



Report: Review of Government Algorithms

To:	Hon. James Shaw, Minister of Statistics		
	Hon. Clare Curran, Minister for Government Digital Services		
Date:	14 May 2018	Priority:	High

Contact details

Name	Position	Telephone		First contact
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Purpose

This paper outlines a proposal to increase the transparency and accountability of algorithm use by reviewing existing algorithms and their uses across government agencies.

We seek your agreement to commission the Government Chief Data Steward (GCDS), in partnership with the Government Chief Digital Officer (GCDO), to conduct initial assessment with core government agencies and report back to Ministers at the end of July.

Key messages

- Government can do more to ensure its own current and proposed use of data is fit-for-purpose and that appropriate safeguards are in place.
- The need for oversight is particularly evident in the use of data analytics and algorithms. Many government agencies are already using data modelling and algorithms to assist with decision making.
- We propose that the GCDS, in partnership with the GCDO, lead a stocktake of existing algorithms and their uses across government to provide confidence that algorithms are being used to a best practice standard.
- Functional leads have already been established to drive the better use of data and digital technology across government agencies. s9(2)(f)(iv)
- This work would fit within a complementary range of projects taking place across government which touch on the issue of increasing the transparency and accountability of data analytics and algorithms.

Recommended action

We recommend that you:

- a) **Note** that many government agencies are already using data modelling and algorithms to assist with decision making
- b) **Note** there is a need to ensure algorithms are used appropriately, are used ethically, and free from bias
- c) **Note** that there is currently no centralised record of these tools and the decisions that they support
- d) **Note** that we propose a phased approach, conducting an initial assessment with core government agencies and reporting back at the end of July
- e) **Note** the attached draft press release announcing this review
- f) **Note** there is a range of complementary projects taking place across government which touch on the issue of increasing the transparency and accountability of data analytics and algorithms
- g) **Agree** to commission the Government Chief Data Steward, in partnership with the Government Chief Digital Officer, to review existing algorithms and their uses across government as a first step to increasing transparency in this area

AGREE / DISAGREE

- h) **Note** that the Government Chief Data Steward and Government Chief Digital Officer will ensure this work is well coordinated across government, including that the key aspects are transparent, and all communications are aligned
- i) **Forward** this report to:
 - Hon. Chris Hipkins, Minister of State Services
 - Hon. Andrew Little, Minister of Justice
 - Hon. Carmel Sepuloni, Minister for Social Development
 - Hon. Tracey Martin, Minister of Internal Affairs
 - Hon. Peeni Henare, Associate Minister for Social Development

AGREE / DISAGREE

Colin MacDonald
Chief Executive
Department of Internal Affairs

Liz MacPherson
Government Statistician and
Chief Executive
Stats NZ

Hon. Clare Curran
Minister for Government Digital Services
Date:

Hon. James Shaw
Minister of Statistics
Date:

Background

1. Advances in digital and data environments are changing how we live, work and interact. These changing environments present considerable opportunities to improve the lives of citizens, but also present challenges to ensure that data is used appropriately.
2. As government agencies increase their use of data analytics to support decision making, it is essential that they also operate transparently and maintain public trust and confidence in the use of the data held on behalf of New Zealanders.
3. On Monday 7 May 2018, the Minister of Statistics, the Minister for Government Digital Services, the Minister of Justice and the Minister for Social Development met to discuss the need for a cross-government approach to digital and data issues, such as the increasing use of algorithms to drive decision making by government agencies.

Reviewing the use of algorithms across government is a first step

4. In order to respond to operational and strategic needs, government agencies have employed data modelling and algorithms within their own portfolio context, often creating bespoke or individualised tools. There is currently no centralised record of these tools and the decisions that they support.
5. These tools have tremendous power to improve lives, by reducing the extent to which policies may be developed based on subjective viewpoints and exploiting the rich empirical information that modern data analytics can unlock. However, we must also ensure that algorithms are being used appropriately and are free from bias.
6. We seek your agreement for the GCDS to lead a stocktake, in partnership with the GCDO, of existing algorithms and their uses across government. This would enable us to identify and support other agencies who is using algorithms to drive decisions and provide confidence that algorithms are being used to a best practice standard.
7. We will ensure that this work is well coordinated across government, including that the key aspects are transparent, and all communications are aligned.
8. This work would evolve using a targeted approach, identifying agencies where algorithms are likely to have the greatest impact on decision making and where there is a self-identified need for assurance, before being more widely rolled out.
9. The Privacy Commissioner, working with Stats NZ has developed six high-level principles that reflect both a privacy and data stewardship perspective of the key issues around data and data analytics. We propose that these should be used to underpin the review of government algorithms. These have been included as Annex One.
10. Because the scope of this work is significant, we propose a phased approach, conducting an initial assessment with core government agencies and reporting back to Ministers at the end of July on our initial findings and providing options for next steps.
11. A terms of reference for this work will be agreed through the Digital Government Partnership Chief Executives.
12. We have drafted a press release for your use, outlining the commission of this work, and attached this as Annex Two.

This complex environment requires coordinated leadership

13. It is important that Ministers retain oversight of digital and data initiatives that span multiple portfolios including measures such as the review of government algorithms. §9(2)(f)(iv)
[REDACTED]
14. §9(2)(f)(iv)
[REDACTED]
[REDACTED]
[REDACTED]
15. Recognition of this need for coordination has already led to the establishment of a GCDS and GCDO who are working together closely to drive the better use of data and digital technology as critical enablers to support government priorities.

Other digital and data work is underway

16. There are complementary projects taking place across government which touch on the issue of increasing the transparency and accountability of data analytics and algorithms.
17. The GCDS and GCDO will ensure this work is well coordinated across government, including that the key aspects are transparent, and all communications are aligned.
18. These include the Data Protection and Use Policy consultation launched by Minister Sepuloni on 8 May, which is being undertaken by the Social Investment Agency. This project involves engaging with social service providers (including national-level and frontline government agency staff) and service users to ask about the Government's proposed approach to investing for wellbeing and about the protection and use of personal information by the social sector.
19. The Ministry of Social Development (MSD) has been developing a privacy, human rights and ethics framework (PHRaE) to guide the safe use of data within MSD. This framework considers privacy, human rights and ethics with the aim of enabling data-driven decisions while demonstrating to clients they are trusted custodians of their information and is being trialled for use across government agencies.
20. The Privacy Bill to repeal and replace the Privacy Act (1993) will further New Zealand's strong track record of protecting the privacy interests includes stronger powers for the Privacy Commissioner, the mandatory reporting of harmful privacy breaches, and new offences and increased fines. This will allow New Zealand to develop a more effective and modern data protection and privacy framework in line with legislation in other jurisdictions.
21. Stats NZ is considering options for new data and statistics legislation to replace the Statistics Act 1975. New data and statistics legislation would allow increased data use and innovation across government and across New Zealand while ensuring an appropriate level of protection to maintain New Zealanders trust and confidence in the quality and use of their data. This would also provide an opportunity to modernise the law governing the production of official statistics.
22. The government has been supporting the work of the Artificial Intelligence Forum of New Zealand (AI Forum). This work is led by the Ministry of Business Innovation and Employment (MBIE) but involves input from a wide range of government agencies, including DIA, Stats NZ and the SIA. On 2 May, Minister Curran launched the AI Forum's report *Artificial Intelligence: Shaping a Future New Zealand*.

23. This report made a range of recommendations designed to help New Zealand position itself to take advantage of the benefits that AI technology is bringing to society and also to deal with the challenges that it poses. Several of the recommendations focus on AI ethics.
24. MBIE and DIA have begun work to prepare an action plan to implement the AI Forum's recommendations, alongside other agencies including Stats NZ. As a first step, Minister Curran has announced the establishment of a formal relationship between government (facilitated by DIA) and the new Centre for Artificial Intelligence and Public Policy at the University of Otago. This will give government access to high quality advice on the legal, ethical and policy issues surrounding AI, algorithmic analytics and other new technologies.
25. One aspect of AI is its role in the next generation of data analytics as machine learning effectively enables "smart algorithms". Another, related, aspect is the impact that AI will have on jobs as automation becomes more common.
26. The AI Forum's report argues that the prospects in this regard are more optimistic than some commentators have suggested and that AI will not lead to mass unemployment. However, AI does pose important questions for employment policy and on 3 May the Prime Minister announced the establishment of a Future of Work Forum bringing together unions, government, and business.

Next steps

27. If you agree to commission the GCDS, in partnership with the GCDO, to lead a stocktake of existing algorithms and their uses across government, we will immediately consult with other government agencies and provide you with a finalised terms of reference and indicative dates to progress this work before the end of May.
28. We will also work closely with the staff in your offices to finalise the draft press release.
29. We recommend that you forward this report to those Ministers who would form the proposed Digital and Data Ministers Group:
 - Hon. Chris Hipkins, Minister of State Services
 - Hon. Andrew Little, Minister of Justice
 - Hon. Carmel Sepuloni, Minister for Social Development
 - Hon. Tracey Martin, Minister of Internal Affairs
 - Hon. Peeni Henare, Associate Minister for Social Development