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**Unchartered Waters: The insufficiencies of New Zealand's 'world-first' Algorithm Charter in governance of automated decision-making**

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**Abstract:**

*Automated decision-making – the partial or whole use of algorithms in carrying out decisions – is becoming of increasing prevalence in the public sector. Algorithms have the potential to revolutionise public sector decision-making, providing unprecedented levels of efficiency and accuracy to organisations effectively utilising the technology. However, automated decision-making presents a new set of issues to subjects, revolving around the adequacy of the data sets involved and the extent to which human operators carry out their oversight responsibilities. Despite this, New Zealand’s legislative books contain only 16 references to such automated systems. In place of legislation, the Privacy Commissioner and Stats NZ released a set of guidelines for public sector organisations in their use of automated decision-making in July 2020 – praised at the time by Minister for Statistics James Shaw as a ‘world-first’. This paper examines and assesses the effectiveness of New Zealand’s regulatory framework to the conclusion that subjects are nonetheless left vulnerable to the dangers of automated decision-making. While the Charter is an important step in recognising and addressing these issues, Parliament should implement general legislation regulating automated decision-making across the public sector, ensuring the protection of subjects’ interests while allowing for the benefits expansion of automated decision-making in the public sector would create.*

**Key words:** “automated decision-making”, “administrative law”, “algorithms”, “public law”

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## *I Introduction*

Automated decision-making consists of a computational algorithm assisting in decision-making processes. Given the sheer computing power modern technology provides, effective automated decision-making systems can exponentially increase productivity and significantly reduce labour costs where an algorithm is substituted for a human operator.<sup>1</sup>

New Zealand's public sector is steadily increasing its reliance on automated decision-making in organisations' decision-making functions. Customs' SmartGate (now eGate) – an automated system that compares the image taken at the gate to the image on that user's passport – was first introduced in 2009.<sup>2</sup> The Accident Compensation Corporation (ACC) recently implemented its Next Generation Case Management system, under which non-complicated claims are accepted by algorithms without the need for human involvement.<sup>3</sup> However, technological development in New Zealand's automated decision-making space risks outpacing accompanying regulations. Inconsistencies in authorising provisions across statutes and a lack of general legislation have resulted in a confusing regulatory framework devoid of effective methods to curtail the risks of automated decision-making.

New Zealand's regulatory response to the public sector's increased reliance on automated decision-making was the implementation of the *Algorithm Charter for Aotearoa New Zealand* in July 2020.<sup>4</sup> The Charter contains a commitment by its signatories to carry out decisions with a sufficient risk of an adverse outcome occurring in accordance with six listed principles.<sup>5</sup> Assessment of the Charter's regulatory effectiveness necessitates examining the instrument against two major policy objectives that should underpin regulation: the protection of subjects' interests and the opportunity for automated decision-making to develop in the future. The commitment by signatories to undertake decisions in accordance with the Charter's listed principles supposedly serves to neutralise possible issues that may arise if automated decision-making is not carried out in the appropriate manner – but the true extent of this protection is uncertain.

In this paper I argue that the Charter is insufficient to protect the interests of subjects vulnerable to adverse public sector decisions. Despite the immense room for expanding automated decision-making resulting from the non-binding, legally unenforceable nature of

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<sup>1</sup> Colin Gavaghan, Alistair Knott, James Maclaurin, John Zerilli and Joy Liddicoat *Government use of Artificial Intelligence in NZ* (online looseleaf ed, New Zealand Law Foundation) at 36.

<sup>2</sup> Realising benefits from six public sector technology projects (Office of the Controller and Auditor-General, June 2012) at 5.3.

<sup>3</sup> Accident Compensation Corporation Annual Report 2018 (ACC, 2018) at 46.

<sup>4</sup> *Algorithm Charter for Aotearoa New Zealand* (Stats NZ, July 2020).

<sup>5</sup> At 2-3.

the Charter, the Charter's unenforceability has resulted in a regulatory framework that lacks the ability to provide for the true protection of its subjects. Becoming a signatory of the Charter is a voluntary process which has been undertaken by very few eligible government agencies since its implementation. Beyond this, the Charter fails to provide any consequences for an organisation's breach beyond those that already exist, or any remedy for subjects whose interests have been affected by an automated decision. Any suggested remedy in a revised edition of the Charter would be futile, given the unenforceability of soft law. In balancing the policy objectives mentioned above, it becomes clear that the protection of subjects is currently underregulated in what can be considered the infancy stage of automated decision-making. As use of the technology and its associated risks is new, regulation across the public sector should err on the side of caution – especially given the public sector's accountability and transparency obligations.

I also propose an amendment to New Zealand's regulatory framework in light of the insufficiencies of the Charter, in the form of general legislation applicable across the public sector. The focus of this framework should be shifted so that the established accuracy of the algorithm is the main determining factor in whether the framework applies to a decision – rather than the Charter's current focus on the significance of the decision. Beyond this, a right not to be subject to solely automated decision-making – akin to that found within the United Kingdom's legislative framework – should be implemented, though with altered exceptions for where an algorithm has been tested and found to meet a sufficiently reliable threshold.<sup>6</sup> A subject's right of review should also be guaranteed above and beyond existing review processes, to have the effect of retaining a human in the loop and minimising the possible adverse impacts automated decision-making may have on a particular decision. Doing so would significantly strengthen New Zealand's legal position on the issue of automated decision-making in the public sector.

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<sup>6</sup> Data Protection Act 2018 (UK), s 96.

## *II Automated decision-making*

### *A Introduction*

The term ‘algorithm’ is becoming uncomfortably familiar in an age where the pitfalls of social media are being exposed and discussed with more regularity. Indeed, algorithms decide which Facebook and YouTube posts are shown in a user’s feed and which are excluded. Social media is just one example of the seemingly infinite possible areas within which algorithms could be used in the modern world.

Algorithms transform input data – programmed into the equation by a human – into a desired output.<sup>7</sup> The computer analyses the data it has been provided before drawing meaningful relationships and patterns from which to reach a decision.<sup>8</sup> Some simplistic examples of algorithms at use in day-to-day life include pocket calculators and automatic doors.<sup>9</sup> However, such a sweeping statement does not come close to encapsulating the breadth of algorithmic use. Algorithms differ amongst themselves in a multitude of significant respects, including the complexity of the algorithm itself and the impact of the decisions for which they are used. Falling at the low end of the impact spectrum is an algorithm matching a phone user’s thumbprint against the print stored in its database for the purposes of unlocking the phone.<sup>10</sup> At the high end falls a decision undertaken by an algorithm as to whether an applicant’s Visa is confirmed or denied by Immigration New Zealand.<sup>11</sup>

Automated decision-making can be described as where an algorithm is engaged to carry out a decision affecting a subject. Automated decisions traverse an equally wide range of possible uses with varying degrees of complexity and significance for subjects. This paper considers and addresses both existing and potential future uses for automated decision-making across New Zealand’s public sector.

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<sup>7</sup> Céline Castets-Renard “Accountability of Algorithms in the GDPR and Beyond: A European Legal Framework on Automated Decision-Making” 30 *Fordham Intell. Prop. Media & Ent. L.J.* 91, at 97.

<sup>8</sup> Ari Ezra Waldman “Rise of the Machines: Artificial Intelligence, Robotics, and the Reprogramming of Law” 88 *Fordham L. Rev.* 613, at 616.

<sup>9</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 6.

<sup>10</sup> Rich Mogull “The iPhone 5s fingerprint reader: what you need to know” (10 September 2013) [Macworld <macworld.com>](http://macworld.com).

<sup>11</sup> *Stats NZ Algorithm Assessment Report* (Internal Affairs, October 2018), at 17.

Proper analysis of automated decision-making in the public sector requires an accurate articulation of the specific types of algorithms that will be dealt with. For this, I turn to Stats NZ's *Algorithm Assessment Report*, whose focus on 'operational algorithms' serves to adequately illuminate the issues particularly relevant to the public sector. Operational algorithms interpret or evaluate information to carry out, or materially inform, "decisions that impact significantly on individuals or groups".<sup>12</sup> Given the significant impact operational algorithms can have on subjects, these are the ones to which the greatest regulatory attention must be paid.

A further critical distinction in discussion of automated decision-making is that differentiating between rules-based and discretionary algorithms. Rules-based algorithms – or predictive models – make decisions according to a particular set of rules, involving making a prediction about an unknown variable based on one or more known variables.<sup>13</sup> Discretionary algorithms exercise judgment in coming to a particular decision. One example of a type of discretionary algorithm is an optimisation system, which is tasked with finding the best solution to a problem with a significant number of variables.<sup>14</sup> It should be noted that there is no direct correlation between the complexity of an algorithm and the amount of harm it could cause.<sup>15</sup> The simplest of algorithms could bring about significant harm if used in contexts where interests are finely balanced.

## *B Benefits*

New Zealand's principles for the safe and effective use of data and analytics set out that the use of data must deliver clear public benefits for New Zealanders.<sup>16</sup> Algorithms, if used responsibly and in ways that minimise their detriments, are demonstrably capable of significantly improving public sector decision-making in New Zealand. This paper considers the utility of automated decision-making – which can be broadly categorised into benefits to efficiency and accuracy – in the context of its existing and potential effects on public sector decision-making. Overall, it is estimated that automated decision-making has the

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<sup>12</sup> *Algorithm Assessment Report*, above n 11, at 7.

<sup>13</sup> At 7.

<sup>14</sup> At 14.

<sup>15</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 1.

<sup>16</sup> Privacy Commissioner *Principles for the safe and effective use of data and analytics* (online looseleaf ed, Stats NZ) at 1.

potential to increase New Zealand GDP by up to \$54bn by 2035.<sup>17</sup> Despite the inclusion of the private sector in AI Forum’s research on the issue, it is foreseeable that the public sector would constitute a significant proportion of this increase given the current prevalence of automated decision-making and the potential for expansion within the sector.<sup>18</sup>

Operational algorithms allow far greater efficiency for an organisation looking to carry out decisions – an effect that is multiplied when extrapolated to large-scale use of the algorithm. Algorithms are capable of processing large amounts of data at a speed unmatched by any human, with the effect of reducing taxpayer costs for an organisation and delivering faster decisions for subjects.<sup>19</sup> By way of example, the majority of claims received by ACC are now accepted through automated decision-making. This has resulted in a significant uptick in efficiency in comparison to the previous model, in which staff manually evaluated each claim as it made its way through the system. Approximately 67% of ACC claims are now processed within an hour of their submission, whereas this process used to take 5-7 days.<sup>20</sup> This use of automated decision-making has made it such that 90% of claims received by ACC now require no human attention at all.<sup>21</sup> It is only the remaining 10% of claims which require additional attention or information that engage humans in the process. Thus, whereas ACC previously had to employ people to deal with each claim specifically, it is now only the most difficult 10% of claims which require labour costs, the benefit of which is enjoyed by the taxpayer.

In what can be said to be the infancy stage of algorithm use, a blanket claim cannot be made that algorithms are more reliable or accurate than human decision-makers. Examples can be readily found of deficiencies in algorithms to this effect.<sup>22</sup> The more appropriate way to frame this benefit is in the potential for algorithms to surpass humans in forming accurate judgments – a formulation that can be deemed the ‘accuracy ceiling’ of algorithms. Algorithms consider far more input variables and training examples, and can be updated to

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<sup>17</sup> AI Forum *Artificial Intelligence: Shaping a Future New Zealand* (online looseleaf ed, AI Forum) at 19.

<sup>18</sup> *Algorithm Assessment Report*, above n 11.

<sup>19</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 33.

<sup>20</sup> Education and Workforce Committee *ACC Annual Review: Hearing of Evidence* (17 Feb 2021).

<sup>21</sup> *Government use of Artificial Intelligence in NZ*, at 20.

<sup>22</sup> See for example Clare Garvie and Johnathan Frankle *Facial-Recognition Software might have a Racial Bias Problem* (online looseleaf ed, The Atlantic) at 4.



consider new information more effectively than a human making the same decision.<sup>23</sup> The vast amount of data available in decision-making today is, to a large extent, impossible to comprehend and analyse for a human operator.<sup>24</sup> Optimising the quantification of all data available and delivering an effective decision requires the computing power that can only be provided by an algorithm. From a probabilistic standpoint, the removal of human discretion inevitable in automated decisions also renders such decisions more objective and, therefore, more accurate – excluding decisions involving the exercise of discretion and notwithstanding issues of data bias discussed below.<sup>25</sup> If programmed effectively, algorithms can utilise these factors to deliver more accurate decisions than their human counterparts. Any reform in New Zealand’s public sector must be implemented against this backdrop. However, the utmost care must be taken in implementing any reform to ensure algorithms take into account the complexity and nuances of statutory language, which often means that the plain and ordinary meaning of a word is usurped by an interpretation that gives effect to the purpose of the legislation.<sup>26</sup>

### *C Deficiencies*

Fulfilment of the public benefit principle necessitates that these benefits outweigh the deficiencies of automated decision-making, including (a) automation complacency, (b) automation bias and (c) biased data. Any amended regulatory framework should have regard for these issues and include recommendations for their minimisation or elimination.

Automation complacency emerges as follows: the less an operator has to do (in terms of oversight of a machine’s work), the more likely it is they will start to assume that the system is infallible and stop actively monitoring the machine. The effect is typically found in humans under ‘multiple-task load’, where the operator must deal with other, manual tasks at the same time as scanning the automated system for errors.<sup>27</sup> Such a situation arose in

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<sup>23</sup> *Government use of Artificial Intelligence in NZ*, at 34.

<sup>24</sup> *Artificial Intelligence: Shaping a Future New Zealand*, above n 17, at 26.

<sup>25</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 35. See also Justice Melissa Perry “iDecide: administrative decision-making in the digital world” (2017) 91 ALJ 29 at 33.

<sup>26</sup> Dr Will Bateman “Algorithmic Decision-making and Legality: Public Law Dimensions” (2020) 94 ALJ 520 at 524.

<sup>27</sup> Raja Parasuraman, Dietrich Manzey “Complacency and Bias in Human Use of Automation: An Attentional Integration” (2010) 52 HFES 381 at 387.

2019 during use of Customs' eGate automated passport system.<sup>28</sup> A person of interest attempted to depart from Auckland Airport using a passport that belonged to someone else. The eGate system correctly identified an inconsistency between the image taken and that stored on the passport in question. Upon referral to a human operator – whose role it was to override the algorithm's inconsistency identification or refer the passenger to another Customs officer through a process called the Decision Review Tool – the operator incorrectly classified the two images as matching and allowed the person to depart from New Zealand. The resulting report raised questions about the level of distractions faced by an officer using the Decision Review Tool and that system has since been removed.<sup>29</sup> Customs' protocol where eGate identifies an inconsistency is now to refer the subject to a human operator for a physical face-to-passport assessment.<sup>30</sup> This example serves as a reminder that not only is the protection of individual interests critical in each instance of automated decision-making, the general effectiveness of government also turns on the ways in which automated decision-making is utilised across the public sector.

Automation bias affects an operator in a similar manner to automation complacency and results in the same outcome – ultimately placing too much trust in the algorithm and failing to adequately exercise judgment and discretion to determine its accuracy. As noted in a European insight into artificial intelligence:<sup>31</sup>

*“...it is far easier for a judge to follow the recommendations of an algorithm which presents a prisoner as a danger to society than to look at the details of the prisoner's record himself and ultimately decide to free him.”*

Where the operator trusts the automated system to the extent that they ignore other sources of information, including their own judgment, the subject of the decision is vulnerable to the accuracy of the algorithm alone. Grave consequences have resulted from automation bias in other jurisdictions, including a United States naval missile attack directed at an Iranian civilian aircraft after an automated system incorrectly classified the aircraft as military.<sup>32</sup>

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<sup>28</sup> Remediation Report: Review of eGate Processes and the Use of the Decision Review Tool (New Zealand Customs Service, March 2019) at 1.

<sup>29</sup> Remediation Report: Review of eGate Processes and the Use of the Decision Review Tool, above n 28, at 2.

<sup>30</sup> At 2.

<sup>31</sup> Cédric Villani *For a meaningful artificial intelligence: towards a French and European strategy* (Conseil national du numérique, France, 2018) at 124.

<sup>32</sup> Kevin Neslage “Does ‘Meaningful Human Control’ Have Potential for the Regulation of Autonomous Weapon Systems?” 6 U. Miami Natl Sec. & Armed Conf. L. Rev. 151.

Automation bias and complacency effectively remove the safeguard of human oversight. While the subject – and often the operator themselves – remain under the guise that appropriate safeguards are in place to prevent an algorithm’s inaccuracies from presenting a risk to the subject and the decision, the true position is often to the contrary. Where these issues are present, the subject is only sufficiently protected if the algorithm is better at making the final decision than a human would be. While some algorithms are approaching this standard, it would be dangerous to extend this assumption across algorithmic use in the public sector.<sup>33</sup> Until the point at which this may be true, it is best to implement and enforce safeguards that truly protect subjects from exposure to issues such as automation bias and complacency.

Issues of biased data arise where machines are given biased data sets from which to learn and make decisions from. Decisions made by algorithms in these cases inevitably reflect the data sets they have learned from. This was the case in a 2014 incident involving Amazon and an algorithm it had produced to filter job applications for a position open at the company.<sup>34</sup> Unintentionally and unfortunately present in the data set was an historical bias favouring male candidates over female for the position. Eventually, the algorithm taught itself to prefer male candidates – despite instructions to that effect not being included as part of its programming – and began shortlisting only male applications.

#### *D Current uses in the public sector*

Generally, algorithms in the public sector are used to improve efficiency for the organisation in question and deliver decisions whose outcomes can only be positive for the subject – adhering to New Zealand’s current regulatory framework.<sup>35</sup> This is best illustrated by outlining algorithms currently in use, though it must be noted that the following is far from an exhaustive list of what automated decision-making is and/or could be used for in the public sector. Use of automated systems in the public sector will continue to increase in the future as organisations seek greater efficiency and accuracy in their decisions.

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<sup>33</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 38.

<sup>34</sup> Lord Evans of Weardale *Artificial Intelligence and Public Standards* (The Committee on Standards in Public Life, February 2019) at 25.

<sup>35</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 3.

Immigration New Zealand's Visa Triage system has considerably streamlined the Visa application process.<sup>36</sup> The algorithm analyses Visa applications and assigns each application a risk rating. That risk rating subsequently determines the level of verification to be performed by an Immigration Officer in undertaking the final assessment of the application and confirming or denying it. Immigration Officers still make the ultimate decision for each application considered and processed, but the algorithm plays a vital role in outlining the risk rating – thus determining how much time and effort an officer should spend considering the application.

Since 2018, ACC has accepted most of its claims through an automated claims processing system, created using data from 12 million previous claims.<sup>37</sup> The data inputted from a particular claim creates a probability of acceptance score and a case complexity score by comparing the claim at issue to the database of previous claims. Claims that fall above the accept threshold in each metric are accepted instantly. Claims that fail to meet one or both thresholds are held for further processing, either in the form of more information from the subject or a manual assessment undertaken by an official. Implementation of this automated process allows staff to pay little attention to claims that easily meet ACC's criteria for acceptance, whereas – prior to the implementation of the algorithm – staff would have had to manually process even the most straightforward of claims. Unlike Immigration New Zealand, ACC's algorithm holds and exercises the capacity to accept claims itself. However, any decision with a potentially negative impact on subjects must be referred to a manual operator to make the final decision, occurring primarily where the algorithm returns unfavourable results in its probability of acceptance and case complexity scores.

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<sup>36</sup> *Algorithm Assessment Report*, above n 11, at 17.

<sup>37</sup> ACC *Statistical models to improve ACC claims approval and registration process* (online looseleaf ed, ACC) at 4.

### *III The Algorithm Charter*

Automated decision-making in New Zealand's public sector is currently subject to an ecosystem of policy statements and reports regarding the effective use of automated decision-making and ensuring identified principles are adhered to.<sup>38</sup> At this stage, there is no general legislation dealing with these concepts and issues. Statutory mention of automated decision-making is currently limited to the enabling legislation of relatively few public sector organisations.<sup>39</sup> The Charter contains a commitment by signatories to six principles which – if adhered to properly – would purportedly protect the public from the risks of automated decision-making alluded to earlier in the paper.<sup>40</sup> The six principles listed in the Charter are as follows:

- (a) transparency;
- (b) partnership;
- (c) people;
- (d) data;
- (e) privacy, ethics, and human rights; and
- (f) human oversight.

#### *A Transparency*

The transparency principle requires the controller to clearly explain how decisions are informed by algorithms, including plain English documentation of the algorithm and making information about the data and processes available. Transparency is especially critical in the public sector to ensure New Zealand upholds its Bill of Rights obligations.<sup>41</sup> It is easy to foresee issues like those mentioned above in relation to the Amazon algorithm arising in New Zealand at some point. Similarly, algorithm discrimination issues hidden by opacity may result in the breach of a subject's right to be free from discrimination.<sup>42</sup> Implementing and maintaining a requirement for an algorithm's transparency at least ensures that a safeguard is in place against issues that might otherwise stay hidden amongst series of code unintelligible to the average person.

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<sup>38</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 1.

<sup>39</sup> Customs and Excise Act 2018, s 296; Immigration Act 2009, s 28 are two examples of such legislation.

<sup>40</sup> *Algorithm Charter for Aotearoa New Zealand*, at 3.

<sup>41</sup> New Zealand Bill of Rights Act 1990.

<sup>42</sup> New Zealand Bill of Rights Act 1990, s 19.

Inserting a requirement for transparency and explanations into automated decisions also ensures that organisations comply with their obligations under the Official Information Act.<sup>43</sup> Under section 23(1), subjects impacted by a decision have a right of access to reasons affecting that decision.<sup>44</sup> This requirement has been defined such that the reasons given “must be sufficient to enable any body with a power of review to understand the process of thought whereby a conclusion was reached.”<sup>45</sup> Given the complexity of some algorithmic processes, reasons for a particular decision are not always easily attainable in terms understandable to the average citizen.<sup>46</sup> Nor is such information always accessible to a public sector agency where the source code has been procured from outside the organisation.<sup>47</sup> Placing the onus on the organisation responsible for the decision to produce clear and simple descriptions of the decisions that have taken place is a positive step towards transparency and accountability for automated decision-making in New Zealand.<sup>48</sup>

### *B Partnership*

The partnership principle gives effect to New Zealand’s commitments under the Treaty of Waitangi. Consideration should be directed to any possible additional effect data usage and algorithms may have on Māori data subjects. In considering and recommending regulatory action, regard must be had for situations that are likely to become issues in the future. As such, the partnership principle – and the corresponding recommendation from the Law Foundation to implement regular policy reviews with a Māori lens – would likely be of significant relevance if the Police decide to adopt and utilise facial recognition technology.<sup>49</sup> Though the Police’s facial recognition trial – which was subject to its own authorisation issues at the time – was ultimately scrapped, it is unlikely that the technology will stay

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<sup>43</sup> Official Information Act 1982.

<sup>44</sup> Official Information Act 1982, s 23(1).

<sup>45</sup> *Re Vixen Digital Limited* [2003] NZAR 418, at 43.

<sup>46</sup> Joy Liddicoat, Colin Gavaghan, Alistair Knott, James Maclaurin and John Zerilli “The use of algorithms in the New Zealand public sector” [2019] NZLJ 26, at 28.

<sup>47</sup> See Lyria Bennett Moses and Anna Collyer “Accountability in the age of artificial intelligence: a right to reasons” (2020) 94 ALJ 829, at 831 for discussion of the complexity and opacity issues that arise in applying the right to reasons requirement to automated decisions.

<sup>48</sup> *Algorithm Assessment Report*, above n 11, at 28.

<sup>49</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 77.

outside the sphere of New Zealand for much longer.<sup>50</sup> Concerns raised in other jurisdictions as to the reliability of facial recognition technology for non-white people may breach New Zealand's Treaty of Waitangi obligations if the technology is implemented before these issues are addressed.<sup>51</sup>

### *C People*

The people principle is an undertaking by signatories to actively engage with those who have an interest in algorithms and consult those impacted by their use.<sup>52</sup> Those whose personal information is being used in decisions and stored in databases should remain at the forefront of concern for agencies utilising automated decision-making. Safeguarding mechanisms – such as privacy legislation and the Office of the Privacy Commissioner – are of limited effectiveness in curtailing the dangers of automated decision-making.<sup>53</sup> Providing sufficient protection for subjects whose interests are affected involves consideration from the relevant organisation(s) as to the possible impact its data usage may have on those subjects.

### *D Data*

The data principle is a direct response to issues of data bias outlined earlier. Signatories to the Charter are compelled to make sure data is fit for purpose by understanding its limitations and identifying and managing bias.<sup>54</sup> Preventing or eliminating bias is a critical step in creating reliable automated decision-making systems that provide just outcomes for all subjects involved. Where algorithms learn beyond their original instructions, ensuring that those algorithms retain objectivity and accuracy to the highest standard should be of priority for public sector organisations looking to implement or continue automated decision-making. Not only is the quality and accuracy of the datasets important to machine learning algorithms – to eliminate data bias – the issues of automation bias and complacency also become relevant in ensuring data is fit for purpose. As mentioned, a situation in which a human operator places too much weight on the decision made by an algorithm leaves the

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<sup>50</sup> 1 News *Police to get advice around the use of facial recognition technology from two leading researchers* (online looseleaf ed, 1 News).

<sup>51</sup> *Facial-Recognition Software might have a Racial Bias Problem*, above n 22, at 4.

<sup>52</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 3.

<sup>53</sup> See Privacy Commissioner *Case Note 205558* [2010] NZPrivCmr 1.

<sup>54</sup> *Algorithm Charter for Aotearoa New Zealand*, at 3.

data subject vulnerable to the accuracy of that algorithm. Where it is accepted that such complacency exists, it becomes crucial to simultaneously target and eliminate the source of the complacency (training operators to place adequate weight on the algorithm's views relative to their own), whilst also limiting the damage caused by such complacency by protecting the accuracy of algorithms. This can be achieved by ensuring data is collected and analysed carefully and used in the context that it was collected.<sup>55</sup>

#### *E Privacy, ethics and human rights*

The privacy, ethics and human rights principle commits signatories to regularly peer review algorithms to assess for unintended consequences and act on the information gathered.<sup>56</sup> Regularly reviewing and updating algorithms in accordance with technological developments and issues identified in current and past iterations ensures the accuracy of algorithms in use, and ensures that both operator and subject benefit at all times from algorithms up to date with the best technology available to provide just and informed decisions.

#### *F Human oversight*

Retaining a human in the loop has been seen as imperative for guaranteeing accuracy and accountability in automated decision-making.<sup>57</sup> The Charter requires signatories to: nominate a point of contact for public inquiries about algorithms; provide a channel for challenging or appealing decisions informed by algorithms; and clearly explain the role of humans in decisions informed by algorithms.<sup>58</sup> Including a requirement that each signatory retains human oversight in every automated decision ensures that organisations maintain adequate chains of accountability for those decisions. The issue of accountability for algorithms is particularly difficult in cases of machine learning algorithms that learn beyond their original programming. Whereas the chain could be seen to have been severed at the point at which the algorithm learns beyond itself, the human oversight principle requires the organisation to re-anchor a human to the chain before a final decision is made.

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<sup>55</sup> *Principles for the safe and effective use of data and analytics*, above n 16, at 1.

<sup>56</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 3.

<sup>57</sup> *Artificial Intelligence and Public Standards*, above n 34, at 21.

<sup>58</sup> At 3.



Immigration New Zealand's enabling legislation contains a provision which sets out that any decision made by an automated system must be treated as if made by an Immigration Officer.<sup>59</sup> Though any particular decision undertaken by an automated system may not be directly attributable to a human operator, the legislature saw it as desirable and necessary to insert a direct link between a decision made by an electronic system and an Immigration Officer. The insertion of accountability through explicitly maintaining human contact plays a key role in maintaining public confidence in the work of government in carrying out decisions that are – at times – highly impactful to data subjects.

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<sup>59</sup> Immigration Act 2009, s 28.

#### *IV Assessing the adequacy of the Charter*

The Charter was heralded as a “world-first” set of guidelines to be adhered to by public agencies in their use of algorithms upon its release in 2020.<sup>60</sup> Though by no means the first country to implement a regulatory framework concerning automated decision-making, New Zealand’s approach has been far different to that of other jurisdictions. In assessing the effectiveness of the Charter as New Zealand’s primary regulatory method, a balance must be struck between two considerations to ensure that the needs of the public sector and subjects are met. The protection of data subjects’ interests at the hands of automated decision-making systems must be ensured, implementing certain and legally binding avenues through which subjects can obtain redress for non-compliant decisions. Subjects are left at the mercy of the algorithm’s accuracy if the issues previously identified are not appropriately addressed. Seemingly at odds with the provision of optimal protection – though nonetheless crucial in realising the benefits of algorithms – is the need to eventually maximise the efficiency flowing from inevitable and imminent technological developments. It is easy to envisage a future in which algorithms serve as significant decision-makers across the public sector, given the benefits they provide as discussed above. Assessment of the Charter in this context reveals the Charter’s glaring deficiency – a lack of legally enforceable protection against automated decisions – and thus illuminates the need for reform.

##### *A Application of the Charter*

Signatories to the Charter have committed to apply the principles laid out in the Charter and explained above, notwithstanding the impossibility of enforcing an agency’s non-compliance. The Charter’s application to a particular decision is determined by the risk matrix, which considers the likelihood and impact of an adverse outcome and assesses a risk rating to the situation in question.<sup>61</sup> Situations which have been allocated a high-risk rating – the highest of the three risk rating bands – are ones where the Charter must be applied. However, the consequences for breaching the Charter – even in a situation where it ‘must’ be applied – are insufficient at best and non-existent at worst. There are no consequences listed on the Charter for organisations acting contrary to its principles, despite having committed to use and apply the instrument according to the risk rating. Nor are there any general legal consequences that could be brought upon a signatory breaching one or more

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<sup>60</sup> Beehive “New Algorithm Charter a world-first” (press release, 28 July 2020).

<sup>61</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 2.

of the listed principles. Given that the Charter is soft law – and is therefore unenforceable in the courts – breaches of its principles may be dismissed through arguments of necessity where an organisation is under extreme time pressure (by way of example) or ignored entirely without consequence.

The complexity of automated decision-making and a lack of total transparency at times to the inner workings of the public sector also exposes a data subject to the risk of being kept oblivious to the fact that their decision was carried out through automated decision-making at all. A commitment by very few government organisations to retain human oversight in automated decision-making decisions does not provide adequate protection for subjects. Nor does it provide confidence for members of the public likely to be subject to automated decision-making decisions at increasingly frequent intervals as technology develops and more organisations implement such systems.

### *B Coverage of the Charter*

The number of signatories to the Charter currently stands at 26 agencies across the public sector.<sup>62</sup> Two notable absentees from the signatory list are Immigration New Zealand and New Zealand Customs Service.<sup>63</sup> Each of these agencies utilise automated decision-making in significant ways throughout daily operation, and were identified as doing so in Stats NZ's *Algorithm Assessment Report*.<sup>64</sup> Speaking specifically to Customs' non-inclusion, the public are left with the appearance that an organisation responsible for a significant error in its administration of automated decision-making systems (the 2019 eGate incident) is not subject to the primary method by which automated decision-making is regulated in New Zealand. In comparison, legislation across the public sector would leave no doubt as to whether public agencies fell within the scope of the legislation or not. Regulation could truly be 'across government', instead of being left to the discretion of individual organisations utilising automated decision-making in their day-to-day operations.<sup>65</sup>

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<sup>62</sup> "Algorithm Charter for Aotearoa New Zealand" (20 November 2020) Data NZ <data.govt.nz>.

<sup>63</sup> Stats NZ "Algorithm Charter for Aotearoa New Zealand" (20 November 2020) Data NZ <www.data.govt.nz>.

<sup>64</sup> *Algorithm Assessment Report*, above n 11, at 17.

<sup>65</sup> "New Algorithm Charter a world-first", above n 60.

A possible explanation for the absence of the organisations mentioned may be that each agency's enabling legislation contains provisions governing use of automated decision-making.<sup>66</sup> This explanation – if it rings true – may indicate that legislation is a more desirable option than the Charter for New Zealand in the future. However, not every agency utilising automated decision-making has legislative provisions directed to the use of such systems. Despite being a major user of automated decision-making in non-complex decisions, ACC's enabling legislation is silent on the issue.<sup>67</sup> This begs the question: does a public sector agency need authorising provisions in its enabling legislation to allow it to lawfully implement automated decision-making systems?

### *C Review of decisions*

A data subject unhappy with a decision made retains the ability to review the decision, either by judicial review or – depending on the agency – through a statutory method of review.<sup>68</sup> If such a decision was made in a way contrary to any of the standard grounds for review (or contrary to the statute's requirements for decision-making) it may be overturned by the Court, or the decision maker may be required to carry out the decision again. However, there is no case law in New Zealand concerning judicial review of automated decisions. A subject could not rely solely on the principles set out in the Charter as a ground for either method of review, given that the Charter is unenforceable in the courts. If the decision was carried out in breach of one or more principles set out in the Charter, the claimant would have to manufacture their argument to fit within one of the accepted grounds for review.

Inaccurate or unreliable algorithms may produce manifestly wrong decisions, which may reach the *Wednesbury* unreasonableness threshold if the responsible operator abdicates their oversight responsibilities or succumbs to automation bias or complacency.<sup>69</sup> Similar arguments could be put forward to show the algorithm considered irrelevant matters or failed to consider relevant matters, though these have failed when considered by courts in the United States.<sup>70</sup> In *State v Loomis*, a due process criminal appeal was dismissed because the

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<sup>66</sup> Immigration Act 2009, ss 28-32; Customs and Excise Act 2018, ss 295-9.

<sup>67</sup> Accident Compensation Act 2001.

<sup>68</sup> See Customs and Excise Act 2018, s 299 for an example of such a provision.

<sup>69</sup> *Associated Provincial Picture Houses v Wednesbury Corporation* [1947] 2 All ER 680.

<sup>70</sup> *Poamanga v State Services Commission* [1985] 2 NZLR 385 (CA); *Ye v Minister of Immigration* [2009] 2 NZLR 596 (CA). See also *State v Loomis* 881 NW 2d 749 (Wis 2016).

appellant could not prove that the sentencing algorithm took into account gender as a factor in making its recommendation, and – at any rate – the Wisconsin Supreme Court found that the trial Judge had not overly relied on the algorithm in reaching the decision that was made.<sup>71</sup> Discretionary decisions undertaken by algorithms may be vulnerable to the ground of abdication of discretion, given that algorithms generally apply a statistical model to produce consistent outcomes across decisions.<sup>72</sup> Additionally, the most applicable ground for a complex, opaque algorithm may be procedural unfairness. Reasons “sufficient to enable any body with a power of review to understand the process of thought whereby a conclusion was reached” – as are required in New Zealand – would almost certainly not be satisfied by reference to the source code of the algorithm in terms incomprehensible to the average citizen.<sup>73</sup> Opaque algorithms which engage complex lines of reasoning indecipherable to the agency itself (without engaging experts or programmers) would prove thoroughly problematic for a subject lawfully expecting reasons for their decision.<sup>74</sup>

A public agency is also precluded from improperly delegating its decision-making authority. This ground may be difficult to meet unless a third party (such as a programmer) is brought into the proceedings, as algorithms have no independent legal personality.<sup>75</sup> The Australian position appears to be that algorithms whose use is not explicitly authorised by statute cannot make decisions that have legal effect.<sup>76</sup> Where an automated decision is made, the operator, who is seen as the default repository of the statutory power, has not “reached a conclusion as a result of a mental process” – which is seen as a critical component of decision-making unless delegation to an automated system is statutorily authorised.<sup>77</sup>

New Zealand courts have not turned their attention to delegation of decision-making to automated systems, but it is clear that public agencies do not have unlimited delegatory powers.<sup>78</sup> Use of the word ‘person’ in the delegation provisions within the Public Service

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<sup>71</sup> *State v Loomis*, above n 70, at [109]-[110].

<sup>72</sup> Jennifer Cobbe “Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making” (University of Cambridge, 2018) at 20.

<sup>73</sup> *Re Vixen*, above n 45, at 43.

<sup>74</sup> Jennifer Cobbe, above n 72, at 22.

<sup>75</sup> David Smith “The Citizen and the Automated State” (LLM Thesis, Victoria University of Wellington, 2019) at 91.

<sup>76</sup> *Pintarich v Federal Commissioner of Taxation* (2018) 262 FCR 41.

<sup>77</sup> “Algorithmic Decision-making and Legality: Public Law Dimensions”, above n 26, at 528.

<sup>78</sup> *Just One Life Ltd v Queenstown Lakes District Council* (2004) 10 ELRNZ 191 at [24].

Act appears to work against the proposition that decision-making powers – as delegated by the relevant Chief Executive – can be exercised by algorithms without explicit statutory authorisation to that effect.<sup>79</sup> Despite this, the existence of the Charter at all may indicate a departure from the Australian position on the basis that Parliament have impliedly permitted the operation of existing algorithms – regardless of whether those are authorised by agencies’ enabling legislation. At any rate, the picture of inconsistency painted by New Zealand’s statutory regime leads to the conclusion that general legislation is necessary to clear up confusion as to the status of automated decision-making at law, and to successfully govern significant users of the technology.

Despite being currently untested, the above analysis shows that judicial review is an avenue through which claimants may be granted relief through the courts. However, these claims are expensive and time-consuming – and therefore may only be taken by those whose interests have been seriously affected by decisions.<sup>80</sup> In comparison, legislation directly addressing automated decision-making could include scope for the Privacy Commissioner to investigate subjects’ complaints, similar to the current process under the Privacy Act.<sup>81</sup> The Privacy Commissioner expressed support for the inclusion of automated decision-making in the Privacy Bill at Select Committee stage, but these recommendations were ultimately not implemented out of procedural fear over making such major changes at the Select Committee stage.<sup>82</sup> At any rate, the current uncertainty surrounding judicial review of automated decision-making does not provide adequate protection for subjects. Given the importance of the interests at stake in public decisions, clarification of the status of and rules governing automated decision-making at law is a decision that ought to be made by Parliament.

#### *D Protection*

The Charter is domestic soft law which relies on public sector agencies themselves to agree to be bound by the principles of the Charter. The number of agencies who would be eligible

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<sup>79</sup> Public Service Act 2020, sch 6 cl 2(4).

<sup>80</sup> David Smith, above n 75, at 96.

<sup>81</sup> Privacy Act 2020, s 17.

<sup>82</sup> Privacy Commissioner “Submission on the Privacy Bill to the Justice and Electoral Select Committee” at 8.5. See also Julie Collier (ed) “Notes on the Justice Select Committee” *Select Committee News* (online ed, Wellington, 10 July 2018) at 4.

to be a signatory to the Charter almost certainly far exceeds the number recorded on the current signatory list.<sup>83</sup> Adherence to the principles set out in the Charter is, therefore, a far cry from the set of standards governing automated decision-making supposedly launched “across government” in 2020.<sup>84</sup> As laid out above, the Charter fails to offer subjects any legally enforceable rights or remedies beyond those that already exist. Additionally, the principles set out in the Charter are confined to a singular page.<sup>85</sup> The concise nature of the Charter renders it difficult to establish where a breach of these principles has occurred, unlike the drafting precision that would be offered by legislation.

By contrast, an Act would offer the certainty and enforceability to provide this protection for subjects. A right not to be subject to a decision made solely through automated decision-making – as found within the United Kingdom’s equivalent legislation – and an accompanying requirement for agencies to inform subjects where this is the case would offer protection far beyond that offered by the Charter.<sup>86</sup> A subject whose decision was undertaken solely through automated decision-making could request that the controller reconsider the decision or take a new decision not based solely on automated processing.<sup>87</sup> This request would have legal backing on the basis of a right affirmed in the Act breached by the agency, rather than forcing the subject to rely on an agency’s legally unenforceable commitment to retain human oversight in every decision.<sup>88</sup> Such a course of action is desirable if New Zealand is to take the protection of subjects to automated decision-making seriously.

### *E Flexibility*

In assessing the effectiveness of the Charter in governance of automated decision-making, regard must be had to the potential for automated decision-making to expand and improve in the future. This is necessary to ensure New Zealand takes advantage of the benefits of automated decision-making, as evidenced by the estimated GDP growth mentioned earlier.<sup>89</sup> The Charter’s flexibility – in its status as soft law and its being subject to a review every 12

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<sup>83</sup> Data NZ “Algorithm Charter for Aotearoa New Zealand”, above n 62.

<sup>84</sup> “New Algorithm Charter a world-first”, above n 60.

<sup>85</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 3.

<sup>86</sup> Data Protection Act (UK), s 96.

<sup>87</sup> Section 97 of the Data Protection Act (UK) offers this remedy to subjects.

<sup>88</sup> *Algorithm Charter for Aotearoa New Zealand*, above n 4, at 3.

<sup>89</sup> *Artificial Intelligence: Shaping a Future New Zealand*, above n 17, at 19.

months – serves as the main benefit for its existence over legislation.<sup>90</sup> This flexibility allows stakeholders to continuously assess the state of automated decision-making across the public sector and the effectiveness of the Charter itself in protecting the interests of affected subjects. That flexibility would be stymied if New Zealand were to adopt legislation governing public sector use of automated decision-making. Whereas the full amendment process would have to be engaged every time the government wishes to change legislation, updating the Charter is a much simpler matter.

Additionally, the lack of legally enforceable rights accompanying the Charter serves as a benefit to organisations looking to expand their use of automated systems. An agency with a sufficiently reliable and accurate algorithm, which would make the retention of human oversight redundant, would be hampered by legislation requiring it to keep a human in the loop. Such a decision could be made without any possible detriment to the subject, provided that the algorithm is more accurate than a human would be at making the decision. In this scenario, review processes existing outside of automated decision-making would suffice to protect the subject's interests. Given that technological growth is occurring at such a rapid pace, legislation containing safeguards that may be necessary now may be outpaced by technological development as algorithms become more reliable and sophisticated.

#### *F Balancing objectives*

It appears that signatories currently take their obligations under the Charter seriously. The Police (a signatory to the Charter) recently released an assessment undertaken by a data analytics firm regarding their compliance across a range of algorithms in current use.<sup>91</sup> However, without any legally enforceable principles in place, the risk remains that the Charter will fade into the background and organisations will carry out their decisions in a non-compliant manner. If this possibility eventuates, subjects would be left vulnerable to the accuracy of the algorithm and the possibility that issues arising from automated decision-making might adversely impact public sector decisions. Despite the developmental advantages offered by the Charter, the need to protect subjects necessitates the implementation of legally binding regulations across the public sector. While the Charter was an important step in bringing issues and principles of automated decision-making to the foreground, more must

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<sup>90</sup> *Algorithm Charter for Aotearoa New Zealand*, at 1.

<sup>91</sup> Taylor Fry *NZ Police – Safe and ethical use of algorithms* (online looseleaf ed, NZ Police) at 2.



be done to appropriately regulate the field. Legislation is the means through which this should be achieved. Without unduly diminishing the importance of providing scope and opportunity for technological improvements, this cannot be the sole objective for regulation given the importance of interests at stake. Adequate protection for subjects must be put in place before adjusting these requirements to meet future efficiency needs.

### *V Regulatory proposal*

The analysis in the previous section suggests that the Charter is insufficient to stand alone in governing New Zealand's use of automated decision-making in the public sector. Not only has it been ignored by various agencies who utilise automated decision-making in significant decisions on a frequent basis, it provides no hope for a subject to obtain a remedy for a poorly made decision outside of New Zealand's existing review processes. The Charter is vague and unenforceable, and its principles serve as mere guidelines for a sector in which life-changing decisions for subjects are made constantly. Additionally, New Zealand's regulatory framework lacks clarity as to whether public sector organisations require an authorising provision to implement automated decision-making systems. Parliament is long overdue in turning its attention to the issue in a manner that creates consistent regulation across all significant public sector actors.

The best regulatory format to alleviate issues of scope, enforceability and certainty is general legislation applicable across the public sector. Agencies would be forced to comply with principles developed and implemented in the legislation, and subjects would be granted remedies that give effect to their interests following any breaches. Meaningful legislative reform should follow the two policy objectives outlined above – the protection of subjects' interests and the need to allow for future development in the field – to pave the way for use of automated decision-making to be optimised in current and future conditions. Constructing a regulatory framework which champions these policy objectives can be achieved effectively by implementing the following elements as the cornerstones of reform:

- (a) implementing a right not to be subject to solely automated decision-making; and
- (b) guaranteeing subjects' right of review.

### *A Right not to be subject to solely automated decision-making*

The first factor to consider in any legislative proposal is the complicated role of human oversight in automated decision-making decisions. A general right not to be subject to solely automated decision-making – akin to that guaranteed in the Data Protection Act (UK) – serves to protect subjects from harm at the hands of algorithms.<sup>92</sup> However, it is essential to be wary of the effectiveness of human oversight in anchoring and/or aiding algorithms in

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<sup>92</sup> Data Protection Act 2018 (UK), s 96.

decision-making. Retaining human oversight is not a sure-fire way to guarantee just outcomes of automated decision-making, given the risks posed by automation bias and complacency. Beyond this, exceptions must be crafted carefully to allow for the evolution of automated decision-making. Whereas insistence on human oversight may be the best strategy during the current state of algorithmic technology, a regulatory approach involving foresight of an increased role for algorithms in the public sector is necessary to ensure the framework remains coherent and workable in the future. Given the ability of algorithms to consider more input variable and more training examples, an automated system has a higher accuracy ceiling than that of a human.<sup>93</sup> In such circumstances, a blanket rule requiring human oversight to be retained in every decision prior to the review stage would unnecessarily hamper the effectiveness of agencies looking to utilise particularly accurate algorithms. An accuracy threshold should be inserted which, if surpassed by the relevant algorithm, would authorise that algorithm to undertake the decision without human intervention.

Customs' enabling legislation authorises the use of automated decision-making only if the organisation's Chief Executive is satisfied that the system has the capacity to make the decision with reasonable reliability, appearing to leave the threshold to be set by the courts.<sup>94</sup> This provision is untested, but a similar provision in general legislation would likely receive judicial attention (and therefore certainty) faster than it would where only applicable to one agency. A reasonable test is also appropriate given the breadth of possible algorithms that may come to use throughout the public sector. A strict test – for example one requiring fewer than one error in 10,000 – could not possibly encapsulate every public sector algorithm that could exist in future years. Nor could it capture the distinction between rules-based and discretionary algorithms, for which the tests to determine accuracy would invariably differ. The accuracy of discretionary decisions, which depend heavily on factual circumstances and case-by-case considerations, is inherently difficult to quantify against a set threshold. As such, a reasonable test is appropriate to determine the accuracy of a particular algorithm.

While the Charter's risk matrix focusing on the significance of the decision has its merits, a better criterion for assessing the need for human intervention is the accuracy of the algorithm

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<sup>93</sup> *Government use of Artificial Intelligence in NZ*, above n 1, at 34.

<sup>94</sup> Customs and Excise Act, s 296(2)(b).

in question. An insignificant decision may still result in the denial of a deserved service by an algorithm that lacks the capacity to accurately make decisions.<sup>95</sup> Conversely, a sufficiently accurate algorithm which can produce significant – and potentially adverse – decisions for a subject is only hampered by a strict requirement for its use to be limited to informing human decision-making. Shifting the viewpoint from which human oversight is judged to a basis of accuracy is crucial in giving effect to possible technological developments, and serves as a justified limitation on the extent to which human oversight should be required.

### *B Guaranteeing subjects' right of review*

The complex nature of algorithms and insufficiencies of existing review processes may make it difficult to spot where a subject's interests have been affected by use of an algorithm in a decision. In response to this, a blanket rule should be implemented guaranteeing all rights of review currently held by subjects of public automated decisions, regardless of the extent to which an algorithm informs the decision. Such a provision already exists in Customs' legislation.<sup>96</sup> This requirement is integral to maintaining accountability for organisations responsible for these decisions and upholding public confidence in efficient and just governance.

To eliminate human-based issues (automation complacency and bias), it may be necessary to hide the results of an algorithm from a review officer while the review is ongoing. However, to truly conceal an algorithm's results in a practical sense would require decisions with positive outcomes for subjects to be put forward for review alongside negative decisions. This is an undesirable pathway to adopt for the sake of maximising efficiency. Striking a balance between efficiency and protection, it may be sufficient to minimise the risk of human-based issues by merely hiding the reasoning of an algorithm during a review process. Despite being able to rely on the knowledge that the algorithm had returned a negative outcome, the review officer would have to engage with the information themselves and make their own decision. It would not be possible to dismiss the review through a fleeting glance at the reasoning for the original decision. Ensuring that a sufficient review

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<sup>95</sup> *Government use of Artificial Intelligence in NZ*, at 35.

<sup>96</sup> Customs and Excise Act, s 299.

process is in place to address current issues with automated decision-making is critical in protecting the interests of subjects of a decision.

## *VI Conclusion*

Use of automated decision-making in New Zealand's public sector is a tantalising opportunity to redefine efficiency and accuracy in public sector decisions. With a multitude of agencies already reaping the benefits offered by algorithms – and only more to follow – there can be no doubt that automated decision-making will play a significant role in the lives of New Zealanders for the foreseeable future. However – and particularly in the infancy stages of the technology – appropriate regulation is essential to curtail the risks created by automated decision-making. This objective is of particular importance within public sector use of algorithms, given the accountability and transparency obligations imposed upon each public sector agency in their decision-making roles.

Despite the triumphant claims from actors involved that the Algorithm Charter is a 'world-first' instrument in governing the public sector, the Charter falls significantly short of any legitimate attempt at governance of automated decision-making. Recognition of the Charter and its principles is voluntary for public sector agencies, leading to absences from those who have authorising provisions in their deeming legislation, or from those whose absences appear to be unexplained. Compliance is unenforceable and largely untraceable, as the Charter has no force on its signatories as a legally binding instrument. Subjects whose interests have been harmed are left without remedies beyond those that currently exist, and – at any rate – adaptation of the law to the intricacies of automated decision-making is a task that should be undertaken by Parliament.

New Zealand needs a regulatory regime that protects the ability for public sector agencies to innovate in their use of automated decision-making while ensuring that subjects do not have their interests unduly interfered with. Until dealt with appropriately, this issue will only become more pervasive as agencies race to benefit from the increased efficiency that follows from implementation of automated decision-making systems.

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