25 July 2023

Lucas Rutherford
Department of Industry, Science and Resources
Technology Strategy Branch

**Via: Industry consultation hub**

Dear Lucas

## Safe and Responsible AI in Australia

Chartered Accountants Australia and New Zealand (CA ANZ) welcome the opportunity to contribute to the discussion on potential governance mechanisms that the Australian Government may consider to mitigate the potential risks of AI. Our members primarily consider AI as a powerful assistant for their work, increasing their productivity and freeing up time for new activities.

We consider regulation is required to create a holistic framework of how AI can and cannot be used. This can mitigate the risk of harm to people by banning uses such as social scoring, biometric identification systems and cognitive behavioural manipulation. We consider it is up to the organisation or person to then choose whether they use tools based on AI and which AI tools they use.

Any regulation in this area will need to recognise that technology is not bound by geographic borders and therefore that an international framework is required. Australia's approach in working with international bodies, such as the International Organization for Standardization, to develop standards specific to AI is a positive step and we would look for international co-operation to progress to offering certification against such standards.

While the areas considered in the discussion paper are broad, potential gaps include environmental impact, human rights and product ownership. In Appendix A we provide detailed feedback on these potential gaps, in Appendix B, a summary of our activities around AI and in Appendix C information about CA ANZ.

To address the gaps raised, regulation stemming from an international framework should include transparency on emissions and data sources and for developers and designers to meet the United Nations' human rights principles throughout their supply chain.

We would be available to discuss further how we and our members utilise AI and invite you to reach out to Jill Lawrence at jill.lawrence@charteredaccountantsanz.com or on +61 2 9290 5552, in the first instance.

Sincerely,

**Simon Grant FCA**
Group Executive
Advocacy & International Development

**Karen McWilliams FCA**
Sustainability and Business Reform Leader
Advocacy

# Appendix A

Overall, regulation should limit what AI can be used for and require designers and developers to be held accountable for ethical and responsible design.

## Opportunities and challenges

### Opportunities

Our members utilise tools that harness the ability of AI to take actions at a speed and scale not previously available. Members in public practice have developed practices and policies to ensure no client identification data is entered into AI tools and that outputs rely on a human to sense-check them for accuracy and reasonableness.

### Challenges

We consider the key challenge is for users to be aware that tools built from generative AI do not think about the question they are posed, but simply generate text that sounds like it might answer the question. However, we also recognise that regulation has limited application in the education of users.

For example, some papers call for outputs generated by AI to have a watermark or require a pop-up notice to inform the user that a response is generated by AI. While helpful, we do not consider this could be regulated as it would be difficult to enforce effectively.

Instead, regulation of developers and designers of foundation models and those of tools built on these models can set boundaries on data sources, transparency and testing which in turn can mitigate risks to the end user.

## Domestic and international landscape

### Domestic

Regulation should be introduced only if there is a means for it to be enforced. Accordingly, we seek regulation to limit how tools built on AI can be used, embed human rights for all people in the supply chain and require suppliers of tools to have an accountable person and an accessible complaints process.

While the areas considered in the discussion paper are broad, potential gaps include environmental impact, human rights and product ownership.

### Environmental impact

As noted in the paper '*AI: Worth the environmental cost?*' released by Deloitte in September 2022, to train a transformer – a deep learning algorithm – would emit more than 626,000 pounds of $CO_2$ (284 tonnes). This is equivalent to five times the lifetime emissions of the average car. These emissions are compounded by the energy used to execute learned algorithms and users' devices as they raise tens of millions of queries every month in tools built on these transformers, and often just for interest, not a specific purpose.

The current trend is to build bigger models, which require more and more devices to store and process an ever increasing volume of data. For example, the parameters, the internal connections used to learn patterns based on training data for tools such as ChatGPT, have exponentially increased from 'around 100 million parameters in 2018 to 500 billion in 2023 with Google's PaLM model.'[1] Not only are more devices needed to store data, the more data there is to interrogate, the longer a model takes to train and more graphic processing units are needed. However, this exponential increase in parameters has not resulted in a corresponding exponential increase in innovative technologies, instead, it has actually shown a 'diminishing performance in terms of accuracy.'[2]

We recognise that growth in the use of AI is inevitable. Even so, governments have a role to hold developers and designers accountable for their impact on the global environment. Were an international standard developed, it could require foundation models, large language models and generative AI tools, as defined in the paper, to publish their source of energy and their greenhouse gas emissions. In Australia, the government's Energy Rating body can then apply an energy rating to AI tools enabling an informed choice by consumers on which tool to utilise.

## Human rights

While the Government's Australia's AI Ethics Principles provide a framework for Australian organisations to adopt these principles in their practices and governance mechanisms for the development and use of AI, it does not ask them to consider the ethical practices of the foundation model driving their AI technologies. Yet large language models implement reinforcement learning, that is, humans are employed by the developer to ask questions to the model and then train the model to filter out answers based on undesirable content such as hate speech.

We refer to the article in Time on January 18, 2023, which shares the findings of their investigation into reinforcement learning, *OpenAI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT less Toxic*. While the investigation found exploitation of workers of Sama, the third party used by OpenAI, and significant mental health harm, it concludes that this relationship was cancelled in 2022.

While the exposure of poor human rights practices within the developer's supply chain led to an existing contract being cancelled, the need for humans to label data for AI systems remains. Investigations such as the above raise concerns not only about the conditions for the human workforce but also about cultural and educational biases they may inadvertently build into these foundation models.

An international standard could include adopting the Guiding Principles on Business and Human Rights issued by the United Nations. This would also enliven accountability to Australia's Modern Slavery legislation.

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[1] Technica, The mounting human and environmental cost of generative AI, 12 April, 2023, https://arstechnica.com/gadgets/2023/04/generative-ai-is-cool-but-lets-not-forget-its-human-and-environmental-costs/, last accessed 12 April 2023

[2] Deloitte, Artificial Intelligence: Worth the environmental cost?, 22 September 2022, https://www2.deloitte.com/nl/nl/blog/sustainability/2022/artificial-intelligence-worth-the-environmental-cost.html, last accessed 21 July 2023

### Product ownership

Currently, how foundation models interrogate data and who is accountable when harmful content is produced is opaque. Where such AI-generated content is provided through a service offered by a regulated party, say a financial adviser, existing regulations protect the consumer and hold that adviser accountable. Yet where a person directly relies on information generated by AI, there is no accountability back to the owner of a tool, the large language model or the foundation model.

An international standard could include accountability obligations such as the nomination of an accountable person for harm arising from toxic content generated by AI. Within Australia, consideration could then be given to establishing a regime that incorporates similar principles to the proposed Financial Accountability Regime Bill 2023.

### International developments

We acknowledge that regulation of technology that is available worldwide must take into consideration how other jurisdictions regulate that technology. Equally, regulation in Australia must consider existing regulations and only seek to introduce additional legislation that can be enforced.

For example, the proposed framework in the US, to allow independent experts to review and test AI technologies ahead of public release, appears reasonable. Such a regulation would need to be coupled with building the appropriate resources to undertake such reviews.

Broadly, we support the regulation of AI technologies to start with an international framework, which is then strengthened with additional regulations specific to each jurisdiction.

## Managing the potential risks of AI

### Training

In dialling into the recent Data and AI Summit hosted by Databricks in June 2023, it appears the next generation of tools using generative AI will be bespoke and industry-specific. This reflects the view that the data and power usage of a model such as ChatGPT is way beyond the needs of a single user. Instead, new AI models will emerge that focus on a particular sector, such as health, which will allow a user to harness the power of large language models only for the expertise they need.

The recent announcement from McKinsey on July 18, 2023, on forming a strategic collaboration with Cohere[3] provides an example of this progression. The article outlines the intent to provide a tailored AI solution to organisations that meets their needs around privacy, IP protection and cost. Critically, it is to focus on data security deploying models inside an organisation's secure data environment.

We agree with the proposition in Appendix C to the discussion paper, that humans should be responsible for overseeing the use of AI in an organisation and be properly qualified and trained. Employee literacy will be key to the safe and responsible use of AI. It will be critical for organisations to upskill their employee's technical skills to interrogate, and sense-check responses generated by AI.

[3] McKinsey and Cohere collaborate to transform clients with enterprise generative AI, 18 July 2023, https://www.mckinsey.com/about-us/new-at-mckinsey-blog/mckinsey-and-cohere-collaborate-to-transform-clients-with-enterprise-generative-ai, last accessed 21 July 2023

Equally, leaders of organisations will need to become educated on how AI systems differ from traditional IT to develop new and effective policies to manage the risks systems that can adapt without human intervention.

This suggests there is a role for government to provide a checklist on what to look for when assessing an AI tool for your business. For example, how to assess a bespoke tool by evaluating its data sources; whether it guarantees that the information returned is free of licensing; and its energy rating.

# Appendix B

The following outlines CA ANZ tools and resources for members and engagement with consultations on the rise of artificial intelligence.

**2023, May 28th: Six skills CAs need for the digital era**

- Talks to the significant impact on the accounting field and outlines the six skills CAs need to keep up-to-date with technology

**2022, August 26th: Acuity article 2022 – Automatic Audit**

- Can the latest audit tools for practice deliver faster, higher-quality audits or are humans still largely required to do the grunt work?

**2022, November 8th: You Unlimited article - How accountants can create future-ready organisations**

- Written by Heather Smith, CA, and explores the pros and cons of automated decision making

**2021, August: Paper with ACCA on Ethics for Sustainable AI Adoption**

- Shares outcomes based on a survey of 5,723 respondents worldwide
- The report outlined 9 areas for members to play their part
- The survey indicated 72% of AI users have an ethical framework
- Raised concern that AI systems have an identifiable carbon footprint
- Noted risk of unintended consequences high, pubic interest must be key consideration

**2020, December 17th: Submission to AI action plan for all Australians**

- We supported plan and noted Governments pivotal role in a harmonised AI approach
- R&D into AI to consider interrelation to Australian and international standards in areas such as cyber security and data privacy

**2019, May 30th: Submission to AI: Australia's Ethical Framework**

- Supported a principles based approach
- Sought them to be reframed to positive actions rather than negative actions to avoid
- Suggested an independent body to improve global alignment and educating people

**2018, July 27: Paper the ethics of AI: *Machines can learn, but what will we teach them?***

- Emphasises the need for global agreement to mitigate 'forum shopping' where companies move operations to a jurisdiction with more relaxed regime.
- Calls for regulation to consider the ethical risks noting that this will be an iterative process.
- Seeks consideration of a certification system for AI standards, such as a 'Fairtrade' logo to reward and encourage ethical AI.
- Poses that the accounting profession, as trusted advisors, can help business embrace and embed AI in socially responsible ways
- Build a consensus around AI industry standards for design, auditing and transparency

# Appendix C

Chartered Accountants Australia and New Zealand (CA ANZ) represents more than 135,000 financial professionals, supporting them to build value and make a difference to the businesses, organisations and communities in which they work and live.

Around the world, Chartered Accountants are known for their integrity, financial skills, adaptability and the rigour of their professional education and training.

CA ANZ promotes the Chartered Accountant (CA) designation and high ethical standards, delivers world-class services and life-long education to members and advocates for the public good. We protect the reputation of the designation by ensuring members continue to comply with a code of ethics, backed by a robust discipline process. We also monitor Chartered Accountants who offer services directly to the public.

Our flagship CA Program, the pathway to becoming a Chartered Accountant, combines rigorous education with practical experience. Ongoing professional development helps members shape business decisions and remain relevant in a changing world.

We actively engage with governments, regulators and standard-setters on behalf of members and the profession to advocate in the public interest. Our thought leadership promotes prosperity in Australia and New Zealand.
Our support of the profession extends to affiliations with international accounting organisations.

We are a member of the International Federation of Accountants and are connected globally through Chartered Accountants Worldwide and the Global Accounting Alliance. Chartered Accountants Worldwide brings together members of 13 chartered accounting institutes to create a community of more than 1.8 million Chartered Accountants and students in more than 190 countries. CA ANZ is a founding member of the Global Accounting Alliance which is made up of 10 leading accounting bodies that together promote quality services, share information and collaborate on important international issues.

We also have a strategic alliance with the Association of Chartered Certified Accountants. The alliance represents more than 870,000 current and next generation accounting professionals across 179 countries and is one of the largest accounting alliances in the world providing the full range of accounting qualifications.