Revisiting the Algorithm Charter

The Algorithm Charter was drafted to "demonstrate a commitment to ensuring New Zealanders have confidence in how government agencies use algorithms" through transparency and accountability in how they use New Zealanders' data to make decisions about them. This research aims to critically examine the Algorithm Charter's effectiveness and relevance in the present day, both as agencies mature in their understanding of its commitments, and as technologies in this area evolve rapidly. By examining the Algorithm Charter, this research also seeks to identify opportunities to refine the Charter or complement it with new policy tools that improve an agency's ability to meet its commitments.

FOUR YEARS ON, THE MACHINE LEARNING LANDSCAPE HAS AND CONTINUES TO MOVE ON DRAMATICALLY

Very few policy advisors at the time, four years ago, could have predicted the rapid rise of generative AI and large language models (LLMs). Today, publicly available LLMs continue to become even more complex and accurate like GPT-4 and Gemini. The barrier to enterprise uptake is lowering as LLMs are integrated into existing enterprise products like Microsoft's Copilot. It is now becoming viable and easier to take commercial off-the-shelf products to create sufficiently accurate but governable LLMs.

As a result, the line is increasingly blurred as to who is responsible for devising a written decision: all the way from helping a human operator make a decision flagged by a model as too complex to be automatically decided – to drafting up legislation, Cabinet papers, and other significant policy levers that will affect most, if not all, New Zealanders. A key aspect of this research will be around how these contemporary developments affect the fitness of purpose of the Charter.

GOVERNMENT CAPABILITY IN ADVANCED ALGORITHMS IS IMPROVING

Government agencies are catching up to private entities in its machine learning capability, hiring data scientists and machine learning engineers capable of creating more complex deep models than a traditional modeller or forecaster. Consequently, government agencies are capable of creating models both more complex, but more performant and impactful, than the Algorithm Charter would permit due to a commitment to transparency and explainability.

THERE MAY BE LITTLE CAPABILITY AROUND REVIEWING ALGORITHMS ONCE APPROVED AND IN PRODUCTION

An initial scan of how the Algorithm Charter has been operationalised in one agency has revealed a gap in understanding how well algorithms perform after they have gone through the requisite governance checks, aligning with both the Charter and enterprise policy. This

governance itself is part of the challenge, a redeveloped algorithm – at least in this agency – would have to go through those same checks again.

However, this challenge may also be due to the fact there is no single framework that developers can use to evaluate an algorithm's performance not in the 'quantitative, performance metric' sense, but in a 'qualitative, impact evaluation' manner similar to processes undertaken in policy analysis. Impact evaluations consider specific outcomes of an intervention on different groups. Such a framework could be applied to the Algorithm Charter, where the intervention is the algorithm, and the outcomes are compliance with the Charter principles. The Charter principles themselves are a good starting point for devising questions that an impact evaluation could answer:

- **Transparency**: how explainable is the information they provide about the algorithm?
- **Partnership**: how effective are they as Treaty partners engaging with te ao Māori?
- **People**: how are people affected by automated decisions as individuals long after the decision has been made, and different communities as a whole?
- **Data**: how fit for purpose is the data considering data drift, and how well
- **PHRAE**: how well were peer reviews conducted to assess for unintended consequences?
- **Human oversight**: how compliant have human operators been in ensuring manual oversight of an automated decision?

This research could help build a foundation for new policy tools to complement the Algorithm Charter, in its current or revised form as recommended by previous findings in this research process.