ACOLA
AUSTRALIAN COUNCIL OF LEARNED ACADEMIES

SUBMISSION

Australian Human Rights Commission Consultation on Human Rights and Technology Issues Paper

5 October 2018

On 5 October 2018, The Australian Council of Learned Academies (ACOLA) provided a submission to the Australian Human Rights Commission on Human Rights and Technology Issues Paper.

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AUSTRALIAN COUNCIL OF LEARNED ACADEMIES

ACOLA is the forum whereby Australia's Learned Academies and our Associate members come together to contribute expert advice to inform national policy; and to develop innovative solutions to complex global problems and emerging national needs.

5 October 2018

Mr Edward Santow
Human Rights Commissioner
Australian Human Rights Commission
Level 3, 175 Pitt Street
SYDNEY NSW 2000

Dear Edward

Re: Consultation on Human Rights and Technology

The Australian Council of Learned Academies (ACOLA) welcomes the opportunity to provide input to the Australian Human Rights Commission's (AHRC) consultation on Human Rights and Technology.

ACOLA provides the platform for collaboration between Australia's four Learned Academies – Australian Academy of the Humanities, Australian Academy of Science, Academy of Social Sciences in Australia and Australian Academy of Technology and Engineering. Through the Learned Academies and with the leading expertise of their fellowships, ACOLA brings more than 2000 of the nation's most eminent scientists, researchers, scholars and practitioners together to contribute to its rich source of expert knowledge and to inform national policy about complex multidimensional problems and emerging national needs.

ACOLA's Horizon Scanning studies have been commissioned by the Prime Minister's Commonwealth Science Council through Australia's Chief Scientist, Dr Alan Finkel AO FAA FTSE. Its current project on artificial intelligence (AI) is supported by the Australian Research Council, the Department of Prime Minister and Cabinet, and the Department of Industry, Innovation and Science. Delivered in collaboration with the Australian Academy of Health and Medical Sciences and the New Zealand Royal Society Te Apārangi, the project examines the effective and ethical development of AI. Through its final report, the ACOLA study will inform policy considerations into the social, legal, ethical, technological and economic implications for broader use of AI in Australia and New Zealand.

ACOLA's Expert Working Group - Professor Toby Walsh FAA, Professor Neil Levy FAHA, Professor Genevieve Bell, Professor Anthony Elliot FASSA, Professor James Maclaurin, Professor Iven Mareels FTSE, and Professor Fiona Wood AM FAHMS – is responsible for the development of the report and deriving its Key Findings. The Expert Working Group's views, which are presented here to elaborate on the study's Key Findings, are highly relevant to the AHRC's consultation and will undoubtedly provide a useful source of input for the Human Rights and Technology project.

Introduction

Artificial Intelligence (AI) provides Australia and New Zealand with a myriad of opportunities and new personal freedoms on the one hand and presents risks such as increasing technological unemployment and global inequalities on the other. As AI continues to advance at a rapid pace, many countries are responding with government and industry strategies or investments to take advantage of its potential benefits and opportunities. Without assertive preparation for AI, Australia and New Zealand will be left behind by other nations.

If responsibly developed, AI has the capacity to enhance wellbeing and provide benefits throughout society. However, the future role of AI will be ultimately determined by decisions undertaken within our present society. To ensure that AI technologies provide equitable opportunities, foster social inclusion, and distribute advantages throughout every sector of society, it is necessary to develop AI in accordance with our broader societal principles centred on improving prosperity, addressing

inequity and continued improvement of wellbeing. Partnerships between government, industry and the community are essential in determining and developing the values underpinning AI for enhanced wellbeing.

While AI is likely to cause short to medium term disruption, it has the potential to generate long-term growth in areas such as health, agriculture, environmental sustainability, and manufacturing. Although many of the opportunities for AI remain on the distant horizon, this disruption will require a measured response from government and industry to ensure its responsible management. Our actions today will set a course toward or away from these opportunities and their associated risks.

A national AI strategy

AI offers both challenges and opportunities to improve the economic, societal and environmental wellbeing of both Australia and New Zealand. While AI is already being implemented for use in public and private sectors, its further development must be directed to allow well-considered implementation that supports Australia and New Zealand to become the type of society they strive to be – one centred on improving prosperity, addressing inequity and pursuing continued improvement of wellbeing.

ACOLA proposes that the safe, responsible and strategic development of AI will require a national strategy that allows areas of major opportunity to be established while the range of social, ethical, and legal principles embraced are held as core values for implementation. It is proposed that the national strategy should be supported by an implementation framework that balances three pillars critical for AI implementation: social values, data driven innovation and responsive regulation. The interplay between these pillars are fundamental to the way that AI advances and the opportunities that we pursue.

The protection of human rights and fairness must be built in from the outset, to ensure that AI is implemented safely and sustainably, to benefit all our citizens. Meaningful trialogue between civil society, industry and the highest levels of government is needed to decide the precise society that we want to have. A summit like Australia 2020 could identify desired societal goals, as well as red lines that ensure AI is developed within sustainable, ethical and socially responsible boundaries encouraging advancement while preventing the development of undesirable technologies such as fully autonomous weapons. This means recognising that AI must be developed for the common good.

Community engagement, accessibility and inclusion

AI presents opportunities to make society more inclusive, improve living standards for the disadvantaged and disabled, and increase representation by minority groups. Conversely, badly managed AI can amplify human biases and increase disadvantage. To maximise the benefits and avoid the pitfalls, there is a need to ensure that advancement is inclusive, protects human rights, and is well communicated to align with social values that are openly accepted.

Increased focus on accessibility and inclusive AI design can minimise possible harm to society by reducing prejudice and bias that can be introduced by AI systems. This includes access to digital infrastructures that support, enable, and diffuse AI systems in Australia and New Zealand; designing AI systems for diverse needs rather than adopting a ‘one-size-fits-all’ approach; and working to increase representation of marginalized groups in the development of AI technologies.

To protect human rights, it may be necessary to enhance the study of civics in Australia and New Zealand. While we believe that the existing human rights framework is substantially adequate for the challenges on the horizon, there may be a need for extending existing legal concepts such as liability to encompass decisions made by AI and protections for employees; or establishing ethical standards that will help to leverage the benefits of AI while also managing associated risks.

Proactive engagement, consultation and ongoing communication with the public about the risks and benefits of AI will be essential for building community awareness. Earning public trust will be critical to enable acceptance and uptake of the technology. Since AI is dependent on data, ensuring public trust is required to maximise its power: trust is not an optional add-on, but integral to the technology's adoption and use.

There is a need for initiatives that promote and provide broader digital literacy and understanding within society to support the transition to an AI future without marginalising sections of the community – particularly those with low digital literacy who risk being further isolated by lack of access. Community education initiatives should promote general knowledge and understanding of the principles of AI; how data is used; what it can and cannot achieve; and what we can and should expect from it. Explaining AI in such a manner will be critical to ensuring that individuals can make informed decisions about AI and how they use it in their everyday life. Education should also encompass the risks and opportunities of AI. The general public should be aware which risks are realistic. For example, AI technologies tend to impact on tasks rather than whole occupations, so the extent of disruption may be smaller than media outlets sometimes suggest. Education should bring the public to understand that the genuine risks are not inevitable but can be managed through intelligent policy.

Regulation and legislation

The prevalence of AI is growing rapidly. Ensuring its continued safe and appropriate development will be dependent on strong governance and a responsive regulatory system that encourages innovation. It will also be important to engender public confidence that the goods and services driven by AI are at, or above, benchmark standards and that they preserve the values that society strives for.

Australia and New Zealand's regulatory systems must limit adverse outcomes and engender public trust. Gaps in regulation, for example in automated decision-making technologies, raise significant human rights implications, especially regarding discrimination, implicit bias and undisclosed decision-making processes. It is therefore essential to identify where there are gaps in our regulatory frameworks in relation to AI so that these gaps can be addressed.

As proposed by Australia's Chief Scientist, Dr Alan Finkel, an ethical certificate or privacy labelling system could be created for low-risk consumer technologies such as smartphones or home assistant technologies. Such a system could be maintained by experts and consumer and industry groups and reviewed by an independent auditor.

Accessible infrastructure

To support successful implementation of AI, there is a need for effective digital infrastructure, including data centres and structures for data sharing, that makes AI secure, trusted and accessible. If such essential infrastructure is not carefully and appropriately developed, the advancement of AI and the immense benefits it offers will be diminished. However, Australia currently lacks adequate digital infrastructure which will inhibit the broad uptake of AI and reduce the benefits it offers, particularly for people in remote and rural communities. Australia and New Zealand's digital infrastructure development will need to expand and keep pace with international progress in telecommunications networks, cloud computing and data at scale, to ensure fast, secure and accessible connectivity.

Transparent and fair data collection

AI is enabled by access to data and will require high quality and comprehensive datasets that are accessible and useable for learning algorithms. The use of AI technologies to bolster data accumulation and aggregation can lead to positive societal benefits, particularly in areas such as healthcare and medicine. However, there are also potential negative impacts associated with data collection, including AI's ability to derive personal information from aggregated datasets, and related considerations of consent, privacy, and sharing. Transparent and fair data collection

policies and procedures are required and will be essential to building trust in how data is collected, accessed and used.

Workforce and training
Successful development and implementation of AI will require a broad range of new skills and enhanced capabilities that span the humanities, arts and social sciences (HASS) and science, technology, engineering and mathematics (STEM) disciplines. Human skills such as emotional literacy will become increasingly important for AI and subsequently for the education and training of AI specialists. Education systems will need to focus on elements of human intelligence and how to protect basic human rights and dignity alongside the curriculum. Further, ethics should be at the core of education for the people who are developing the technology.

Whilst the full extent of displacement of workers is uncertain, skills and role types are evolving, new jobs are appearing and there will be a need to respond to these changing workforce needs by proactively upskilling workers affected by this transformation. Consideration should be given to not only upskilling and reskilling workers specifically in AI, but also across other unrelated industries and roles. Not everyone who is affected by this transformation will reskill into AI-related roles.

Specific education and training programs will be essential for developing an appropriately skilled AI workforce. Specialists training will often need to augment established domain knowledge in fields such as health, energy, mining or transport and should be driven by deeper interactions between industry and the university sector. There also needs to be effort invested in ensuring diversity in AI training programs.

While many of the opportunities for AI remain on the distant horizon, our actions today will set a course toward or away from these opportunities and their associated risks. The complex nature of AI, and the multifaceted environments within which it operates, will require a holistic, collaborative and measured approach from government and industry to ensure its effective and ethical development and implementation. Rather than a single approach, a range of strategies will be required to confront the opportunities and challenges of AI. Much will depend on getting the right mix of global governance, local regulatory mechanisms, civic society participation, industry support and business compliance, and the development and deepening of digital understanding throughout populations will be of key importance.

ACOLA would be pleased to discuss the above submission, or any details of our AI Horizon Scanning project, with the AHRC. The contact at ACOLA is Dr Lauren Palmer, Director, Policy and Projects, on (03) 9864 0933 or lauren@acola.org.au. Further details of ACOLA's Horizon Scanning project on AI can be found on the ACOLA website at https://acola.org.au/wp/artificial-intelligence/ with its final Horizon Scanning report anticipated for public launch early in 2019.

Kinds regards,

Dr Angus Henderson
Chief Executive Officer, ACOLA Limited