Cooperative
Research
Australia

CRA's submission to the Consultation on
"Supporting Responsible AI: Discussion Paper"

(July 2023)

Executive Summary

Cooperative Research Australia (CRA) welcomes the opportunity to provide a submission to the Department of Industry, Science and Resources' consultation on its recent discussion paper "Supporting Responsible AI".

CRA is the voice of industry-research collaboration and advocates for the translation of research into commercial, economic, social, and environmental outcomes that benefit all Australians. Our members are the lynchpin in the Australian innovation system and are focused on creating new products, services, industries, and value in our economy. CRA represents Cooperative Research Centres (CRCs) and their spinoff/successor entities, CRC – Projects grant participants, 30 universities and research institutions, as well as other industry-research collaboration entities, associated businesses, alumni and professionals.

Our contribution focuses on a collaborative, innovative and strategically oriented approach to support a safe development and implementation of AI.

The highlights of CRA recommendations are:

- Coordination of AI governance across government ensures a coherent and responsible approach to AI development and deployment.
- The financial support from the 2023-24 Budget further reinforces the importance of undertaking coordinated efforts to position Australia at the forefront of AI development and foster economic growth.
- Clear guidance from the government instils public confidence and facilitates responsible AI practices. Furthermore, a public awareness campaign is necessary to encourage the safe and responsible use of AI to take advantage of all the benefits it offers.
- Drawing from local successful models like the National Quantum Strategy, a holistic and collaborative approach can be established.
- A strategically guided approach for AI governance in combination with an innovative approach allow for efficient responses to rapidly changing technology.
- Adopting a risk-based approach to AI governance is crucial, particularly in sectors like healthcare, where human lives are at stake.
- Non-regulatory initiatives, including investing in AI research and infrastructure and hosting an AI International Convention or Global Summit, have the potential to position Australia as a global AI leader. These initiatives promote collaboration, knowledge exchange, and international standardisation, fostering responsible AI practices and driving innovation across sectors.
- Australia holds a unique opportunity to lead the AI revolution, with eager industry-led research organizations ready to contribute.
- Prioritising AI today can unlock immediate gains and long-term advancements.

Cooperative Research Australia is committed to working collaboratively with the Australian Government in its initiative to mitigate any potential risks of AI and support safe and

responsible AI practices. We are committed to a safe, prosperous and innovative future for all Australians, and -as such- we are open to facilitating a platform for further consultation and/or clarification on any of the recommendations.

Potential gaps in regulatory approaches.

While we understand this paper does not seek to consider issues related to AI on labour market and skills, national security and intellectual property, related issues were raised by our members, seek clarification on how they will be integrated in the Government's overarching governance and transparency mechanisms to ensure AI is developed and used safely and responsibly in Australia.

Potential gaps in Australia's regulatory approaches	Suggestions to mitigate risks
Cyber Security: vulnerability of AI models is a concern that is not currently addressed by the Australian initiatives/work relevant to AI according to Attachment A.	Integration with the 2023-2030 Australian Cyber Security Strategy
Public education and awareness: there is a need to educate and raise awareness not only among developers and users, but also the general public.	Launch targeted public awareness campaigns to inform the general public about AI, its benefits, and potential risks.
Data quality, access, ownership and control: the limits of modern AI rely on the amounts of data needed to make it work. Hence, issues of quality, access, ownership and control need to be carefully addressed to prevent potential misuse or exploitation.	In addition to data protection regulations, other suggestions include data ownership transparency and audits/quality checks. More innovative solutions include real conversations for open data initiatives, data sharing and collaboration. Also, it has been advised that Australia needs a national approach to how should we be protecting our national data sets.
Framework for scientific purposes: AI's influence on scientific conversations and research methods raises contrasting perspectives; some believe it will reshape the scientific method, while others fear it may circumvent due process. Without a comprehensive framework, there is a risk of uncertainty, inconsistency, and potential misuse of AI in scientific research, compromising integrity and progress.	A platform for the scientific community to discuss this issue, aiming at reaching a convention and a robust framework, emphasizing transparency, accountability, and ethical considerations.
International collaboration and standardisation: there is a risk of potential fragmentation and incompatibility of AI development and deployment across different countries and regions which could hinder innovation.	A platform for collaboration between countries and standardisation of AI regulations and ethics could help address global challenges associated with AI technologies.

Non-regulatory initiatives.

1. **Foster research and infrastructure to build high-quality capability in AI**.

Investing in AI research and infrastructure will ensure that Australia remains competitive in the global AI landscape. Furthermore, robust AI research can drive innovation across various sectors, leading to the development of new products, services, and solutions.

2. **Host an AI International Convention/Global Summit**

An event of this magnitude has the potential to position Australia at the forefront of AI and have far-reaching benefits and impacts, addressing the most relevant issues in the discussion paper and beyond, in a collaborative and inclusive manner.

Firstly, bringing together prominent experts, country leaders, policymakers, researchers, and industry stakeholders from around the world would create a unique opportunity for knowledge exchange and mutual learning covering ethical principles, data privacy standards, transparency requirements, and mechanisms for accountability in AI development and deployment.

Secondly, the convention or summit could serve as a platform to identify and address pressing issues in the AI domain and contribute towards the development of international standardisation in AI practices and protocols, ensuring consistency, and reducing the risks associated with fragmented approaches.

Notably, hosting such an event in Australia would strengthen the country's position in the AI landscape, showcasing its commitment to fostering ethical and responsible AI practices. This would attract global talent, investment, and partnerships, positioning Australia as a key player in shaping the future of AI research and policy.

Coordination of AI governance across government.

CRA is a strong advocate of collaboration and system-wide coordinating efforts, where the government is an enabler for innovation. Consistent AI governance across government is essential to ensure a coherent and responsible approach to the development and deployment of AI technologies in Australia.

There is a notable lack of clarity among the wider community about how to approach this rapidly evolving technology. The uncertainties surrounding the safety, appropriate usage, and potential risks of AI leave many individuals hesitant to fully embrace its potential benefits in a professional setting.

As a result, there is a prevailing sentiment of awaiting direction from the government or industry leaders, hoping that someone will take the first step and provide clear guidance on

responsible AI practices. By adopting a centralised governance model, we can address this confusion and instil greater confidence in the public.

The top-down approach, as seen in the US model, may not be suitable for direct replication in Australia due to the differences in governance structures and societal values. However, we should recognize the effectiveness of certain elements within this approach and consider adopting a modified version that suits our context.

A strategically guided approach from the Federal Government, leveraging its substantial resources and expertise, can provide guidelines for coherent and aligned AI practices. Recommendations from the government carry significant weight, instilling confidence and enabling agencies and organizations to develop their own regulations that align with national objectives.

We believe that the recent success of the Quantum Strategy provides a proven model to draw from, as it demonstrated the effectiveness of a holistic and collaborative focus. This model includes a lead, a liaison with stakeholders, a taskforce, a committee and, most importantly, an end goal, which is a National Strategy.

The success of the Quantum Strategy provides good model to draw from, emphasizing a holistic and collaborative focus. Establishing a taskforce within the Department of Industry, Science and Resources and forming a National AI Committee will further support informed decision-making and expert insights in the rapidly evolving AI landscape.

The Federal Government allocated funds to support this activity in the Budget:

> The Government will provide $116.0 million over 5 years from 2022–23 to support the development of critical technologies in Australia to drive economic growth, boost technology industries and support the creation of new jobs. Funding includes: $101.2 million over 5 years from 2022–23 to support businesses to integrate quantum and artificial intelligence (AI) technologies into their operations. (Budget Paper No. 2 – Budget 2023-24)

According to the Budget Measures in the Industry, Science and Resources Portfolio, the Government will invest $75,730m over 4 years from 2023-24 dedicated to Artificial Intelligence initiatives including $41.2m[1] to support the responsible Artificial Intelligence Network by extending the National Artificial Intelligence Centre and the new Responsible AI Adopt Program. These are welcome investments.

Responses suitable for Australia

The strategically guided approach was drawn by the governance measure implemented in the US as already discussed. Also, the international scale event was inspired by the Alan Turing Institute's AI Standards Hub. There is an opportunity to dive deeply into both examples for further reference and learning.

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[1] Amount announced without timeframe as part of a new Budget measure in the Industry, Science and Resources Portfolio for the 2023-24 Budget https://www.industry.gov.au/news/announcing-2023-24-budget

Furthermore, we recommend an innovative approach to reaching the right governance settings. Within the ecosystem that our cohort resides, there is a principle that could help facilitate a quick response to a rapid changing technology: innovation allows for iteration.

Initiatives or government action to increase public trust in AI deployment to encourage more people to use AI.

There is agreement amongst our members that clear guidelines are the first step to build trust, followed by training and funding in research. This should come hand-in-hand with a public awareness campaign.

Other ideas from our members include:

- Similar regulation to cookie management in Europe (i.e. more explicit acknowledgements and agreement on the use of content). Note that additional work should also be dedicated to evolving the way that T&Cs are presented in digital settings that do not hinder the user's right to contest them.
- Requirement for AI vendors to disclose whether the content submitted to the AI will form part of a future model, or form part of the dataset which is accessible by others. This could alleviate confidentiality issues and surprise re-surfacing of information.
- Requirement for proper referencing the source information where "facts" or "reasoning" is generated by AI.
- Enforcing information licenses for AI vendors. When AI systems generate content based on source information with specific licenses, such as CC (Creative Commons) licenses allowing non-commercial use, those licenses must be respected throughout the entire process. This means that the non-commercial use right should extend from the information source to the synthesized response.
- Confidence scores on the generated work. E.g. How confident is the AI model that the result is factually correct? Are the facts presented in the AI response reinforced by multiple sources? Are those sources syndicated (i.e. correlated or just facsimiles of the same source content) or are they independently generated?
- Implementing a mechanism for content erasure and correction. Similar to the way that US DMCA enables web-content to be removed from the internet if it is found to be breaching copyright law. This would avoid the risk of something incorrect being stated, and then repeated ad-infinitem in AI models. A corollary to this, is that where an AI has generated something which is subsequently repudiated, there should be records of, and a way of telling people who have received repudiated information that it has subsequently been corrected - like a newspaper does.
- Introducing micropayments or an appropriate compensation mechanism would ensure that content creators are appropriately rewarded for their contributions to AI-generated content.
- Establish a transparent system that tracks and reports the frequency of source academic work usage or citations within AI-generated content.

Risk-based approaches

A risk-based approach to AI governance is a strategic and responsible way to ensure the safe and effective implementation of AI technologies, particularly in sectors where human lives are at stake. Healthcare is a prime example of such a sector, where AI's potential to transform patient care and medical outcomes is immense. However, with this potential comes a need for cautious and well-considered deployment.

By adopting a risk-based approach, healthcare organizations can identify potential hazards and vulnerabilities associated with AI systems and applications. This proactive assessment enables the development of preventive frameworks that prioritize safety and risk mitigation. Through continuous research and development, healthcare practitioners can gain a deeper understanding of AI's capabilities and limitations, ensuring that AI is deployed in ways that complement and enhance human decision-making, rather than replacing it.

Classification frameworks play a crucial role in the risk-based approach, as they provide a systematic way to assess the potential risks of different AI technologies. These frameworks help in identifying areas where additional safeguards or controls are necessary to protect patients and ensure the ethical use of AI in healthcare settings.

Moreover, a risk-based approach ensures that AI implementation aligns with regulatory requirements and industry standards, fostering trust among patients and the broader healthcare community. It allows organizations to make well-informed decisions regarding AI adoption and encourages transparency and accountability in AI-driven healthcare solutions.

Although the Canadian risk classification framework has been proposed as a valuable reference point, we believe that adapting it to the specific circumstances of Australia is essential for its successful implementation.

To ensure a tailored and effective risk-based approach, we advocate for a collaborative platform that brings together experts, researchers, and users of AI technology. This cooperative effort will enable a comprehensive evaluation of the potential risks and benefits of AI in healthcare, taking into account the local nuances and challenges that may arise. Additionally, a pilot program can serve to foster continuous improvement and adaptation, leading to more robust and contextually relevant governance mechanisms.

Australia's opportunity to leverage on AI

Australia possesses a unique opportunity to lead the way in the AI revolution. In Dr Cathy Foley's words, *we are well positioned to capitalise on the amazing research that is making its way out of the lab[2]*.

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[2] Message from the Australia's Chief Scientist in the National Quantum Strategy foreword (2023).

AI technologies alone will be worth an approximate $22 trillion AUD to the global economy by 2030. Early and directed investment in our advanced technology industries helps guarantee Australia's research, intellectual property and companies remain onshore, supporting the government's goal of 1.2 million technology related jobs by 2030. (Portfolio Budget Statements 2023-24. Budget Related Paper No. 1.11 - Industry, Science and Resources Portfolio)

Industry-led collaborative research organizations are eager to contribute and partner with the government to drive progress. There is a shared desire for Australia to become leaders in AI; to become policy makers rather than merely policy takers.

To seize this potential, Australia must prioritise AI today and take advantage of the momentum that we are living. This is in benefit of both future advancements but also for immediate gains.

In addition to the popular known benefits of AI, we need to consider the transformative potential of automation for Australia. This is a vast country with abundant natural resources but limited population. While immigration has supported productivity, strategic engagement with automation could unlock unprecedented prosperity.

By proactively investing in AI research and development, Australia can forge a path to a prosperous future, becoming a trailblazer in harnessing the potential of AI for the nation's benefit and setting an example for the world.