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Digital colonization: Algorithmic injustice and the abuse of rangatiratanga in Aotearoa

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NZ history, colonialism, Māori data sovereignty, early examples of unethical data practices, Oranga Tamariki, relational vs rational ethics

Introduction

Despite scientists' and mathematicians' best efforts, certain areas of the social sciences remain stubbornly unquantifiable and largely immune from their powers of computation and prediction. Despite rapid technological development over the last 200 years, there still exists significant nuance in various fields of human society and governance. One such field is the area which I will be focusing on in this essay; child protection. Child protection (from dangers both physical and metaphysical) remains one of the most contentious, controversial, and critically important fields in our modern society. The aforementioned nuances are even more exaggerated in the child protection environment, where there is significant difficulty involved in accurately defining what constitutes child abuse and where varying cultural values must be taken into account. Despite these nuances (and reflecting a much wider societal trend to automate and 'streamline' responses to social science issues), processes such as observing child abuse statistics and making policy decisions in relation to these statistics are increasingly left up to algorithmic tools and statistical processes.

In this essay I will attempt to unpackage some of the complexities behind these social issues, the exacerbating, institutional forces at play, and the wider context in which these issues are present. As the primary sources of discussion for my essay, I will be mainly drawing upon three research papers. The first is *Algorithmic Injustice: A relational ethics approach*, by Abeba Birhane. The second is *Algorithmic Injustice in Child Protection: Statistical Fairness, Social Justice, and the Implications for Practice* by Emily Keddell. The third is *Protecting the data rights of vulnerable Aotearoa youth* by Giulio Dalla Riva. By title alone, we can tell that all three papers revolve closely around the concept of algorithmic injustice and data rights. As such, I will be highlighting and expanding upon both of these concepts in my essay as well. As well as expanding on the work of Birhane, Keddell and Dalla Riva, I will highlight some

further examples where the issues of algorithmic justice, agency and consent are at play/infringed upon. I will finish with my thoughts on the papers themselves, if there are any issues with the arguments, logical or otherwise, and whether I subscribe to the arguments myself.

Section One – Setting the scene

As most school children in New Zealand are taught, The Treaty of Waitangi was signed in the bay of the same name in the year 1840. In the 180 years that followed, the narrative surrounding the intentions of the treaty and the events which followed has shifted somewhat and, for the past few decades in particular, there has been a growing sentiment for redress and compensation for the atrocities committed in the wake of the Treaty. Changing cultural values and periods of patriotic/nationalist sentiment were instrumental in this shifting sentiment but, what was probably most instrumental, was the introduction and (to some extent) recognition of lived indigenous experience, passed down through written and oral history. Some would argue that the British Crown's initial intentions were of noble persuasion – primarily in the interests of protecting the Māori from other potential colonisers while also ensuring their own economic benefit. However, it must be said that, be it through means malicious or misinformed, the British involvement in Aotearoa New Zealand caused irreparable harm to Māori, significantly disadvantaging them in relation to the British settlers.

Not only were the British almost immediately in breach of Māori Rangatiratanga by constantly overextending on the bounds of the treaty, but they were also in breach of their own laws and legal customs regarding the rights to property and land which all British citizens (of which the Māori were supposedly afforded the full rights of in the Treaty) were granted. Matters were complicated even further when the newly formed New Zealand Government took over the responsibility for the colony. This effectively left Māori in a situation where their treaty co-signers, the British Crown, had largely abdicated their role in the country, instead leaving decisions regarding Māori land rights and general wellbeing up to a newly formed collective. This collective served primarily as a very vocal mouthpiece for Pakeha issues and, almost from the outset, were responsible for examples of unethical data practices that infringed upon the kāwangatanga (sovereignty) and rangratiratanga (authority) of Māori in Aotearoa. Early examples include the 1846 colonial charter which instituted a tax on all 'uncultivated' Māori land.

The price for non-payment of this tax was land confiscation.[1] Clearly the colonial government faced immense pressure from the land-hungry settlers of the time and, as such, they implemented an incredibly colonial-centric perspective on what constituted 'cultivated' land. Despite strong resistance, Māori simply did not have the political leverage to stop this parliamentary bill. Following the implementation of this charter, (and accompanied by many other dubious land 'purchases') Māori land was reduced to 40% of its original size by 1890.[2] There seems to be a sense among some Pakeha that transgressions committed by the crown against Māori largely occurred in the first 50 or so years of our nation's history. But the reality is, as the New Zealand Government cemented its grip on power, transgressions against Māori continued well into the 20th century and, arguably, up until this very moment. As the decades went by, and the New Zealand government continuously held Pakeha interests as its own primary interests, outcomes for Māori only got worse. This was seen most clearly (in a statistical sense) when, in 1896, the Māori population had plummeted to a figure of only 42000. This was over a 50% reduction since the signing of Te Tiriti, just over 50 years beforehand[3]. While, Māori population has rebounded significantly since this point, outcomes for Māori in the areas of health, GDP per capita, incarceration rates, *child uplift rates,* and many others still remain disproportionately worse than outcomes for their Pakeha counterparts.[456] Unethical data practices played a near constant role in this, from allocation of education and healthcare resources, to determining locations and corresponding land confiscations for public works. The latter issue was incredibly instrumental in Māori land possessions eventually being reduced to a mere 9% of its original size in the year 2000.

This essay is not intended to be a history lesson on the gradual and insidious process of colonisation, assimilation, and subjugation – there are many texts from indigenous sources that tell that story more accurately and genuinely than I ever could. What this section is intended as, is as a discourse describing how breaches of consent and agency (alongside unethical data practices) were

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[1] (Treaty of Waitangi Commision, 2016)
[2] (Orange, 2001)
[3] https://teara.govt.nz/en/population-change
[4] https://www.health.govt.nz/publication/wai-2575-maori-health-trends-report
[5] https://www.corrections.govt.nz/resources/statistics/quarterly_prison_statistics/prison_stats_march_2021#ethnicity
[6] https://nzier.org.nz/static/media/filer_public/de/31/de315bcb-3188-4760-b21d-348382149aa0/maori_economic_development.pdf

present right from the point of our nation's conception. These breaches of trust severely harmed Māori-Crown relations, and it was not until the establishment of the Treaty of Waitangi Commission in 1975 that there was any sense of recognition of and compensation for previous injustices committed by the Crown. Clearly overt racism, prejudice and discrimination all had their roles to play in establishing and reinforcing this imbalanced power dynamic, but I think there is another, more subtle, source at play as well. That source is rational ethics. Rational ethics (the dominant source of Western though since the days of Plato), seeks to establish all problems in the world as exactly that – problems. In the school of rational thought, problems are solved with solutions. This problem-solution, moral-immoral dichotomy framework works well within certain sciences, maths, biology, or law for example, but its usefulness decreases (and almost evaporates entirely) as we move into the social science space. I think it is becoming increasingly obvious that there is a significant divide between rational ethics (and the schools of thought that follow it) and the more relational ethics approach of Te Ao Māori. This incompatibility has only been compacted over time, and is, in my opinion, represented no more clearly than in the current state of Oranga Tamariki and child protection services in New Zealand.

Section two – Oranga Tamariki

Over the last 5 years, there has been probably no governmental department that has featured more heavily in the New Zealand press than Oranga Tamariki. The branding change from Child, Youth and Family (CYFs) to Oranga Tamariki did little to prevent the growing public discontent directed towards the organization and its practices (not to mention the correlated media response that accompanied it). This discontent reached fever pitch in June 2019 when *Newsroom* published a series of reports titled *The Uplift*. In these reports and associated documentary, *Newsroom* took aim at the Oranga Tamariki's process of 'uplifting' – essentially, separating children from their parents. This topic of discussion was not new to many of those with vested interest in the structure and processes of both CYFs and Oranga Tamariki, namely Iwi and Pasifika communities. *The Uplift* confirmed what many indigenous communities had long suspected, that indigenous children experienced significantly disproportionate levels of uplifting and other action by Oranga Tamariki. According to the report, 70% of children 'uplifted' in 2018

came from Māori and Pasifika backgrounds.[7] This figure paints an exceedingly dark picture when it is realised that, in that same year, people of Māori and Pasifika backgrounds made up only 12.3% of the population.[8] While, as previously stated, these statistics do have some grounding in wider societal issues, I also believe at least part of the blame can be attribute to the means by which we analyse statistical methods and assumptions that are used to gather information and influence policy decisions, as well as the rational ethics ethos at the heart of all western institutions. Further to this, I believe that, given the history of the New Zealand Government's dealings with the indigenous population, that this outcome was somewhat inevitable – adding to a long list of disproportionate consequences felt by marginalized groups in Aotearoa.

While an incredibly powerful tool in terms of predicting response variables using previously observed predictors, statistical tools also possess an undeniable human bias when extrapolating data. Certain elements of a dataset may be obscured to promote a particular narrative, while other elements may be exaggerated, underreported, not measured or even fabricated. Of course, we would like to think that our governmental institutions are immune from the more egregious of these statistical sins (namely fabrication), but in a culture and society with varying cultural values (especially a society such as ours with imbalanced culture values) bias and flaws can be found in our statistical 'learnings'. Further to this, when considering that the New Zealand government has a proven track record of unethical data practices in relation to marginalized groups, it is easy to understand why said marginalized groups still feel a large amount of mistrust towards government institutions, none more so than Oranga Tamariki.

Like the first British settlers to land in the Bay of Islands, it is entirely possible that the directors of Oranga Tamariki have nothing but the best intentions for their work and outcomes for tamariki Māori in Aotearoa, but any lapse in responsibility in accounting for statistical bias/institutional racism can have potentially fatal consequences for tangata whenua. Any statistical process that does not comprehensively recognize the institutional issues which affect it and respond appropriately has the potential to further embed the cycle of harm. The decisions made using these processes can often become variable and

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[7] "NZ's own 'taken generation'". Newsroom. 11 June 2019. Retrieved 18 June 2019.
[8] https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/pacific-peoples

subjective. As Keddell puts it, "Algorithms using these data have distorted feedback loops and can contain inequalities and biases."[9]

Oranga Tamariki (and other government organizations) most likely pay great heed to the use of Predictive risk models (PRMs) to forecast the occurrence of potential child abuse within a family or families that they are monitoring. These algorithmic tools are often preferred to the manual process of social working assessment as they provide a cheaper, more efficient means of assessing potential risk. But, is the area of child protection an area that we wish to sacrifice quality of outcome for the sake of cost-saving? One could argue that an algorithmic process allows a higher volume workload to be completed on any given day, and, the potential for more risk mitigation. However, as algorithmic processes are entrenched and relied upon more and more, the very personal element of the data at play is diminished and the data handlers grasp of the scope and intimacy of the data they are supposedly protecting weakens. Furthermore, it is feasible to imagine data handlers' skills of data extrapolation and judgement being eroded over time as continuously rely on an automated system. In this case, it may be so that eventually data handlers are unable to recognize when an automated system has made an incorrect judgement to uplift a child and cannot intervene to overturn such a decision.

Work is done constantly to increase the predictive power of PRMs, but it has only been somewhat recently that we have seen any serious commitment from the government and algorithmic developers to be more transparent and accountable in the use of data. Most recently, the University of Auckland and University of Canterbury researchers who developed Oranga Tamariki's most recent PRM warned about the possible negative ethical impacts of their system, and clearly outlined where the scope of their system lay, and the areas that it could not predict.[10] The New Zealand government itself also committed to a much more 'caring' approach in its use of data science, publishing an algorithm charter which intends to "foster transparency and accountability in the use of data." (New Zealand Government, 2020)

Despite the stark warnings presented by the researchers involved in the development of Oranga Tamariki's latest PRM, and the clear commitment to data transparency and accountability by parliament, Oranga Tamariki seems to

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[9] Keddell, 2019
[10] (James, 2019)

either be slow in the uptake to update their policies accordingly, or they have deemed it an unnecessary element of their business model. Unlike in other countries, New Zealand does not have a legal requirement for a data subjects consent to be expressly given in order to share their private information. Oranga Tamariki themselves claims "sharing anonymised data is always OK"[11] As such, workers within Oranga Tamariki and other government agencies can freely share incredibly sensitive information amongst themselves, and even with third parties. While this may be seen as a necessity in the pursuit of protecting Aotearoa youth in a more efficient means, the reality is that this non-consensual distribution of data could be seen as a significant breach of tapu and trust for some Tangata Whenua. In Dalla Riva's 2020 piece, he describes no mention of the previously mentioned ethical risks in any of the Oranga Tamariki data handling policies. Writing this essay in 2021, this does not seem to have changed as I still have not been able to find any mention of these ethical issues, let alone any concrete steps in place to deal with them. For an organization that has demonstrated its desire for efficiency and streamlining, there appears to be considerable doubt over whether it is deemed necessary to seek data consent, or whether it is seen as an optional extra.

The primary issue that we run into when attempting to automate social policy through implemented statistical features and machine learning, is the near complete abandonment of humanity's innate ability to deal with complex nuanced problems that affect their own community. With centralization comes dehumanization, and in areas as critical as child protection, I do not believe we can afford to follow a dehumanizing approach. Often (particularly in the context of Oranga Tamariki), there is a significant disconnect between a family unit and a government institution that is making critical decisions regarding said family and this further exacerbates the levels of mistrust and non-transparency felt by marginalized groups.

Clearly, the issue of child protection in New Zealand is a long way from being resolved. Tamariki Māori uplift statistics remain disproportionately high and public support for the practices of Oranga Tamariki is wearing increasingly thin. Even within the government, patience seems to be wavering towards Oranga Tamariki. In November of 2020, Children's Minister Kelvin Davis refused to publicly back Oranga Tamariki CEO Grainne Moss, eventually leading her

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[11] (Oranga Tamariki, 2020)

resignation in February of this year.[12] So my question is this, when do we expect this strategy to start working? Are our shortcomings in this area simply the result of unoptimized statistical processes or leadership issues, or is *foundational* change needed to rectify the disproportionate consequences felt by tamariki Māori in Aotearoa?

Section 3 - Where to from here?

It is my opinion that the practices of Oranga Tamariki are flawed at their most fundamental level. I do not believe this to be the result of ill intent from any one person, or stemming from successive leadership failings. Rather, I believe this was an inevitable consequence of continuously applying western, rational, colonial frameworks onto marginalized indigenous communities who have repeatedly cried out for alternative community led solutions. I believe the ignorance surrounding Pakeha's mistreatment of Māori over successive generations permeates into all levels of our society and continuously reinforces the implementation and enforcement of the aforementioned frameworks. No one area is more susceptible to this ignorance and abdication of responsibility than our own parliament, who very seldom hold themselves accountable to past wrongdoings in the interest of protecting political capital. This abdication of accountability can be, in my opinion, considered functionally equivalent to an endorsement of past wrongdoings to be repeated, over and over again. Despite the wishes of our colonial ancestors, it is exceedingly ignorant of us Pakeha to presume that, given enough time, Māori will eventually lose their unique cultural identity and assimilate entirely into western culture. So, do we really think continuously subjecting tangata whenua (and particularly tamariki Māori) to these western practices will eventually result in more equitable outcomes? I believe we have 180 years of unequitable outcomes for Māori to show that this is nothing but a flight of fancy.

In Birhane's piece *Algorithmic Injustice: A Relational Ethics Approach*, she highlights the tension and incompatibility that exists between western rational thought and relational thoughts and values held by some indigenous groups. This tension is exacerbated by the disenfranchisement and minoritization of indigenous groups through the processes of imperialism and colonialism. This power imbalance allowed (and continues to allow) powerful western forces to

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[12] (RNZ, 2021)

implement their problem → solution frameworks in a number of areas – most notably academia and legislation. The problem → solution concept lies at the heart of virtually all western thought is complimented by another dichotomy, morality vs immorality. While there may be a binary scale of morality or "sense of right" within western cultures, that is not necessarily the case in Te Ao Māori. Te Ao Māori instead focuses on the core concepts of tapu (sacredness), tika (truth), pono (to be genuine or sincere), and aroha (affection, sympathy, love and compassion). All of these concepts amalgamate to form a much more complex picture of right and wrong within Te Ao Māori, where an individual's relationship with said concepts is fluid and reactive to the changing nature of the world around them. Clearly then, we must recognize that the concepts and values at the heart of Te Ao Māori are *functionally incompatible* with binary western frameworks and therefore cannot be translated as such.

So where can we go from here? With recent health reforms we've seen recently that the public is somewhat divided on separate authorities for Māori and Pakeha[13], so will the government have the courage and/or political capital to do so? The Waitangi Tribunal have made their views on the matter relatively clear, calling for "an independent Māori authority to work out how to eliminate the need for tamariki Māori to be placed in state care."[14], but stopping short of calling for the abolishment of Oranga Tamariki itself. As it stands, I do not believe Oranga Tamariki can continue to function in its current state. I think that the completely justifiable mistrust held towards Oranga Tamariki by some Māori is an insurmountable hurdle, built up by centuries of unethical government practices – data or otherwise. While any government instituting separate authorities for Māori and Pakeha may face a sizeable backlash, I believe it is one of our last (if not only) options in establishing more equitable, culturally conscious outcomes for tamariki Māori.

Section 4 – In Summary

The path ahead to an equitable society for all New Zealanders will not be an easy one. No doubt it will be littered with naysayers and difficult decisions, and it may be easy to get bogged down in political infighting. Despite this, I believe one of our top priorities as a nation is to set these issues aside and work together for a future that does not disenfranchise any child, based on their ethnicity. I do not believe it is enough for Pakeha to simply consult with Māori

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[13] (Kerr, 2021)
[14] (Johnson, 2021)

and Pasifika before making decisions in this area. I believe we, as Pakeha, must take a back seat in this conversation, and stand aside for Iwi and Pasifika leaders to make autonomous decisions themselves. If we do not, I believe we are doomed to repeat the mistakes of the past and continue the cycle of abuse and mistreatment, long after it should have been eradicated. It is my hope that this alternative style of community centred care and support will be much more capable of dealing with sensitive data and responding in ways that are more culturally conscious and produce more equitable results.

The work of Dalla Riva, Keddell and Birhane were essential in the formulation of my views on this topic, and I thank them for their contributions to this field. It is my hope that, with academics such as these influencing decisions makers at the highest level of our society whilst simultaneously educating the public on quite nuanced matters, eventual policy decisions and system transformations will be met with less backlash, and a more equitable society can be realised sooner rather than later.

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