AI Action Plan

Australian Information Industry Association

Submission to the Department of Industry

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About the AIIA

The Australian Information Industry Association (AIIA) is Australia's peak representative body and advocacy group for those in the digital ecosystem. We are a not-for-profit organisation to benefit members, and AIIA membership fees are tax deductible. Since 1978, the AIIA has pursued activities to stimulate and grow the digital ecosystem, to create a favourable business environment for our members and to contribute to Australia's economic prosperity.

We do this by delivering outstanding member value by:
• providing a strong voice of influence
• building a sense of community through events and education
• enabling a network for collaboration and inspiration; and
• developing compelling content and relevant and interesting information.

We represent a larger number of technology organisations in Australia, including:
• Global corporations
• Multinational companies
• National organisations; and
• a large number of small and medium businesses, start-ups, universities and digital incubators.

What is the role for government to support the uptake and use of AI technologies in Australia?

Research indicates that investment in a local AI industry has the potential of adding an additional $255b to Australia's economy over the next five years, creating significant employment opportunities.

The Australian Government has already invested tens of millions of dollars in research. It is important that the Government now supports the commercialisation of AI products for domestic consumption and export markets. To support this endeavour the government should consider setting targets and marrying those targets to progressive 5-year windows.

The negative impact on the Australian economy of our country becoming consumers of AI rather than producers or manufacturers in key markets, particularly Health & Wellbeing, Finance, Agriculture, Mining and Retail will he significant as we will become completely uncompetitive against global markets.

Australia is currently home to some of the world's leading expertise in AI. Without investment and commitment to growth, we will lose this important resource.

The government can play a positive role, coordinating, motivating and safeguarding the adoption and application of AI technology in Australia. Government can support industry and research bodies in their respective missions to adopt and advance AI and building society's trust in safe, ethical AI.

The government has a role in encouraging interoperability, enabling the sharing of relevant case studies demonstrating improved efficiency and reduction in human error and failure rates, and

guidelines on AI procurement similar to the UK guidelines developed by Salesforce, Deloitte, the World Economic Forum, and the UK Office of AI in September 2019.

What can be done to reduce barriers to AI adoption in Australia?

The government must drive understanding of AI amongst the general public while working to allay common concerns regarding security, privacy and job endangerment through education. Government can be an exemplar and early adopter of AI, but the early signs are that government agencies will be slow to incorporate and invest in these new technologies.

Do we have the right vision for AI in Australia?

The government needs to do more than merely invest in AI research. Without commercialisation government and industry will not deliver value to the Australian economy. The AIIA is prepared to perform a significant role to bring the key players together to deliver on this aim.

The AIIA supports the AI Action Plan in its focus on responsible, coordinated research, industrial applications, a skilled AI workforce and societal license, and would welcome opportunities to engage further with the government in implementing the plan as it relates to the ICT sector in Australia. There is a need for a nationally coordinated approach in driving AI capability, adoption and standards, backed up at the educational level by investments in STEM.

How can we lower the barriers to entry for businesses and government developing, piloting or assessing the value of AI while ensuring appropriate consumer safeguards?

The government should support pilot programmes aimed at trialling increased AI capability where a coach assists to manage the risks, uncertainties or ethical issues associated with participation. Automation and machine learning are industry-ready examples of AI technology that could be the focus of a pilot-based adoption drive. A co-designed pilot programme between technical experts, industry leaders and government representatives operating on a model that encourages calculated risks and learning by experience. The pilot could situate coaches from research-based institutions inside companies keen to leverage AI, with the secondment funded and coordinated by the Department of Industry. The government must reward companies who devote time, resources, people and energy into trial adoption of AI in their business working by providing a platform for engagement with technical experts and providing support for companies small, medium or large in size to leverage AI.

What are the problems Australia is facing where the development and application of AI could provide long-term solutions and how could these be prioritised? How can Australia best coordinate its national research effort around areas of national priority?

As suggested by the CSIRO's Artificial Intelligence Roadmap, the government should encourage a 'missions-based' approach where research is focused on leveraging AI in a motivated fashion to solve particular problems of national significance, such as finding a cure for cancers, addressing demand for treatment for age-related disease, medical diagnosis, improving the safety and efficiency of our built environment, reducing costs and increasing productivity of agriculture, mining and fishery. The solutions to problem sets can then be exported globally, commercialising this approach for Australia.

How can we better support industry-researcher engagement?

The government in funding AI research in Australia needs to bring a commercialisation lens to bear on all government-supported research. Whereas some kinds of computing or AI may be conceptually interesting, practical applicability and capacity for commercialisation ought to be the yardstick government applies to aggressive funding initiatives. It is important that the Government now supports the commercialisation of AI products for domestic consumption and export markets. Where AI technology is nearing 'industry readiness', and validated by early pilot programs, such as the use of deep neural networks, application-focused research should be devoted to such technologies in order to help companies in Australia apply AI technologies at scale, with confidence. The advancement of other more speculative technologies ought still to be a goal of Australian AI research, but there should be a firm focus on commercialisation and application.

What is the best way to ensure Australians have the skills and capabilities they will need for an AI enabled future?

The government needs to raise the level of understanding of artificial intelligence (AI) amongst the general Australian public. A recent KPMG report into Trust in AI found that only 51% of the public have heard about AI in the past year, with 61% reporting a 'low' level of understanding of AI, including how and when it is used on a daily basis throughout society. The same report found there is an appetite for a more fulsome understanding of artificial intelligence and its application at the layperson level, with 86% of respondents wanting to know more about AI. The government should invest in a layperson-directed public literacy and awareness campaign. If the public is better informed about AI, what it is, and how it works, that will better inform the strongly held concerns some sections of society bear in relation to AI and encourage citizens in taking advantage of the benefits of AI, especially at work. The government may consider embarking on a public literacy campaign through four different 'streams': educational (primary schools, high schools, vocational education providers, and universities); employment-based (workplaces investing in AI literacy tools, programmes and courses); customer-based (through large industry players and their customer bases) and community-based (through libraries, citizen associations, and local councils). As an example to follow provided by the same *Trust in AI* report, the University of Helsinki in Finland provided the *Elements of AI* fundamentals course to citizens free of charge.

What is the best way to ensure Australian businesses have access to the AI workforce they need for an AI enabled future?

The government must foster partnerships between industry and tertiary education providers, ensuring AI best-practice skills allied with training in ethics, privacy, human rights and moral license is geared towards the commercialisation and real-world applicability of AI. The government should, together with tertiary education providers, engage with the C-suite level, particularly directors, to ensure they are well-positioned to recognise, model and lead in the benefits AI can yield in their companies. The government could consider working with the Australian Institute of Company Directors for this purpose. Together with investing in STEM at the primary, secondary and tertiary education levels, the government should consider how its skilled migration policy is enabling the sufficient reception by the Australian workforce of AI-skilled workers.

Is there more the government can do to support responsible and human centred development and use of AI in Australia?

The government ought to marry together, conceptually, the acquisition of hard AI skills and rigorous training in such topics as data ethics, privacy, data security and consent, so that, as technical expertise is rolled out across the economy, that road to progress in AI-adoption is paved with the kinds of ethical safeguards and risk management practices that will grant the adoption of AI in Australia a viable social license. The government should ensure data quality in the context of decision-making and encourage the adoption of security-by-design processes.

The Government should consider establishing an Advisory Council on Ethics and AI, a partnership between the public and private sector populated by experts in ethics and technology.

The Government should also consider appointing a Chief Ethical and Human Use Officer to assist with the implementation of ethical and humane use principles for AI technology in Australia.

What approach should Australia take internationally to steward its values and commitment to the responsible and ethical use of the AI?

With reference to Standards Australia's Artificial Intelligence Standards Roadmap (https://www.standards.org.au/getmedia/ede81912-55a2-4d8e-849f-9844993c3b9d/O_1515-An-Artificial-Intelligence-Standards-Roadmap-soft_1.pdf.aspx) government should, together with bodies like the AIIA, bolster participation in the Artificial Intelligence Standards Mirror Committee, explore avenues for cooperation with other Standards bodies, including in the United States, encourage the formalised adoption by industry of privacy standards and frameworks such as ISO/IEC 27701 (Privacy Information Management) to ready the industry for the privacy considerations around AI.

Government should also look into entering into memoranda of understanding and other bilateral cooperative instruments with forward-thinking nations, for example the Australia-Singapore Digital Economy Agreement, with a view to advancing common understanding of best-practice, innovative and ethical AI use.

Thank you for considering this response. Should you have any enquiries about the content of this submission, please contact policy@aiia.com.au.

Yours sincerely,

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