



Discussion Paper Submission

Safe and Responsible AI in Australia | 4 August 2023

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Overview

We thank the Department of Industry, Science and Resources for the opportunity to make a submission in response to the Safe and Responsible AI in Australia discussion paper. We recognise the range of potential advantages that the adoption of AI can bring to both the public and private sectors. However, appropriate governance mechanisms are critical to ensure the responsible development of AI and to mitigate the accompanying risks. Accordingly, Australia's existing regulatory frameworks will need to evolve to accommodate the novel challenges posed by AI, and to ensure that adequate mechanisms are in place to address potential harms associated with its use.

This submission draws on our combined expertise as researchers in privacy, public law and digital technologies to outline a number of regulatory reform recommendations for safe and responsible AI in Australia. Our main recommendations, related to questions 1, 2, 6, 7 & 9 of the discussion paper, are that the Australian Government should:

- adopt different approaches to the regulation of AI in the public and private sectors.
- amend legislation to safeguard the availability of judicial review for fully or partially automated decisions.
- better understand the role of legal code in the digital compliance structures that will power AI/ML developments in the public and private sectors.
- introduce a statutory requirement for human oversight and review for public sector automated decision-making systems with serious consequences for individuals.
- consider approaches to harmonising data quality standards across all levels of government.

- consider the merits of design methodologies that promote transparency at all stages of AI development.
- reform federal and state freedom of information legislation, as well as government procurement practices, to facilitate open government ideals.

Q1. Do you agree with the definitions in this discussion paper? If not, what definitions do you prefer and why?

We do not contribute specifically to the discussion on core definitions except to add that the adoption of language incorporated internationally through the ISO standard appears to be a sensible way forward and should assist to align Australia with developments in other jurisdictions. Given the increasing standardisation of core concepts through legislation with extra-territorial reach, such as the EU's General Data Protection Regulation ('GDPR') framework, it would seem beneficial to adopt generally accepted definitions, rather than unique Australian constructions. However, it is important to note that the discussion paper solely focuses on definitions involving core technical processes of AI/machine learning (ML) without consideration of how different types of data/information could be used in those processes. Most notable is the absence of any definitional considerations of personal or sensitive information which is obviously relevant to the application of AI/ML systems. The current Attorney General's Department Review of the Privacy Act ('AG Review') is examining whether the definition of personal and sensitive information should be more aligned with the conceptual basis of the GDPR. It seems non-controversial, but nonetheless important, to consider core definitions for the range of information that will power AI/ML systems and ensure there is consistency across existing and future legal regimes.

Q2. What potential risks from AI are not covered by Australia's existing regulatory approaches? Do you have suggestions for possible regulatory action to mitigate these risks?

As noted in our response above, the discussion paper focuses squarely on the core conceptual processes of AI/ML and the risks arising from generated outputs. The paper tacitly acknowledges that the advent of new AI/ML will require major restructuring of data sharing and availability practices. Current processes are governed by a range of different legal frameworks as outlined in the paper. However, the paper does not engage deeply with the major information risks that could flow from widespread adoption of AI/ML processes and the concomitant requirements of industrialised, or government-wide, data sharing requirements. A major concern is information privacy and how the Australian Privacy Principles could apply to AI/ML driven technological structures. The AG Review appears to be suggesting stronger alignment between the *Privacy Act 1988* (Cth) and the GDPR.

We are strongly supportive of this alignment and repeat calls to better understand how alignment with the GDPR, and the possibility of broader alignments with other EU frameworks, such as the AI Act, could operate in Australia given the absence of an ostensible foundation of fundamental rights that guarantee stronger legal protections for Australian citizens.¹ It is clear that the Australian Government sees AI/ML as a core part of Australia's future digital economy and the digital governance structures it requires. These are by necessity driven by the types of technological components highlighted in the discussion paper. However, while these technical changes are necessary, they should not detract from the deeper and more critical issue of how Commonwealth law should best protect the fundamental rights of Australian citizens.

Applications involving the use of AI/ML also need to consider how both public and private sector organisations comply with legal and regulatory obligations, particularly in real-time workflows that produce automated forms of decision-making. Since 2018, we have

¹ Mark Burdon and Tegan Cohen (2023) *Submission to the Attorney General's Department Privacy Act Review Report* <https://eprints.qut.edu.au/242023/>.

produced research that outlines the complex challenges arising from the conversion of natural language legal and regulatory obligations into machine executable code that is intended to be used for digital compliance purposes.² Our research has shown that it is a complex and challenging task to produce machine executable legal code that is both functional from a business use perspective and aligns with legal expectations involving judicially approved processes of statutory interpretation.³ Digital compliance processes predicated on the application of legal code in automated decision-making ('ADM') systems will underpin the safe and responsible development of AI/ML in a more ubiquitous sense. The discussion paper is largely silent on this essential issue but it is nonetheless important to consider especially in relation to the development of new legal and regulatory structures, whether they be regulatory or self-regulatory in nature. A broader conceptual framing is required that considers how the technical components outlined in the discussion paper operate in current and future structures that are governed increasingly by automated forms of output built on legal code. As such, it is important to understand how digital compliance processes are conducted across the different logics and perspectives of legal, regulatory and computational based disciplines and professions.⁴

Q6. Should different approaches apply to public and private sector use of AI technologies? If so, how should the approaches differ?

² See, eg, Anna Huggins, Mark Burdon, Alice Witt and Nicolas Suzor, 'Digitising Legislation: Connecting Regulatory Mind-Sets and Constitutional Values' (2022) 14(2) *Law, Innovation and Technology* 325; Alice Witt, Anna Huggins, Guido Governatori and Joshua Buckley, 'Encoding Legislation: A Methodology for Enhancing Technical Validation, Legal Alignment and Interdisciplinarity' (2023) *Artificial Intelligence and Law*, <https://doi.org/10.1007/s10506-023-09350-1>; Anna Huggins et al, 'Submission No 196 to the Select Senate Committee on Financial Technology and Regulatory Technology' (Issues Paper Submission, 2020, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Financial_Technology_and_Regulatory_Technology/FinancialRegulatoryTech/Submissions); Anna Huggins, 'Addressing Disconnection: Automated Decision-Making, Administrative Law and Regulatory Reform' (2021) 44(3) *University of New South Wales Law Journal* 1048.

³ Mark Burdon et al, 'From Rules as Code to Mindset Strategies and Aligned Interpretive Approaches' (2023) *Journal of Cross-Disciplinary Research into Computational Law* (forthcoming).

⁴ Huggins et al, 'Digitising Legislation' (n 2 above); Burdon et al (n 3 above).

We believe that fundamental differences between the public and private sector necessitate different regulatory approaches to the use of AI. While private sector entities typically prioritise profitability, innovation, efficiency and corporate secrecy, traditional public sector principles of good administration include transparency, accountability, rationality, fairness and consistency. Government agencies are not subject to market forces and consumer choice like private entities. Consumers have the power to choose to engage with a different business for the delivery goods and services. However, there is no such freedom of choice in the delivery of government services. The potential risks from the misuse of AI can be heightened in the public sector. There is a significant power imbalance between the state and its citizens, and government use of AI can significantly impact the rights, interests and expectations of individuals. This warrants a higher degree of scrutiny and oversight of the public sector use of AI.

Australia's public law frameworks provide important mechanisms for regulating public sector use of AI, including safeguarding executive accountability and protecting individual rights and interests. However, regulatory reform is needed to address gaps in the application of Australia's existing public law frameworks to ADM systems, including to safeguard the contestability of automated government decisions and to ensure human involvement in certain high stakes government decisions.

Safeguarding the Contestability of Automated Government Decisions

There is some uncertainty about whether automated government decisions are judicially reviewable. The majority in *Pintarich v Deputy Commissioner of Taxation* held that a 'decision' under the *Administrative Decisions (Judicial Review) Act 1977* (Cth) ('ADJR Act') requires a mental process of deliberation.⁵ This casts doubt on the availability of judicial review under the ADJR Act because ADM, by its very nature, lacks the requisite human mental processes to satisfy this criterion.⁶ This creates an unacceptable risk that individuals

⁵ *Pintarich v Deputy Commissioner of Taxation* (2018) 262 FCR 41.

⁶ See Yee-Fui Ng and Maria O'Sullivan, 'Deliberation and Automation: When Is a Decision a "Decision"?' (2019) 26(1) *Australian Journal of Administrative Law* 21.

adversely affected by erroneous or unlawful ADM systems will have limited options for redress.⁷

We suggest that reform to clarify this legal uncertainty should be a priority for the Australian Government. One option is to amend the definition of a ‘decision’ in the relevant State and Commonwealth ADJR Acts to include decisions that are wholly or partly automated.⁸ Another approach is to modify specific legislation authorising ADM to clarify the availability of judicial review. For example, a deeming provision could be inserted into the respective legislation to confirm that any ADM decision is considered a decision of the authorised decision-maker. We suggest that the first option is preferable given it is inclusive and does not require modification to individual pieces of authorising legislation.⁹

Statutory Protections for Human Involvement in Government Decision-making

Existing public law frameworks presuppose that humans remain at the core of the decision-making process. Human oversight and intervention is important for identifying and addressing problems in administrative processes. This remains true for the use of automated systems by administrative agencies. Manual human reviews of the automated debt notices under the Centrelink Online Compliance system (commonly known as ‘robodebt’), for example, would likely have ameliorated many of the problems that arose during its operation. However, there are currently no statutory protections in place that require humans to oversee and review automated outputs.

We suggest that there should be legislative mechanisms in place that mandate human involvement for certain types of automated administrative processes, particularly decisions which have potentially serious consequences for individuals. This aligns with previous recommendations by the Australian Law Reform Commission and the Australian Human

⁷ Huggins, ‘Addressing Disconnection’ (n 2 above) 1061–1064.

⁸ Yee-Fui Ng et al, ‘Revitalising Public Law in a Technological Era: Rights, Transparency and Administrative Justice’ (2020) 43(3) *University of New South Wales Law Journal* 1041, 1066.

⁹ Ibid.

Rights Commission that suggest exploring ‘the degree of human involvement, if any, that should be required for particular types of decisions’.¹⁰ Some guidance can be sought from the GDPR. Article 22, in particular, prohibits solely automated decision-making that affects individual rights and interests by requiring ‘meaningful’ human involvement.¹¹ While there are exceptions, minimum protections are in place to ensure that affected individuals have a right to obtain human intervention, to express their views or to contest automated decisions.¹²

Q7. How can the Australian Government further support responsible AI practices in its own agencies?

Harmonised Data Quality Standards

The Australian Government should consider approaches to harmonising data quality standards across government, including its collection, management and use. The public sector use of ADM will become increasingly dependent on the exchange of data between administrative agencies. But Australia lacks unified data quality standards across Federal, State and Local Government agencies, including standard definitions, units of measurement and accuracy benchmarks.¹³ Administrative agencies therefore often have different approaches to how data is organised, characterised and structured.¹⁴ This kind of data

¹⁰ Australian Law Reform Commission, *The Future of Law Reform: A Suggested Program of Work 2020–25* (Report, December 2019) 24; Australian Human Rights Commission, ‘Human Rights and Technology’ (Final Report, 1 March 2021) 71.

¹¹ *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC* (‘GDPR’) [2016] OJ L 119/1 arts 22(2)(a)–(c). See also Article 29 Data Protection Working Party, ‘Guidelines on Automated Individual Decision-Making and Profiling for the Purposes of Regulation 2016/679’ (Guidelines No WP251rev.01, 6 February 2018) 20-21 <https://ec.europa.eu/newsroom/article29/item-detail.cfm?item_id=612053>.

¹² GDPR (n 11 above) art 22(3).

¹³ *Data Availability and Use: Productivity Commission Inquiry Report* (Australian Government, Productivity Commission, March 2017) 159–164.

¹⁴ Public sector data is often fragmented, meaning administrative agencies rarely have enough data to accurately model an outcome of interest in the absence of inter-agency data sharing: Fola Malomo and Vania Sena, ‘Data Intelligence for Local Government? Assessing the Benefits and Barriers to Use of Big Data in the Public Sector’ (2017) 9(1) *Policy & Internet* 7, 9–10. See also Andrew Iliadis, ‘The Tower of Babel Problem: Making Data Make Sense with Basic Formal Ontology’ (2019) 3(6) *Online Information Review* 1021.

fragmentation can have detrimental impacts on the quality of the data, and consequently, the validity of ADM outputs.

We note that the *Data Availability and Transparency Act 2022* (Cth) introduced a legislative scheme for sharing Australian Government data. However, the Act does not contain any stipulations regarding data quality. Only the Australian Privacy Principles, enacted through the *Privacy Act 1988* (Cth), impose an obligation on all private and public sector entities to ensure the quality and accuracy of information they hold.¹⁵

One potential solution is for the Office of the National Data Commissioner, as the national regulator for Australian Government data sharing, to provide advice and guidance on inter-agency data quality standards. This might include, for example, technical best practice for the collection, management and use of government data nationwide.

Q9. Given the importance of transparency across the AI lifecycle, please share your thoughts on:

- a. where and when transparency will be most critical and valuable to mitigate potential AI risks and to improve public trust and confidence in AI.**
- b. mandating transparency requirements across the private and public sectors, including how these requirements could be implemented.**

Transparency by Design

We recommend consideration of design methodologies that promote transparency at all stages of development. In particular, the Government should consider:

- a) mandating technical and organisational record-keeping across the AI lifecycle. Contemporary technical and interdisciplinary scholarship has developed a suite of valuable tools for recording and disclosing information at different stages of the AI

¹⁵ *Privacy Act 1988* (Cth), sch 2 s 10.

lifecycle. This includes data documentation and provenance methods,¹⁶ model performance cards,¹⁷ auditing processes and logging mechanisms.¹⁸ Organisational record-keeping is equally as important. Documentation about impact assessments, procurement processes and broader organisational choices should also be publicly available for scrutiny.¹⁹

- b) adopting inherently transparent and interpretable AI systems in high-stakes settings. AI complexity is a significant impediment to meaningful transparency.²⁰ Such inscrutability is often a symptom of system design.²¹ The more sophisticated kinds of machine learning models are not always necessary to achieve organisational goals. Nor do more complex models necessarily lead to better predictive performance.²² It is often possible to achieve good predictive performance with much simpler machine learning models.²³ Accordingly, simpler and inherently transparent AI systems should be used in domains where automated outputs will have significant consequences for affected individuals.
- c) consider the merits of acceptance test driven development ('ATDD') methodologies. ATDD approaches, such as the development of interdisciplinary 'user stories', can close the understanding gap between policy designers and developers of ADM systems, while also generating concise natural language documentation which can convey the intent of specific system operations. While ethical guidelines can be useful,

¹⁶ Timnit Gebru et al, 'Datasheets for Datasets' [2018] *arXiv:1803.09010 [cs]* <<http://arxiv.org/abs/1803.09010>>.

¹⁷ Margaret Mitchell et al, 'Model Cards for Model Reporting' (Conference Paper, Conference on Fairness, Accountability, and Transparency, 2019) <<https://arxiv.org/abs/1810.03993v2>>.

¹⁸ Joshua A Kroll, 'Outlining Traceability: A Principle for Operationalizing Accountability in Computing Systems' (Conference Paper, Conference on Fairness, Accountability, and Transparency, 2021) <<https://dl.acm.org/doi/10.1145/3442188.3445937>>; Jatinder Singh, Jennifer Cobbe and Chris Norval, 'Decision Provenance: Harnessing Data Flow for Accountable Systems' (2019) 7 *IEEE Access* 6562.

¹⁹ Jennifer Cobbe, Michelle Seng Ah Lee and Jatinder Singh, 'Reviewable Automated Decision-Making: A Framework for Accountable Algorithmic Systems' (Conference Paper, Conference on Fairness, Accountability, and Transparency, 2021) <<http://doi.org/10.1145/3442188.3445921>>.

²⁰ Jenna Burrell, 'How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms' 3(1) *Big Data & Society* 1, 4–5.

²¹ Joshua A Kroll, 'The Fallacy of Inscrutability' (2018) 376(2133) *Philosophical Transactions of the Royal Society of London* 20180084.

²² Cynthia Rudin, 'Stop Explaining Black Box Machine Learning Models for High Stakes Decisions and Use Interpretable Models Instead' (2019) 1(5) *Nature Machine Intelligence* 206.

²³ Ibid.

AI developers cannot always map principles to practical development.²⁴

- a. Ethical User Stories²⁵ have been proposed to increase alignment of ADM systems²⁶ by outlining links between abstract ethical values and functional requirements.²⁷ A preliminary study comparing the use of ECCOLA,²⁸ a methodology for ethical user story construction, with standard user story approaches, revealed that the former produced noticeably more ‘human-centric’ user stories, while standard user story methods generated significantly more ‘technology-centric’ user stories.²⁹ The study further showed that, when compared to an independent user story evaluation model,³⁰ the ECCOLA method produced higher-scoring stories, indicating that even beyond ethical considerations, there is value for developers and other stakeholders in adoption of the method.³¹
- b. Value sensitive design³² methodologies such as participatory design have been increasingly explored to embed desired values into AI systems.³³ These approaches reduce the likelihood of marginalised groups being unfairly impacted.³⁴ They have been used to shift the design of legal AI systems’ goals

²⁴ Ville Vakkuri et al, ‘ECCOLA — A Method for Implementing Ethically Aligned AI Systems’ (2021) 182 *Journal of Systems and Software* 111067; Erika Halme et al, ‘How to Write Ethical User Stories? Impacts of the ECCOLA Method’ in Peggy Gregory et al (eds), *Agile Processes in Software Engineering and Extreme Programming* (Springer International Publishing, 2021) 37.

²⁵ Ethical user stories differ from standard user stories in that the former also considers non-functional user requirements: Erika Halme et al, ‘Ethical User Stories: Industrial Study’ in *Joint Proceedings of REFSQ-2022 Workshops, Doctoral Symposium, and Posters & Tools Track* (CEUR-WS, 2022) 5.

²⁶ Ibid; Halme et al, ‘How to Write Ethical User Stories’ (n 24 above) 36.

²⁷ Qinghua Lu et al, ‘Towards a Roadmap on Software Engineering for Responsible AI’ in *Proceedings of the 1st International Conference on AI Engineering: Software Engineering for AI* (Association for Computing Machinery, 2022) 101, 105 <<https://dl.acm.org/doi/10.1145/3522664.3528607>>.

²⁸ Vakkuri et al (n 24 above).

²⁹ Halme et al, ‘How to Write Ethical User Stories’ (n 24 above) 45-46, 49.

³⁰ Luigi Buglione and Alain Abran, ‘Improving the User Story Agile Technique Using the INVEST Criteria’ in *2013 Joint Conference of the 23rd International Workshop on Software Measurement and the 8th International Conference on Software Process and Product Measurement* (2013) 49.

³¹ Halme et al, ‘How to Write Ethical User Stories’ (n 24 above) 46-47, 49-50.

³² Batya Friedman, ‘Value-Sensitive Design’ (1996) 3(6) *Interactions* 16.

³³ Steven Umbrello, ‘Beneficial Artificial Intelligence Coordination by Means of a Value Sensitive Design Approach’ (2019) 3(1) *Big Data and Cognitive Computing* 5.

³⁴ See, eg, Q Vera Liao and Michael Muller, ‘Enabling Value Sensitive AI Systems through Participatory Design Fictions’ (No arXiv:1912.07381, arXiv, 12 December 2019) <<http://arxiv.org/abs/1912.07381>>.

and methods from computer scientists to legal experts, as well as decrease the knowledge gaps between such domain experts.³⁵ Further, participatory design has a history of being used in the development of expert systems to reduce abstraction,³⁶ thereby encouraging the development of decision-making systems which can be understood with limited computational proficiency. Participatory design can be used across various points of development.³⁷ Like ethical user story approaches, they generate artifacts which are collaboratively constructed by computer scientists and domain experts alike.³⁸ Accordingly, they can be used to audit and understand the goals and methods of ADM systems. In this way, the implementation of ethical user stories or participatory design methodologies generates transparency as a by-product, and therefore may be palatable to developers concerned about inefficiencies and the costs of compliance with transparency mandates.

Safeguarding Transparency in the Government Use of AI

Transparency and explainability are critically important for all uses of AI, but they are especially crucial in the public sector where there is an expectation of higher standards of transparency and accountability. AI systems used in the public sector should be sufficiently transparent to permit public scrutiny and facilitate contestation where necessary. In line with open government and transparency ideals, we recommend introducing the following regulatory reform solutions aimed at tackling AI opacity barriers in the public sector:

- a) Reforming federal and state freedom of information legislation to ensure that sufficient information about Government AI can be obtained by individual citizens, media and civil society groups. Government refusal of some freedom of information

³⁵ Fernando Delgado, Solon Barocas and Karen Levy, 'An Uncommon Task: Participatory Design in Legal AI' (2022) 6(CSCW1) *Proceedings of the ACM on Human-Computer Interaction* 51:1-51:23, 51:2, 51:5.

³⁶ Ibid 51:5.

³⁷ Douglas Zytka et al, 'Participatory Design of AI Systems: Opportunities and Challenges Across Diverse Users, Relationships, and Application Domains' in *Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems* (Association for Computing Machinery, 2022) 1, 2 <<https://dl.acm.org/doi/10.1145/3491101.3516506>> ('Participatory Design of AI Systems').

³⁸ Jeanette Blomberg, Lucy Suchman and Randall H Trigg, 'Reflections on a Work-Oriented Design Project' (1996) 11(3) *Human-Computer Interaction* 237.

requests was identified as a significant impediment to meaningful scrutiny of the Centrelink online compliance intervention scheme.³⁹

- b) Establishing public sector procurement standards that prioritise transparency over commercial secrecy and outline what specific information administrative agencies are required to collect and disclose about AI systems in use.⁴⁰ These standards should also be used to facilitate openness in freedom of information requests when AI-systems are developed by, or in conjunction with, private contractors.
- c) Instituting a proactive disclosure regime containing a public register of Government AI systems in use, as well as public disclosure of technical documentation sufficient to facilitate external scrutiny and individual contestation. Ideally, government agencies should be required to make the source code of AI publicly available. We recognise, however, that source code transparency alone may be insufficient for achieving meaning accountability and transparency in AI systems,⁴¹ particularly for adversely affected individuals.⁴² Therefore, in addition to source code disclosure, technical and organisational documentation of coding decisions should also be made publicly available.
- d) Modifications to the ADJR Act that explicitly require the provision of a statement of reasons for all decisions made by, or in reliance on, an ADM system. Reasons are essential for the contestation of automated administrative decisions. Affected persons should be able to understand the rationality behind a decision and be given enough information to contest it where necessary. However, we note that there is significant doubt about the ability for fully automated AI systems to produce ‘legally

³⁹ See Ashlynn McGhee, ‘Centrelink Debt Recovery Program: Department Rejects FOI Requests Relating to Plagued Scheme’, *ABC News* (online, 10 February 2017) <www.abc.net.au/news/2017-02-10/centrelink-debt-recovery-program-foi-requests-rejected/8258564>.

⁴⁰ Catherine Holmes, *Royal Commission into the Robodebt Scheme* (Report, 2023) 656–657.

⁴¹ Joshua A Kroll et al, ‘Accountable Algorithms’ (2016) 165(3) *University of Pennsylvania Law Review* 633, 647–650.

⁴² See, eg, Mike Ananny and Kate Crawford, ‘Seeing without Knowing: Limitations of the Transparency Ideal and Its Application to Algorithmic Accountability’ (2018) 20(3) *New Media and Society* 973; Deven R Desai and Joshua A Kroll, ‘Trust but Verify: A Guide to Algorithms and the Law’ (2017) 31(1) *Harvard Journal of Law and Technology* 1.

compelling' reasons for decisions.⁴³ Technical explanations, including those produced by modern explainability tools, often fall short of providing the type of reasons needed to facilitate understanding and contestation of an administrative decision. Reasons must go beyond the logic of *how* the decision was made and include reasons as to *why* the decision was made.⁴⁴ In circumstances where this is not possible, we suggest that ADM should not be used for government decision-making purposes.

*** About QUT's Digital Media Research Centre**

The Digital Media Research Centre ('DMRC') at the Queensland University of Technology is a leading research centre in digital humanities and social science research with a focus on digital communication, media, and the law. Our research programs investigate digital inclusion and participation, the digital transformation of media industries, the growing role of AI and automation on digital societies and the role of social media in public communication. Scholars in the DMRC are undertaking important research on many of the concerns raised by the discussion paper. This includes ongoing work to investigate the development of regulatory regimes to address emerging risks for AI and ADM.

⁴³ Will Bateman, 'Algorithmic Decision-Making and Legality: Public Law Dimensions' (2020) 94(1) *Australian Law Journal* 520, 527.

⁴⁴ Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) *Legal Studies* 1, 22.