that it is dangerous to overly rely on private platforms for democratic systems and processes and that the profit motive can be at odds with the design of for good/public service functions.[20]

We are still reeling from and dealing with social media harms such as increased disinformation, the weakening of journalism and news media, tribalism and polarisation of populations, the decrease of trust in government and democratic institutions and more.[21]

These were the result of ceding many important functions – like news dissemination, public service communications and community consultations to private social media platforms that were designed for addiction, engagement-at-all-costs and profit above all else.

AI is predicted to have an even larger impact on our communications and our public square, and therefore it is imperative that we not repeat the mistakes we made with social media's harms.

“Social media of the last decade should have taught us a valuable lesson – that it is dangerous to overly rely on private platforms for democratic systems and processes and that the profit motive can be at odds with the design of for good/public service functions.”

18 CSIRO, Google Australia announces $1 billion Digital Future Initiative investing in Australian infrastructure, research and partnerships, November 2021, CSIRO Canberra, https://www.csiro.au/en/news/all/news/2021/november/google-australia-announces-1-billion-digital-future-initiative

19 Alex Hern, AI race heats up as OpenAI, Google and Mistral release new models, Guardian Australia, April 2024, https://www.theguardian.com/technology/2024/apr/10/ai-race-heats-up-as-openai-google-and-mistral-release-new-models?CMP=share_btn_url

20 Jordan Guiao and Peter Lewis, *The Public Square Project*, 2021, The Australia Institute's Centre for Responsible Technology, https://australiainstitute.org.au/wp-content/uploads/2021/04/210428-public-square-paper-WEB.pdf

21 United Nations, *Our Common Agenda Policy Brief 8 Information Integrity on Digital Platforms*, June 2023, United Nations, https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-information-integrity-en.pdf

Regulatory capture

As we look into regulating AI in Australia, how will these investments from large tech companies play a part in the eventual shape of our AI landscape?

Currently the most popular concept for AI regulation is 'Responsible AI'. This has been welcomed by major AI players like Google [22], Microsoft[23] and Meta[24], and is the preferred nomenclature for recent AI regulatory initiatives[25], as well as numerous AI events and seminars. However, there are several issues with this concept.

The concept of 'Responsible AI' overly anthropomorphises AI as an independent agent, capable of being accountable and self-monitoring. We know that this is not the case. Notwithstanding possible future versions of the technology which could potentially be capable of AGI (Artificial General Intelligence – the state at which AI reaches the same level of cognitive ability as humans or even better), current AI systems are not able to self-reflect and apply concepts of 'responsibility' or 'accountability'.

Generalising around 'Responsible AI' fails to clarify who in vast context of AI systems should be accountable. There are those who initially developed AI like machine learning engineers, their managers and executives, those who license that software and adopt it for their own uses, those who deploy the technology, or those who use it. The complex value chain of AI systems involves several layers of potentially responsible persons. The figure below shows the various stakeholders involved in AI products:[26]

Data61 Report, Stakeholders for RAI governance

22 Google AI, Responsible AI practices, accessed April 2024, https://ai.google/responsibility/responsible-ai-practices/
23 Microsoft AI, Empowering responsible AI practices, accessed April 2024, https://www.microsoft.com/en-us/ai/responsible-ai
24 Meta, Facebook's five pillars of Responsible AI, June 2021, https://ai.meta.com/blog/facebooks-five-pillars-of-responsible-ai/
25 Australian Government Department of Industry, Science and Resources, The Australian Government's interim response to safe and responsible AI consultation, January 2024, https://www.industry.gov.au/news/australian-governments-interim-response-safe- and-responsible-ai-consultation
26 Qinghua Lu, Liming Zu et. al. Responsible AI Pattern Catalogue: A Collection of best practices for AI governance and engineering, September 2023, Data61 CSIRO Canberra

Does the discipline of 'Responsible AI' assume responsibility across all of these parties? That would be an ideal scenario, however should something go wrong, goodwill and guidelines are not enough, and there must be specific agents designated who will face consequences for any harms or wrongdoing.

There is a danger that large technology companies use the concept of 'responsible AI' as a form of 'ethics washing', creating vague and unenforceable guidelines on their AI products, using it as a way of side-stepping more formalised, mandatory and designated legislation. Or promoting a façade of participating in 'ethical' or 'responsible' initiatives, while largely continuing with business as usual behaviour.[27]

There are other tactics, like drawing out negotiations while not slowing down on any product development. 'Ethics lobbying' such as advocating for a self-regulating regime rather than overt regulation[28], or 'ethics shopping' – cherry-picking regulations that serve their purpose[29], while advocating for deregulation for those that don't[30].

Further, the largest AI companies are more than happy to promote their efforts in the 'Responsible AI' space, all the while ignoring current pressing issues, around privacy, worker displacement and copyright.

Privacy will be critical to the development of AI in Australia. Currently the Privacy Act review has stalled but there are some important recommendations at play – including data minimisation, data limitations and a privacy tort for serious breaches[31]. Strong privacy protections around data will have a serious impact given AI requires massive amounts of data for their models to function.

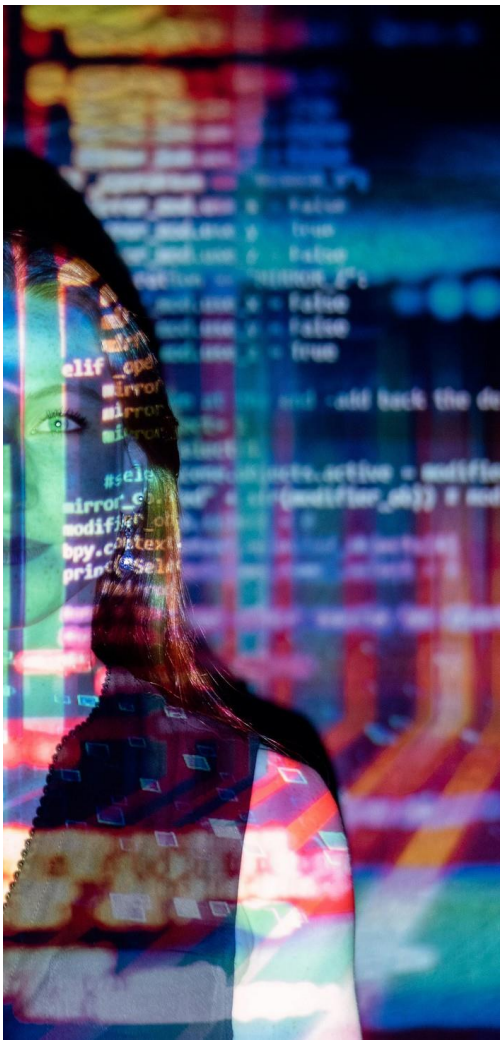
AI is set to disrupt many industries, resulting in job losses or job displacements. While some are counting on AI also creating a host of new jobs, we need to develop programs and initiatives that account for these in a real, tangible way, not just as a hopeful premise. There should also be training programs that help transition potentially displaced workers to ready them for more AI related roles.

One of the biggest battles around AI is around copyright[32] and compensation for the datasets used to train AI models[33]. Without a massive amount of data, AI models and their applications will be stunted, limited and not be very useful. ChatGPT and Sora – both headline products of OpenAI, was trained on a colossal amount of data – using news websites, videos from YouTube, forums from Reddit, millions of book manuscripts, and thousands of websites that are publicly available[34].

27 Ori Freiman, Making Sense of the Conceptual Nonsense 'Trustworthy AI', 2022, University of Toronto
28 John Davidson, Big tech urges government to go slow on AI rules, August 2023, AFR, https://www.afr.com/technology/big-tech-urges-government-to-go-slow-on-ai-rules-20230828-p5dzzz
29 Josh Taylor, Google calls for relaxing of Australia's copyright laws so AI can mine websites for information, April 2023, Guardian Australia, https://www.theguardian.com/technology/2023/apr/19/google-calls-for-relaxing-of-australias-copyright-laws-so-ai-can-mine-websites-for-information
30 Madeline Garfinkle, Google CEO Sudar Pichai says there is a need for governmental regulation of AI: 'There has to be consequences', April 2023, Entrepreneur, https://www.entrepreneur.com/business-news/google-ceo-on-ai-regulation-there-has-to-be-consequences/449820
31 Australian Government Attorney-General's Department, Privacy Act Review Report 2022, https://www.ag.gov.au/sites/default/files/2023-02/privacy-act-review-report_0.pdf

> There is a danger that large technology companies use the concept of 'responsible AI' as a form of 'ethics washing', creating vague and unenforceable guidelines on their AI products, using it as a way of side-stepping more formalised, mandatory and designated legislation. Or promoting a façade of participating in 'ethical' or 'responsible' initiatives, while largely continuing with business as usual behaviour.

None of these original authors and copyright owners were compensated*. None of these copyright owners were even notified or asked for consent on whether they were happy to have their original works to be used in this way. As large AI products continue to be developed by the dominant tech companies, they are continuing to be in breach of copyright and continuing to not pay for any data that was harvested to train their AI models. In fact, these companies are actively lobbying to weaken copyright laws[35] so that they can continue to harvest data and copyrighted original works without notice, consent or compensation to the original authors.



These are just brief explanations of the current issues plaguing AI ambitions, and these should not be forgotten or ignored in favour of yet to be realised, nebulous AI goals.

Moreover, we should not let the large investments provided by the technology companies with AI ambitions have undue influence in regulation, or be used as an excuse for previous or current transgressions.

32 Megan Morrone, Copyright law is AI's 2024 battlefield, January 2024, Axios, https://www.axios.com/2024/01/02/copyright-law-violation-artificial-intelligence-courts
33 Brian Fung, Thousands of authors demand payment from AI companies for use of copyrighted works, July 2023, CNN, https://edition.cnn.com/2023/07/19/tech/authors-demand-payment-ai/index.htmlsora
34 Lauren Leffer, Your personal information is probably being used to train Generative AI models, October 2023, Scientific American, https://www.scientificamerican.com/article/your-personal-information-is-probably-being-used-to-train-generative-ai-models/
35 Josh Taylor, Google calls for relaxing of Australia's copyright laws so AI can mine websites for information, April 2023, Guardian Australia, https://www.theguardian.com/technology/2023/apr/19/google-calls-for-relaxing-of-australias-copyright-laws-so-ai-can-mine-websites-for-information

A growing movement

There are growing calls in Australia to develop sovereign capability in AI.

Independent senator David Pocock successfully called for a Senate inquiry into developing sovereign tech capability. Pocock has been a critic of current government procurement in tech, particularly as it relates to smaller local firms gaining access to government tech contracts[36].

The terms of the inquiry include investigating current opportunities for reform to develop a stronger local tech presence, and implications of use of foreign technology for the Australian public service.

Pocock had also been critical of the $5 billion Microsoft AI investment, questioning the government on whether local companies had the opportunity to bid for this work, and naming companies with the same capabilities[37].

A South Australian parliamentary inquiry also backed calls to develop sovereign AI capability to be able to harness its economic opportunities while being able to maintain effective governance[38]. The NSW government also have their own inquiry into AI[39]. While the Federal Government has released some initial information on its own plans for a 'Safe and responsible AI' in Australia[40].

36 James Riley, Pocock urges tech firms to engage on sovereign capability, February 2024, InnovationAus, https://www.innovationaus.com/pocock-urges-tech-firms-to-engage-on-sovereign-capability/
37 Joseph Brookes, Senate to probe tech sector's 'sovereign capability', December 2023, InnovationAus, https://www.innovationaus.com/senate-to-probe-tech-sectors-sovereign-capability/
38 South Australian Parliament, Submissions Open: Select Committee on Artificial Intelligence, August 2023, https://www.parliament.sa.gov.au/en/News/2023/07/11/03/37/Select-Committee-on-Artificial-Intelligence
39 NSW Parliament, Inquiry on Artificial Intelligence, accessed April 2024, https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=2968
40 Australian Government Department of Industry, Science and Resources, The Australian Government's interim response to safe and responsible AI consultation, January 2024, https://www.industry.gov.au/news/australian-governments-interim-response-safe-and-responsible-ai-consultation

In a submission to the Federal government inquiry, academics across several Australian universities, including UNSW, Melbourne University, ANU and Adelaide University highlighted the lack of a local industry, highlighting the sovereign risk of increasingly relying on overseas AI technology[41].

A recent paper from the CSIRO highlighted the source of AI foundational models (the critical ingredient which powers generative AI like ChatGPT). While there has been an explosion of foundational model development in the last few years, the majority of these are from overseas, while the US (73%) dominating, followed by China (15%) and the remaining from the EU and other countries. Australia's capability is currently limited[42].

Even private enterprises are calling for sovereign AI capability, with the CEO for Nvidia – one of the largest AI players today, urging governments around the world to "own the production of their own (AI) intelligence" and that governments should not "allow that to be done by other people"[43]. Although presumably Nvidia is encouraging this as this will increase their market share and services to AI-enabled countries, rather than to protect countries' sovereign interests.

Other countries like the UK have invested significantly to develop sovereign AI capabilities[44], while Germany have developed research and pathways towards sovereign AI, also noting that foundation models are heavily US-centric[45]. Canada has announced a $2billion+ package to develop domestic capability and create safeguards against AI harms.[46]

But sovereign capability is only a part of the solution. We must also build AI initiatives that are explicitly for the public good, made for public services with a not-for-profit imperative, as opposed to products for private industry and private enterprises only.

This is particularly pertinent as it relates to AI use in the public service, with public services potentially being overly reliant on foreign owned and managed technologies.

Academics from the AI community are pushing for more public sector investment in AI to ensure that it's not just profit driven objectives that dominate the goals of AI, and that only private corporations find use for it[47].

There are other ideas, like a "national research cloud" from Stanford University's Human- Centred Artificial Intelligence unit, which ensures the entire research community has access to critical models, computational power and research and relevant datasets, to be able to develop public good AI products and systems[48].

> But sovereign capability is only a part of the solution. We must also build AI initiatives that are explicitly for the public good, made for public services with a not-for-profit imperative, as opposed to products for private industry and private enterprises only.

41 John Davidson, Labor ignoring the 'elephant in the room' on AI: Experts, August 2023, AFR, https://www.afr.com/technology/labor-ignoring-the-elephant-in-the-room-on-ai-experts-20230804-p5du1p
42 Stefan Hajkowicz, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia, 2024, CSIRO Canberra
43 Kate Irwin, Nvidia CEO calls for sovereign AI infrastructure, says AI costs 'negligible', February 2024, PCMag, https://au.pcmag.com/ai/103799/nvidia-ceo-calls-for-sovereign- ai-infrastructure-says-ai-costs-negligible
44 Larry Elliott, Britain's AI sector expected to get 100m extra funding in budget, March 2024, The Guardian, https://www.theguardian.com/uk-news/2024/mar/04/britain-ai- industry-funding-budget-alan-turing-institute
45 Stefan Hajkowicz, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia, 2024, CSIRO Canberra

The path forward

An AI future dominated by the same digital platforms whose harmful products and practices we are still dealing with is not inevitable.

We propose several ways that a locally managed, public AI capability could be developed:

Tax tech companies appropriately

The largest tech companies like Google and Meta with aspirations for AI dominance here in Australia continue to apply tax minimisation and tax avoidance strategies. Despite generating over a billion dollars in revenue locally, tech giants only declare a small percentage of their income to be taxable in Australia.

Microsoft only declared 6.4% and 6.7% of their income in Australia as taxable in the last 2 financial years, while Google declared only 18.2% and 21.5%, and Facebook 8.8% and 9.5%. [49]

Microsoft

NAME	INCOME YEAR	TOTAL INCOME	TAXABLE INCOME	TAX PAYABLE	TAX AS PROPORTION OF TAXABLE INCOME	TAXABLE INCOME AS A PROPORTION OF TOTAL INCOME
Microsoft	2021 - 2022	$6,296,619,602	$400,935,241	$120,280,572	30%	6.4%
Microsoft Datacenter (Australia)	2021 - 2022	$1,090,699,291	$0	$0	0%	0%
Microsoft Clipchamp Holdings	2021 - 2022	$210,826,619	$57	$57	29.8%	0%
Microsoft	2020 - 2021	$5,021,135,371	$336,566,007	$94,742,221	28.1%	6.7%
Microsoft Datacenter (Australia)	2020 - 2021	$828,934,738	$0	$0	0%	0%

46 Marieke Walsh and Joe Castaldo, Trudeau announces AI spending plan to bolster Canadian infrastructure, computing capacity and safety, April 2024, The Globe & Mail, https://www.theglobeandmail.com/canada/article-trudeau-announces-ai-spending-plan-to-bolster-canadian-infrastructure/
47 Stefan Hajkowicz, Artificial intelligence foundation models: Industry enablement, productivity growth, policy lever and sovereign capability considerations for Australia, 2024, CSIRO Canberra
48 Stanford University Human-Centered Artificial Intelligence Center, National Research Cloud call to action, accessed April 2024, Stanford University, https://hai.stanford.edu/national-research-cloud-joint-letter
49 Rachel Clun, Tech giants claiming as little as 5 per cent of their revenue as taxable, March 2024, Sydney Morning Herald, https://www.smh.com.au/politics/federal/some-tech-giants-claim-as-little-as-5-per-cent-of-their-earnings-are-taxable-20240321-p5fe6g.html

Google

NAME	INCOME YEAR	TOTAL INCOME	TAXABLE INCOME	TAX PAYABLE	TAX AS PROPORTION OF TAXABLE INCOME	TAXABLE INCOME AS A PROPORTION OF TOTAL INCOME
Google Australia	2021 - 2022	$1,789,056,238	$325,873,549	$83,263,425	25.6%	18.2%
Google Cloud Australia	2021 - 2022	$102,951,870	$22,419,389	$6,725,817	30%	21.8%
Google Australia	2020 - 2021	$1,399,373,514	$300,364,293	$77,937,593	25.9%	21.5%

Facebook

NAME	INCOME YEAR	TOTAL INCOME	TAXABLE INCOME	TAX PAYABLE	TAX AS PROPORTION OF TAXABLE INCOME	TAXABLE INCOME AS A PROPORTION OF TOTAL INCOME
Facebook Australia	2021 - 2022	$1,147,348,081	$100,584,537	$30,175,361	30%	8.8%
Facebook Australia	2020 - 2021	$717,094,838	$67,955,935	$20,386,780	30%	9.5%

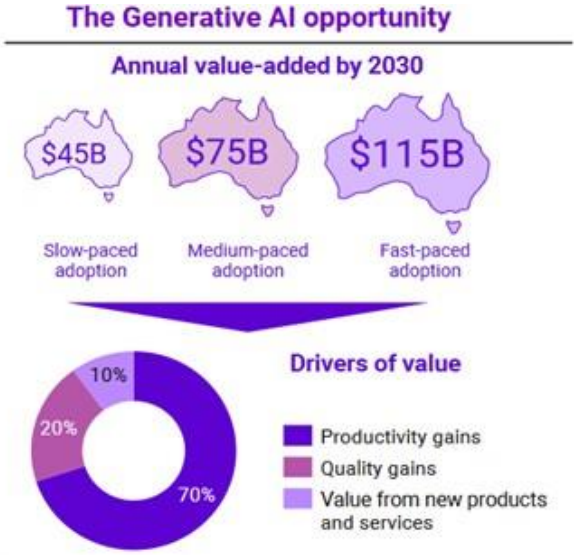
Sydney Morning Herald tech tax calculations sourced from the Australian Taxation Office

Despite the significant profits these companies make in Australia, their tax structures allow them to pay a much lower rate of tax than they should be paying. The revenue from these could be used to fund sovereign, public AI in Australia. These companies have significant AI ambitions in the Australian market.

Create special AI levies from the largest companies

If the tax avoidance and tax minimisation strategies are not able to be addressed, we could at least create special levies that the largest AI players have to pay to help develop sovereign capability in Australia given the large amounts of revenue they already make in Australia, and the projected profits from AI technologies.

There are some eye-watering figures being predicted. According to a report by the Tech Council of Australia, Australia's AI opportunity by 2030 is valued at between $45 billion for a 'slow- paced adoption' and $115 billion for a 'fast- paced adoption'.[50] Without local sovereign capability, this infrastructure will be supplied by private tech companies, who would stand to benefit much more significantly those even those high figures being predicted. It is worth noting that the Tech Council report has been co- authored with Microsoft.



Tech Council of Australia report, Australia's Generative AI Opportunity July 2023

Develop a local Public AI Commission office to charge AI companies for use of any Australian data sets

We must ensure there are bargaining arrangements for news and media, creative and artistic works, and population-wide statistical data which large AI models require. Given that AI technologies cannot function properly without the vast datasets that they've been trained on, compensation should besought for the original, copyrighted works that existing AI technologies have already used from Australian owners.

A special Public AI Commission could be set up to facilitate compensation or enterprise agreements between the AI providers and data holders/copyright owners, among other things. A body dedicated to public AI will ensure AI model owners and builders are using data appropriately, and acknowledging and compensating data owners sufficiently, while also checking that AI practices are safe and are in the community's best interests.

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50 Tech Council of Australia, Australia's Generative AI opportunity July 2023, Tech Council of Australia and Microsoft, https://techcouncil.com.au/wp-content/uploads/2023/07/230714-Australias-Gen-AI-Opportunity-Final-report-vF4.pdf

Regulate that foundation models and LLMs (large language models) and datasets are to be open source and made publicly available, especially to universities and researchers

Many LLMs and foundation models that include Australia datasets have already been harvested and processed. There should be regulation in place to make sure these data sets and models are publicly available, in particular to provide access to universities, government departments and researchers so that they're able to build non- for-profit or public service applications from these models. While compensation for datasets facilitate a more commercial interaction between data owners and tech companies, an open source model for LLMs could facilitate for-good, non-profit research applications that will benefit the whole community rather than individual rights holders.

Build explicitly not-for-profit, for good, community driven AI products via the public service and NFP sector

The Australian government and the Australian public service should develop AI technologies specifically for community and public use, that's not reliant on private platforms. We should also incentivise product innovation and AI product building in the NFP sector through special grants and initiatives. While commercial industry provides benefits to society, it is clear that commercial interests are well represented in the burgeoning AI space. What's underrepresented is public, for-good applications and public service capabilities, who are at risk of being left behind with AI innovation and capability development.

Conclusion

With AI set to transform our digital future, impacting many areas of society, it's not enough to allow the technology status quo to persist. If we take lessons from recent history with social media platforms, a structure that only has a few dominant companies will cause significant harms and inequality. Already we are starting to overly rely on foreign, private owned technologies for critical public services.

If we continue at this rate, Australia's critical infrastructure will ultimately be outside of our control. We must invest in sovereign capability in AI, with a public, for good imperative to service our community's needs ongoing. Taxing large technology companies appropriately, and generating special levies, or charging them for the datasets they use, could contribute towards developing a sovereign, public AI infrastructure in Australia

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