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Hon Ed Husic MP
Member for Chifley
Minister for Industry and Science
Via email

The Hon Ed Husic MP,

SAFE & RESPONSIBLE AI – DISCUSSION PAPER RESPONSE - SUSTAINABILITY

I hope this letter finds you well and I would like to express my gratitude for the opportunity to provide feedback on the discussion paper titled "Safe and Responsible AI in Australia." I commend the government's commitment to ensuring AI is developed and used safely and responsibly in our country. It is with great interest and enthusiasm that I provide my insights, particularly emphasising the importance of "*Sustainability*" as a crucial element within the governance mechanisms for AI.

As the discussion paper rightly identifies, the governance mechanisms for AI play a significant role in ensuring its safe and responsible development and usage. These mechanisms, which can encompass regulations, standards, tools, frameworks, principles, and business practices, are essential for building public trust and enabling Australia to fully harness the benefits of AI.

However, in the context of AI development and deployment, sustainability is a fundamental consideration that should not be overlooked. While the discussion paper focuses primarily on governance, it is imperative to recognise that sustainable practices must be integrated into these mechanisms to address the environmental impact of AI and promote responsible resource management.

Incorporating sustainability into the governance mechanisms for AI is crucial to address the environmental challenges associated with its exponential growth. By integrating sustainability principles, regulations, and standards, Australia can lead the way in responsible AI development while mitigating its environmental impact. It is important to foster an environment that promotes innovation in sustainable AI practices, benefiting the broader AI ecosystem.

Furthermore, the environmental concerns associated with AI are especially pertinent in the context of Australia's 2030 emission reduction and 2050 net-zero targets. The proliferation of AI technologies with significant environmental footprints will most certainly hinder the country's progress towards these goals. Therefore, immediate action must be taken to ensure that sustainable data centre practices are an integral part of the generative AI evolution in Australia. By doing so, we can ensure that AI development in Australia remains not only ethical and responsible but also environmentally conscious and aligned with our long-term sustainability goals.

To further emphasise the significance of sustainability in AI development, Bloomberg and Forbes are already covering the environmental issues that a 5 fold increase in power AI requires over traditional compute creates and its only a matter of time until the more 'mainstream' media catches on. Examples below:

1. atNorth: The Future of AI Is an Energy Crisis - High-Performance Computing News Analysis | insideHPC

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2. Artificial Intelligence Is Booming—So Is Its Carbon Footprint - Bloomberg
3. Green Intelligence: Why Data And AI Must Become More Sustainable (forbes.com)
4. AI'S Unsustainable Water Use: How Tech Giants Contribute To Global Water Shortages (forbes.com)

As evidenced above, AI systems, particularly those relying on high-performance GPUs, require vast amounts of energy. As highlighted in articles by Bloomberg and Forbes, the increasing demand for AI is leading to a significant increase in energy consumption and carbon emissions in data centres. As AI continues to evolve and its applications become more widespread, the energy demands will only escalate. It is crucial to implement energy-efficient algorithms, explore renewable energy sources for AI infrastructure, and promote responsible energy consumption in the AI industry.

The sustainability challenges of AI extend beyond energy consumption. Forbes has also addressed the issue of AI's unsustainable water use and its contribution to global water shortages. Water is a precious resource, and its responsible management is crucial for sustainable development. GreenSquareDC's net-zero data centre design is a commendable example of addressing these sustainability issues. By consuming approximately 10 million fewer litres of water per day compared to a traditional data centre, GreenSquareDC is actively reducing water consumption and contributing to sustainable AI development. Exploring innovative cooling technologies and water recycling systems are essential steps towards sustainable AI infrastructure.

Incorporating sustainability considerations into the governance mechanisms for AI is vital to address the environmental impact and promote responsible resource management. By integrating sustainability principles, regulations, and standards, Australia can position itself as a global leader in responsible and sustainable AI development. It is essential to foster collaboration between industry, academia, and government to drive innovation and promote sustainable practices in AI.

Further views on the topic can be found here - www.datacenterdynamics.com/greensquaredc-the-future-of-ai-ready-ethical-and-sustainable-data-centers

In conclusion, I strongly urge the inclusion of sustainability as a core consideration within the governance mechanisms for AI. By integrating sustainability principles, regulations, and standards, Australia can lead the way in responsible and sustainable AI development. The right measures will not only mitigate the environmental impact of AI but also foster public trust and unlock the full potential of AI for our society and economy.

Sincerely,

Walt Coulston
Founder & CEO
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