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Dept of Prime Minister and Cabinet
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# Submission on Positioning Australia as a Leader in Digital Economy Regulation: Automated Decision Making and AI Regulation Issues Paper

## About us

The **UNSW Allens Hub for Technology, Law and Innovation** ('UNSW Allens Hub') is an independent community of scholars based at UNSW Sydney. As a partnership between Allens and UNSW Law and Justice, the Hub aims to add depth to research on the diverse interactions among technology, law, and society. The partnership enriches academic and policy debates and drives considered reform of law and practice through engagement with the legal profession, the judiciary, government, industry, civil society and the broader community. More information about the UNSW Allens Hub can be found at http://www.allenshub.unsw.edu.au/.

We are happy to discuss this submission further with the policy team, including by organising a policy roundtable with us and other academics.

## About this Submission

We are grateful for the opportunity to make a submission on the Discussion Paper. Our submission reflects our views as researchers; they are not an institutional position. This submission can be made public.

Our main points relate to:

1. the framing of "regulatory barriers" and the framing around "adoption" as necessarily positive;
2. the need to change the current regulatory framework for LegalTech;
3. the complexity arising from jurisdictional differences in a variety of applicable legal frameworks;
4. the importance of funding research;
5. suggestions for reforming patent law to facilitate local innovation;
6. examples of how systems might have adverse implications for vulnerable groups or involve discrimination against such groups;
7. the fact that there are situations in which the use of AI/ADM is not appropriate; and
8. the importance of avoiding the EU's approach to regulation *of* AI.

## Question 1

***What are the most significant regulatory barriers to achieving the potential offered by AI and ADM? How can these barriers be overcome?***

While legal requirements can pose "barriers" to particular kinds of activity, the framing of this question is not helpful. First, the term "regulation" is not necessarily the right one for the question because the term "barrier" implies a mandatory requirement whereas the term "regulation" is often used rather than "law" to signal a broader set of activities (including, for example, voluntary standards). So regulation will only be a "barrier" (as opposed to an incentive or disincentive) where it is mandatory.

Second, legal requirements can be facilitatory rather than pose obstacles and can enhance reliability and trustworthiness. For example, a requirement to drive on the left hand side of the road enables traffic flow and a requirement to wear seatbelts enhances road safety. Similarly, requirements that have to be met by AI and ADM have rationales behind them. For example, administrative law requirements should not be viewed as a "barrier" to automation, but rather government should aim to meet or exceed such requirements as acting transparently, lawfully and fairly and respecting the equality and dignity of citizens. While the government could hypothetically increase the use of AI and ADM by specifying that decisions using such techniques were not subject to ombudsman or merits review and that the design of and rationale for such systems were exempted from freedom of information legislation, this would not be desirable and would reduce trust in government processes. Similarly, privacy law (also undergoing review in the Attorney-General's Department) no doubt limits the potential of AI, and particularly machine learning, but for valid policy reasons. Good government principles – from accountability to data protection – might be costly and might impact on the circumstances in which ADM and AI are deployed, but should not be framed as "barriers" to be overcome.

Thus rather than asking "*What are the most significant regulatory barriers to achieving the potential offered by AI and ADM?*", a better question is "*Are there legal requirements that are no longer fit for purpose in the context of the use of AI and ADM?*". The follow up question would then be *"Should these requirements change in order to facilitate the new activities in line with their underlying policy goals?"* Or, more broadly, "*What law reform might be desirable in light of developments in ADM and AI?"*

This is a broad question, but one can also make it more specific. Consider the use of AI and ADM in legal services in the form of "LegalTech". Here, existing legal requirements (based around regulation of the legal profession) are not fit for purpose. The uncertainty about the rules and indeed their absence make it hard for lawyers to confidently use AI tools. Moreover, it is risky for consumers to rely on them, whether they are accessing them through a lawyer or directly via non-lawyer providers of legal services. Ideally, a set of rules operating in the space of "LegalTech" would enhance the trustworthiness of AI systems, providing some protections to consumers analogous to that provided to clients of human lawyers. Meanwhile, those providing services using such tools, whether or not they are licensed to practise law, would have a clear sense of what was and was not permitted and what liability risks were associated with different tools and contexts. While there are risks too of over-regulation, rules and liability risks ought to be similar whatever the status is of provider (lawyer or 'non-lawyer') so that responsibility is evenly distributed. Failure to do so might unfairly

'tilt the playing field' toward those non-lawyers offering products and services in an unregulated context. The motivation for licensed professionals to retain and enact one's professional duties if others can offer similar services without regulatory controls needs to be considered. These ideas and the balances and decisions they involve can be transferred to other professions.

## Question 2

***Are there any specific examples of regulatory overlap or duplication that create a barrier to the adoption of AI or ADM? If so, how could that overlap or duplication be addressed?***

There is overlap, duplication and inconsistency in the regulation of AI and ADM. For example, if machine learning models need to be trained on data from different jurisdictions and sectors, different privacy laws will apply – often pointing in similar directions but with subtle differences that increase compliance costs. Similarly, there are different requirements for health records in different states and territories. Requirements may also come from elsewhere, including those imposed by organisations as a condition of agreement to share data.

Because AI and ADM are not subject to a technology-specific legal framework (and rightly so), this question extends to all legal requirements that apply to AI and ADM (or to components of systems using these techniques). While this is thus very broad, it might help to start with areas where there are significant differences among states and territories. In the context of LegalTech, two (soon to be three) states have adopted the Legal Profession Uniform Law, but there remains the potential for inconsistent decisions being reached on whether particular services can be offered using AI/ADM.

## Question 3

***What specific regulatory changes could the Commonwealth implement to promote increased adoption of AI and ADM? What are the costs and benefits (in general terms) of any suggested policy change?***

One thing the Commonwealth could do to increase adoption of AI and ADM is fund research examining how systems can be deployed legally and appropriately, and on what law reform might be required to facilitate that. Specific questions might include

- how AI systems can be implemented in government decision-making consistently with rule of law values and administrative principles;
- how laws regulating the legal profession can be clarified as to the circumstances in which lawyers and others can provide services through ADM and AI.

## Question 4

***Are there specific examples where regulations have limited opportunities to innovate through the adoption of AI or ADM?***

We are aware of a situation where a not-for-profit legal centre wished to use an expert system to provide legal information to users, but was concerned about the implications for their practising certificate. This falls out of the concern raised earlier that laws regulating the legal profession are not clear as to the circumstances in which legal services can be delivered in this way. We are aware more broadly that some legal technology providers and law firms would like to innovate

further in how they deliver services but are discouraged from experimentation because of the strict regulatory regime applying to legal practice and the unwillingness of (some) regulators to encourage creativity in this area.

Intellectual property plays a key role in encouraging innovation and impacts artificial intelligence, ADM and robotics.[1] In respect to patents for AI and ADM applications, Australia is in a precarious position – lagging many key innovation races.[2] In the applications of machine learning, China holds '73 per cent of total machine learning related patents filed.[3] The most patent filings are for speech recognition and use of Natural language processing (NLP) followed closely by capabilities in computer vision for imaging and video analysis.

This means in order to manufacture or apply uses of AI and ADM in Australia within agriculture (imaging for crop and soil monitoring, to predictive analytics), finance (algorithmic trading, Robo-advisors); health care (imaging diagnostics, speech assistants) or property valuations,[4] businesses need to integrate patented processes in foreign-owned technological supply chains.[5] This requires complex licensing arrangements.[6]

Therefore, Australian businesses could enhance their ability to innovate new technologies in this arena through policy improvements in the sector of intellectual property, particularly the patent regime. This could include consultation with IP Australia, whose automated preliminary search tools may also provide scope for patent pools and public sector licensing. Other approaches include harmonisation with international efforts – such as innovation prizes for research and development

[1] Lucas Baird, 'Copyright Law Must Be Amended to Account for Artificial Intelligence', Australian Financial Review, 1 January 2019, https://www.afr.com/business/legal/copyright-law-must-be-amended-toaccount-for-artificial-intelligence-allens-20181227-h19hmb; Rita Matulionyte, 'Australian Copyright Law Impedes the Development of Artificial Intelligence: What Are the Options?' IIC International Review of Intellectual Property and Competition Law 52, 417–443 (2021), https://doi.org/10.1007/s40319-021-01039-9.

[2] WIPO, Technology Trends 2019: Artificial Intelligence, Geneva: WIPO, 2019.

[3] "Machine Learning Innovation: A Patent Analytics Report" Australian Computer Society (ACS) for IP Australia. December 2019, https://www.ipaustralia.gov.au/tools-resources/publications-reports/patent-analytics-report-machine-learning-innovation.

[4] M Johnston (4 October 2019) UNSW partners with govt, industry for AI land valuation, ITNews, https://www.itnews.com.au/news/unsw-partners-with-govt-industry-for-ai-land-valuation-531896.

[5] Robert Williamson, Chelle Nic Raghnaill, Kirsty Douglas, and Dana Sanchez, "Technology and Australia's Future: New technologies and their role in Australia's security, cultural, democratic, social and economic systems" (2015).

[6] Stefan Wagner, 'Are Patent Thickets Smothering Innovation?' Yale Insights, 22 April 2015, https://insights.som.yale.edu/insights/are-patent-thickets-smothering-innovation.

to address problem solving challenges in the field of AI and robotics; adopting a right to repair legislation; and a clearer alignment with consumer protections.[7]

## Question 5

***Are there opportunities to make regulation more technology neutral, so that it will apply more appropriately to AI, ADM and future changes to technology?***

To the extent that this requirement is about requirements set out in legislation, there are mechanisms when drafting legislation to ensure that it is more technology-neutral (in the sense that it adapts well to ongoing changes in technology). However, considering the term "regulation" more broadly, it is difficult to parse the question. In many cases, what is sought to be influenced is something quite technology-specific, as in the case of technical standards. So, for example, the AI management system standard in development (ISO 42001) is *about* AI and focuses on AI-specific controls, but links to a broader set of management system standards. There is, in such contexts, little rationale for technological neutrality – the entire point is help organisations apply the broader principles to the specific technological context.

Turning from regulation to law, technology neutrality in legislative drafting is not an end-state, as explained in research by one of us,[8] but is rather a question of optimising alignment between legislative goals and word choice. So, by way of example, requiring that cars be "safe" is more technology neutral than requiring that cars be equipped with specific safety devices, but is also too vague to be effective. Focusing on performance can enhance technological-neutrality but still has limitations – for example a requirement that a car be able to stop in a particular time-frame only seems technologically neutral as it disfavours alternative technological means to achieve safety (such as relying on AI to identify the hazard earlier so that the stopping time can be longer without compromising safety). However, one can think carefully about words that imply a particular technological moment – many of the definitions of "artificial intelligence" suggest a particular technological framing that makes the term unsuitable for legislation. For more information on the theory of technological neutrality in legislative drafting, we refer to the articles cited at footnote 8 and the broader literature on this topic. We are also happy to work with the government, at the appropriate time, to help to increase technological neutrality in the formulation of legislation in this area.

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[7] Matthew Rimmer, 'The Right to Repair: Patent Law and 3D Printing in Australia' Journal of Law, Technology, and Society 2021, Available at https://ssrn.com/abstract=3690134 or http://dx.doi.org/10.2139/ssrn.3690134; Michael Guihot, and Matthew Rimmer. "Artificial Intelligence: Governance and Leadership-A submission to the Australian Human Rights Commission and World Economic Forum." Australian Human Rights Commission and World Economic Forum, 2019.

[8] Lyria Bennett Moses, 'Regulating in the Face of Sociotechnical Change' [2017] The Oxford Handbook of Law, Regulation and Technology <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199680832.001.0001/oxfordhb-9780199680832-e-49>; Lyria Bennett Moses, 'Recurring Dilemmas: The Law's Race to Keep Up with Technological Change' (2007) University of Illinois Journal of Law, Technology and Policy 239.

## Question 6

***Are there actions that regulators could be taking to facilitate the adoption of AI and ADM?***

We would argue that "facilitate the adoption of AI and ADM" ought not be the goal. The desirable end state is not *more* diffusion of technology but that it is used in circumstances where it provides a solution to a problem, for example by improving access to certain services, and the efficiency, accuracy, consistency and predictability of decision-making in appropriate contexts.

For example, in the legal context, some commentators argue that non-lawyer, technology-driven legal services are 'the only workable solution to the access to justice gap'.[9] Meanwhile, in some settings, such as classification of documents in discovery, a lawyer's work might be more accurately and certainly more efficiently completed via technology instead or where the technology acts as a form of oversight.

Again, these issues need to be approached carefully: while some argue that consumers should be free to choose cheaper legal service options even if those services lack the professional obligations of a lawyer, information asymmetry may mean that those least well-placed to evaluate the quality of non-lawyer legal services will be more reliant on them for reasons of affordability. Of course, that information asymmetry arises in relation to both lawyer-provided and non-lawyer-provided legal services – the difference being the professional obligations owed by the lawyer which make the lawyer accountable. As above, these issues transfer to other contexts, such as medicine and financial services.

## Question 7

***Is there a need for new regulation or guidance to minimise existing and emerging risks of adopting AI and ADM?***

Again, reframing this, there is a need for law reform across domains that apply to AI and ADM including data privacy laws, discrimination laws and consumer protection laws. There are also new standards being developed for AI and related technologies by both ISO IEC JTC 1 SC 42 (see the Standards Australia submission) and IEEE. In particular, Standards Australia is working on international standards on issues such as data provenance, bias, and explainability.

Regulation and guidance alone is not always sufficient to guard against risks, particularly in the context of government developing ADM systems. Again, Robodebt is a good example. There were guidelines in place which were not followed.[10] Stronger, independent oversight may be required to ensure guidelines and best practice principles are followed.

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[9] Dana Remus and Frank Levy, 'Can robots be lawyers: Computers, lawyers, and the practice of law' (2017) 30 *Geo. J. Legal Ethics* 501, 544.

[10] Commonwealth Ombudsman, 'Automated Decision-Making Better Practice Guide' (2007) (Updated in 2019: https://www.ombudsman.gov.au/publications/better-practice-guides/automated-decision-guide).

Turning again to the legal context though with transferable themes, two of our authors, Bell and Rogers, recently published an article that outlines what they see as three legal/regulatory options for LegalTech,[11] whether the technology is operated by lawyers or accessed by consumers without lawyer involvement. The first regulatory option is to continue as is (with the conduct and practice rules remaining in place for lawyers, but not for non-lawyers) and the possible further deregulating of legal services generally. In jurisdictions such as Australia and North America, actions for unauthorised legal practice continue to be the principal means for legal regulators to regulate legal services provided direct to consumers by non-lawyers. Bell and Rogers then provide two more possibilities. The first option is described as 'passive', because it is contingent on the actions of governments or other regulators. Accordingly, regulation would occur via piggybacking on any forthcoming regimes aiming to govern artificial intelligence applications more broadly, or would harmonise with a separate regime regulating individuals within the tech industry. The second possibility is referred to as 'active', as it relies on an expansion of the current legal regulatory system, which is based on individual discipline of lawyers, to something including elements of entity-regulation (or regulating the entire organisation/workplace).

## Question 8

***Would increased automation of decision making have adverse implications for vulnerable groups? How could any adverse implications be ameliorated?***

It is possible that increased automation of decision making will have adverse implications for vulnerable groups, either because they are the only group targeted (as in the case of Robodebt) or because machine learning, as a kind of data-driven inferencing, can lead to various types of bias. There are diverse sources for such bias, including the choice of training data and the choice of model. It is thus important to optimise systems, not only for accuracy, but also for different kinds of unfairness. Further, legal obligations around algorithmic discrimination should be clarified through amendments to discrimination laws. Ideally, organisations that take a proactive approach of testing their systems for disparate impact will not be discouraged through the idea that omitting variables is legally "safer". Technical standards for bias are also being introduced by both ISO/IEC JTC1 SC 42 and the IEEE (as P7003).

This is a very broad question and answering it may be highly sector-dependent. Consider, for example, the aged care sector. Australia's older generation (those aged 65 and over) continues to grow in population and is projected to more than double by 2057. The ageing of the population creates pressures in the staffing opportunities for Australia's aged care, health and welfare sectors.[12] AI/ADM technologies, such as assistive medical robotics, may supplement understaffing in the aged care sector but also become testbeds for prototypes, such as fall detection camera systems and the application of biometrics (with a potential for privacy conflicts in use of sensitive information, such

[11] Felicity Bell and Justine Rogers, "'Fit and proper' coders? How might legal service delivery by non-lawyers be regulated?" (2022) *Legal Ethics* 22-29 (for discussion of regulatory options).

12 Australian Institute of Health and Welfare: Older people Report, 30th November 2021, https://www.aihw.gov.au/reports-data/population-groups/older-people/reports

as speech and face recognition). Adverse implications could be ameliorated by the development and use of AI and ADM that include protections for sensitive information and the rights of aging people, especially as aged care residents tend to be viewed in a homogenous way, which ignores their different cultures, religions, socioeconomic backgrounds, physical or cognitive capabilities.[13] What is important here is that AI-based technologies be visible, transparent and accountable and that informed consent be given to their use. This is particularly challenging for cognitive assistive technologies.[14] These issues are quite sector-specific; the bias issues for AI/ADM in education would look quite different. But some of the lessons are universal including the need for co-design and consultation, deep analysis of impacts (including possibly new research), and consideration of individual rights (such as the right to consent to medical care).

## Question 9

***Are there specific circumstances in which AI or ADM are not appropriate?***

Yes, there are circumstances in which AI and ADM are not appropriate. For example, it is not appropriate to use data-driven inferencing purely based on predictive metrics in a context such as sentencing.[15] This is because this runs contrary to the rule of law value of equality before the law and, in the case of most systems on the market, is not based on publicly available methods and hence lacks transparency. Automated face identification at scale, for example using Clearview AI, or other automatic collection of biometric data would also be inappropriate. Care must also be taken where government agencies use automated biometric matching to enhance efficiency (as in the case of voice recognition for customers seeking access to services) without considering the impact on privacy and security.

There are also broader concerns that laws will be designed to be administered automatically, with a preference for rules at the expense of fairness. The UK's universal credit system is a good example.[16] People's circumstances differ, and government decision-making systems must be capable of accommodating these differences to achieve a fair, equal and just society. Where decisions involve vulnerable people (especially social security and some immigration decisions), government must ensure that services are accessible to those groups. That might mean retaining manual processing options. It will often mean retaining humans in the decision-making loop and exceptions to rules (that is, discretion) to accommodate vulnerable people's specific circumstances.

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[13] Alan Petersen, Neves, Barbara, Carter, Adrian and Mor Vered, 'Aged care is at a crossroads – can AI technologies help?' Politics and Society, Monash University, 17 September 2020. https://lens.monash.edu/@politics-society/2020/09/17/1381344/aged-care-is-at-a-crossroad-can-ai-technologies-help.

[14] J Boger J, V Young, J Hoey, T Jiancaro, A Mihailidis, 'Zero-effort Technologies: Considerations, Challenges, and Use.' In Health, Wellness and Rehabilitation (2018), Williston: Morgan & Claypool.

[15] Monika Zalnieriute, Lyria Bennett Moses and George Williams, 'The Rule of Law and Automation of Government Decision-Making' (2019) 82 The Modern Law Review 425.

[16] See: *Secretary of State for Work and Pensions v Johnson* [2020] EWCA Civ 778, [77]-[83].

## Question 10

***Are there international policy measures, legal frameworks or proposals on AI or ADM that should be considered for adoption in Australia? Is consistency or interoperability with foreign approaches desirable?***

This question (seeking legal frameworks *on* AI or ADM) runs counter to the thrust of Question 5 which suggests a preference for a technology neutral approach. Looking specifically at the European proposed AI regulation, the dangers of its technological specificity are clear. To take one example of the broader problem of the Act, article 5(1)(a) states that the following "AI practice" is prohibited:

> *the placing on the market, putting into service or use of an AI system that deploys subliminal techniques beyond a person's consciousness in order to materially distort a person's behaviour in a manner that causes or is likely to cause that person or another person physical or psychological harm.*

It is difficult to see any justification for the letters in red, in other words why this prohibition should be limited to circumstances involving an AI system. The same problem arises throughout the EU draft regulation. For example, it is easy to justify doing risk assessments on high risk activities, but not a requirement to do risk assessments only where high risk activities involve AI. The reason for the technological specificity is historical – the European Commission was asked to draft a regulation of "AI". That is similar to the framing inherent in Question 10. It is, however, not the best way to proceed.[17]

A better path forward is to consider how principles based laws (such as found in the areas of privacy, discrimination, consumer protection and administrative law) might need to be reformed to better manage the issues arising in the contexts of ADM and AI.

Interoperability with foreign approaches is desirable but can be achieved without making the same mistakes as other jurisdictions. For example, the European approach will likely draw on technical standards and the same standards will hopefully, through Standards Australia, become Australian standards. Adoption of standards is one way for organisations to manage issues around international harmonisation.

There are also specific regulatory innovations in LegalTech that are worth considering. For example, the UK defines specific legal services activities that only those who are authorised can perform. Such a list, particularly if it avoids unnecessary technological specificity, would provide some certainly in this context.

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[17] Bennett Moses, 'Regulating in the Face of Sociotechnical Change' (n 1); Lyria Bennett Moses, 'How to Think about Law, Regulation and Technology: Problems with "Technology" as a Regulatory Target' (2013) 5 Law, Innovation and Technology 1.

We are happy to work with the department as it moves forward on these important policy questions. If we can be of any assistance, please contact us through Lyria Bennett Moses; lyria@unsw.edu.au.

Yours sincerely,

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