

14 April 2020

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 Discussion Paper 2020

The Australian Council of Learned Academies (ACOLA) welcomes the opportunity to provide a submission to the Australian Human Rights Commission (the Commission) on its Human Rights and Technology discussion paper. We congratulate the Commission on the breadth and depth of the discussion paper and its well considered proposals, and acknowledge the extensive consultation process that led to this paper. We hope that this will inform robust discussions and action on the importance of human rights and technology.

As you are aware, ACOLA provides the platform for collaboration between Australia's Learned Academies. Through the fellowships of the learned academies, ACOLA brings more than 3,000 of the nation's most eminent scientists, researchers, scholars and practitioners together to inform national policy about complex multidimensional problems and emerging national needs.

We appreciate the Commission's consideration and references to ACOLA's recent work on artificial intelligence (AI), one of our Horizon Scanning reports commissioned by Australia's Chief Scientist, Dr Alan Finkel AO FAA FTSE FAHMS, for Australia's National Science and Technology Council. Delivered in collaboration with the Australian Academy of Health and Medical Sciences and the New Zealand Royal Society Te Apārangi, the study examined the social, legal, ethical, scientific and technological implications for broader use of AI.

While new technologies pose many challenges, they also have the potential to generate long-term growth and positive returns to society. A thorough and measured response from government, industry, academia and the community is needed to ensure responsible and sustainable development, implementation and management of emerging technologies moving forward.

ACOLA welcomes the proposals from the Commission and provides several high level comments related to these in the attached. Our position draws heavily on our AI report, many of which have been previously discussed with the Commission.

ACOLA specifically welcomes the Commission's Proposal 26 that, with appropriate support, ACOLA should undertake consultation on how to effectively embed the principles of 'human rights by design' in relevant degree and other courses in science, technology and engineering within the tertiary and vocational sectors.

ACOLA would be pleased to discuss the above submission, or any details of our AI Horizon Scanning project, with the Commission. Please contact [REDACTED], Director, Policy and Projects, on [REDACTED] or [REDACTED]

Regards,

[REDACTED]

[REDACTED]

Chief Executive Officer, ACOLA

ACOLA's Detailed Response to the Australian Human Rights Commission's Human Rights and Technology discussion paper

ACOLA firstly responds to Proposal 26 from the Commission's discussion paper, which calls upon ACOLA directly. We then provide high-level comments in response to the other proposals and questions raised by the Commission.

Proposal 26: Providers of tertiary and vocational education should include the principles of 'human rights by design' in relevant degree and other courses in science, technology and engineering. With appropriate support, the Australian Council of Learned Academies (ACOLA) should undertake consultation on how to achieve this aim most effectively and appropriately within the tertiary and vocational sector.

ACOLA agrees that the principles of 'human rights by design' should be embedded in education, training and capacity building, to ensure the people who develop and disseminate emerging technologies and systems do so in a manner that is accessible, ethical and respects human rights.

A deeper understanding of how this can be achieved will be critical to ensure these principles are appropriately embedded at the early stages of technology development.

We see that emerging technologies present opportunities to make society more inclusive, to improve living standards for people with a disability and those experiencing disadvantage, and increase the representation of minority groups. Increased focus on accessibility and human rights by design can minimise possible harm to society. Proactive engagement, consultation and ongoing communication will be critical to getting this right.

Incorporating 'human rights by design' principles, alongside initiatives that support a diverse workforce to design emerging technologies, will facilitate opportunities for access and uptake of emerging technologies by all members of our community and provide scope to overcome existing societal inequalities. If programmed with these principles from the beginning, we can facilitate beneficial and safe integration and opportunities between humans and emerging technologies.

Emerging technologies, including AI, have produced a surge in demand for workers in R&D and the implementation of technologies. Our AI report acknowledged that it will be important for Australia's future to build our talent base to develop and benefit from AI systems and technologies, and that a broad range of new skills will be needed. As a result, training and education for emerging technologies is in high demand and we need to get it right now, both for those still in school and those already in the workforce.

ACOLA's AI report noted that science, technology, engineering and mathematics (STEM) education and training across all levels should incorporate principles of ethics, accessibility, and inclusive and universal design to assist in the equitable development and deployment of AI technologies. Emerging technologies and their implementation will likely extend into *related or adjacent* disciplinary areas and fields, suggesting the need to scope where and how far 'human rights by design' education and training activities should extend.

Greater understanding on how principles of 'human rights by design' can best be taught, implemented and absorbed by future students and the workforce is required. ACOLA welcomes the Commission's proposal and stands ready, subject to appropriate support, to work with Government, the education sector and the wider community in undertaking consultation on how to effectively embed the principles of 'human rights by design' in relevant degree and other courses in science, technology and engineering within the tertiary and vocational sectors.

ACOLA's General Comments to the Australian Human Rights Commission's Human Rights and Technology discussion paper

ACOLA welcomes efforts to ensure the safe, responsible and strategic implementation of AI and other emerging technologies, which take into account the range of ethical, legal and social factors associated with research, development and uptake of these technologies. Initiatives to include adequate human rights protections in AI-informed decision making systems will be important as AI technologies are increasingly employed in social settings.

We provide the following high-level comments on the Commission's discussion paper, primarily drawn from ACOLA's AI report.

National Strategy on AI

ACOLA supports the need to develop a *National Strategy on New and Emerging Technologies* and welcomes proposals relating to the National Strategy. A national strategy that allows areas of major opportunity to be established while ensuring the range of social, ethical and legal challenges are embraced and held as core values for implementation would help support the safe, responsible and strategic development of emerging technologies.

A Strategy that presents a clear national direction, which integrates planning, regulation, leadership, education, and innovation, could help ensure that emerging technologies such as AI and the Internet of Things (IoT) are developed in a manner that specifically addresses national needs.

A national framework should articulate the interests of society, uphold safe implementation, be transparent and promote wellbeing. We note some progress has been made with Government releasing an AI Roadmap and Ethics Framework in late 2019.

Educating students and the workforce on human rights principles

A robust framework for education and training in emerging technologies should draw on the strengths of both STEM and HASS (humanities, arts and social sciences) perspectives to cultivate an interest in technologies from an early age and place a premium on encouraging diversity in areas of IT and engineering. This will help foster a generation of creative and innovative designers, practitioners, consultants, as well as a well-informed society.

In addition to including 'human rights by design' into tertiary and vocational education, ACOLA welcomes the proposal that professional accreditation bodies for engineering, science and technology should consider 'human rights by design' as part of continuing professional development. We note that this is an ongoing process that must be holistic and dynamic.

Standards and Checks on AI decision-making

The use of AI to assist in decision making has potential to advance human rights by enabling more informed decisions and potentially minimising direct and indirect discrimination by humans, who may act on their own prejudices.

However, as well as presenting important opportunities, ACOLA acknowledges that AI systems also have the potential to hinder social equality if they function unfairly or without sufficient oversight. Research has uncovered embedded biases in current AI systems, which disproportionately represent gender, race and minority populations. This has the potential to amplify discrimination and exacerbate existing inequalities.

Embedding 'human rights by design' at each stage of the design and implementation process, alongside consideration of a voluntary or legally enforceable certification scheme for AI technologies and systems, will be important.

ACOLA agrees that consideration should be given to developing a human rights impact assessment for AI-informed decision making products to be used in Australia, to ensure the positive and negative impacts of AI products are best understood. This should be developed, including how to implement and any consequences of not undertaking, in consultation with government, industry, regulatory and civil society bodies. ACOLA suggest that the research community should also be involved in this consultation process.

ACOLA also welcomes efforts aimed at ensuring emerging technologies are accessible. We also acknowledge that achieving greater cohesion in standards for AI and data use across industry and government will help to minimise the potential risks in its use and adoption.

In order to ensure human rights protections are implemented in practice, it will be important to instil effective regulation, governance and accountability measures alongside design principles.

Frameworks, Regulation and Innovation

Concerns about the human rights implications of AI have sparked calls for legal and professional ethical frameworks to govern the application and design of AI technologies. Statements of ethical principles, guidelines and declarations have emerged in the past decade, along with the establishment of ethical advisory boards in public, private, academic and technical communities.

Gaps in regulation for some aspects of AI technologies are a cause for concern. ACOLA notes that in addition to ordinary legislation, self-regulatory and co-regulatory approaches can promote and protect human rights in the context of new technologies. These approaches can include accreditation systems, professional codes of ethics and human rights-compliant design. These types of measures are generally led by industry participants and subject-matter experts. They may also influence the actions of manufacturers through the procurement process.

Australia makes an ideal test-bed for innovation in AI technologies due to its size, diverse environments, and educated workforce. This position may provide opportunities and incentives for industry and government to advance AI development beyond our international peers, thereby enhancing the need for safe testing environments for these technologies.

As such, ACOLA agrees that consideration should be given to establishing regulatory sandboxes to test AI-informed decision making systems. This could enable industry and government to test AI-informed decision-making systems before they are put to broader use.

Explainability for AI-informed decision-making

To ensure that all Australians can equally participate and engage with emerging technologies on a consenting basis, it is essential that Australians are informed about its uses and capabilities (including the associated opportunities and risks).

In the context of AI, it may be important to ensure the public are aware of instances where they are interacting with AI and also be informed in an accessible manner when their data is being collected and how it will be used. Notifying individuals about the use of AI systems will be important to ensure their capacity to appeal in instances of grievance. Transparency and explainability are important for establishing public trust and confidence in AI technologies. In addition, ensuring society has basic literacies in, and understanding of, AI systems and technologies will be important to build trust and making personal judgements on use, especially around data used and the potential risks and harms associated with AI systems.

ACOLA therefore welcomes efforts to make AI-informed decision-making accessible and intelligible to the community. Discussions of AI technologies are often polarising, and have a tendency to be approached with either extreme optimism or pessimism. Earning public trust will be critical to enable acceptance and uptake of these technologies. Proactive engagement, consultation and ongoing communication with the public about the changes and effects of emerging technologies will be essential for building community awareness and understanding. This information needs to be accessible to all of society and should promote general knowledge and understanding of the principles of emerging technologies.

ACOLA therefore also welcomes efforts to invest in research towards generating meaningful explanations for AI decision-making. We support the notion that centres of expertise should prioritise research on clearly communicating AI-informed decision-making to individuals and the community, however suggest that rather than prioritise research in this area, centres of expertise should set aside dedicated funding to support this. Further, ACOLA suggests that centres of expertise should be interdisciplinary in nature to ensure that considerations such as ethics, law and human rights align with the technical, mathematical and scientific aspects of information technology.

ACOLA notes, however, that explainability will not alone be a sufficient outlet for consumer protection.

Conclusion

ACOLA congratulates the Commission for their inclusive and comprehensive consultation with stakeholders across all sectors and interest groups, and welcomes the proposals from the Commission motivated to ensure human rights are protected.

AI decision-making has the potential to advance human rights by enabling more informed decisions, improving the accessibility to services, and minimising systemic bias. At each stage of development, checks and assessments at an interdisciplinary, holistic level are needed to ensure AI evolves in line with principles of human rights, regulatory mechanisms and societal acceptance. ACOLA looks forward to continuing to work with the Commission, and other stakeholders, to ensuring these are in place and that AI, and other emerging technologies, serve the betterment of all citizens.