DIFFERENTIAL OUTCOMES IN IRCC DECISIONS:
ON THE SCOPE AND IMPACT OF THE USE OF ADVANCED ANALYTICS TECHNOLOGY IN APPLICATION PROCESSES

Brief submitted to the House of Commons Standing Committee on Citizenship and Immigration

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Ten Key Recommendations

1. Legislative enactment for respect of fundamental rights in the use of AI
2. Legislative enactment for equal treatment in the use of AI
3. Legislative enactment for data security and transparency in the use of AI
4. Legislative enactment of AI under user control
5. Legislative enactment of an Algorithm Charter
6. Legislated definition of the use of AI
7. Legislative requirement for Algorithmic Impact Assessments for all uses of AI
8. Legislative requirement for transparent triaging and decision-trees
9. Legislative requirement for specialized training thresholds should be enacted
10. Legislated external audits with enforcement powers and external consultation
**Introduction**

Immigration, Refugees and Citizenship Canada (IRCC) is to be commended for continuing the process of modernizing and refining measures to enhance program delivery, integrity, and compliance. This includes through the digitization of delivery, information collection, data storage, document management, and the expanding use of “artificial intelligence solutions” (AI). Apprehension remains though over the move to techno-solutionism, in particular as it relates to perpetuating historical bias and e-marginalisation through automation.

Our focus before the House of Commons Standing Committee on Citizenship and Immigration (CIMM) in this Study is two-fold. One, we touch upon the scope and impact of AI on IRCC decisions and two, we recognize how future application of AI is very much rooted in our past. Consideration of our sociohistorical context will help to guide effective AI governance and implementation, facilitating transformative gains from processing to access and, finally, to delivery (decision-making) by acknowledging, detecting, and mitigating bias. Following a brief look to our past, we offer CIMM ten recommendations for navigating the way forward.

**Perpetuating Historical Disadvantage**

Canada’s immigration history is rife with explicit examples of discrimination on the basis of race and national origin. There was the Chinese head tax, the internment of racialized populations during World War II, the “continuous journey” legislation targeting migration from Asia, and the characterization of Black migrants as “unsuited to the Canadian climate”, to name but a few.1 More recently, the *Immigration Act* of 1952 created tiers of immigrants.2 The Act continued to allow the Government to place quotas on the entry of “less preferred” (namely, racialized) migrants. While explicit prohibitions on the basis of race were removed from immigration legislation in 1962, challenges still persist.3

In a 2014 Federal Court of Appeal case, *Tablingo v. Canada (M.C.I.)*4, hundreds of appellants (unsuccessfully) raised allegations that the termination of applications in the Federal Skilled Worker (FSW) backlog following the passage of the omnibus ‘Budget Bill’ (Bill C-38: the *Jobs, Growth and Long-term Prosperity Act*) specifically targeted racialized populations.5 In support of this position, the appellants highlighted that while 67% of the FSW backlog was held by Asia, the Middle East, and Africa, those regions held 92% of the FSW backlog when the program was officially terminated in 2012, suggesting that final efforts to process the backlog had primarily focused on applications from Europe and the Americas.6 If nothing else, the optics were terrible.

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2 Gerald E Dirks, “Immigration Policy in Canada,” The Canadian Encyclopedia, February 7, 2006,

3 The Globe and Mail, “Canada urged to investigate decline in Nigerian study permit approvals,” 2 December 2021, online: Canada urged to investigate decline in Nigerian study permit approvals - The Globe and Mail


5 Bill C-38 specifically retroactively terminated applications in the Federal Skilled Worker (FSW) backlog which had not received a selection decision by 29 March 2012.

6Respondent’s Appeal Book, pg. 237 (FSW Inventory, July 2012), Appellant’s Appeal Book, pg. 591 (Total Inventory, applications received before 27 February 2008), Respondent’s Appendix to the Appeal Book, pgs. 790-791 (post-hearing tables). Considering processing rates globally, 91.89% of all terminated files originated in Africa, the Middle East, Asia, and the Pacific. The other 8.09% of the terminated files originated in Europe and the Americas. For further information, see Respondent’s Appendix to the Appeal Book, pgs. 790-791 (post-hearing tables)
More recently, the Pollara Strategic Insights Final Report on IRCC Anti-Racism Employee Focus Group\(^7\) highlights ongoing concerns regarding bias in the immigration system, including by underlining differential refusal rates on migration applications by country. The Report also spoke to examples of racist microaggressions\(^8\) experienced by staff within IRCC, suggesting some employees may hold implicit biases that could impact decisions. The report notes “widespread internal references to certain African nations as “the dirty 30”, as well as a “manager referring to Latin American applicants as people who just come here to collect social insurance”\(^9\).

While brief, these examples suggest that despite efforts to address racisms and bias in the immigration system, these are ongoing issues that may impact the processing of applications.\(^10\) In the context of a discussion of AI, this is particularly troubling given that decisions on these applications are the data driving this technology. The former Director General of the Immigration Department, Andrew Griffith, acknowledged this issue, stating: “The challenge is not to embed biases into the system and create extra barriers for applicants”.\(^11\)

Since 2018 large volumes of Temporary Resident Visa (TRV) applications have been accessed to train AI technology to “triage” the intake of TRVs into three tiers based on eligibility (low, medium and high complexity).\(^12\) Prior to triaging, complex cases in the intake are identified based on rules developed by experienced officers (“officer rules”). These cases are removed and triaged directly to officers for decision-making according to regular procedures, without any processing by an analytics model.\(^13\) Neither deciding officers, nor the public, have access to these confidential rules or to the data used to program the technology in the first instance. Yet understanding what information directs each eligibility and admissibility triaging decision is critical to the effort to identify any embedded bias in the tool, as well as in assessing both if and how triage decisions create barriers that are replicated in Officer assessments in practice.\(^14\)

Petra Molnar has warned that “biases of the individuals designing an automated system or selecting the data that trains it can result in discriminatory outcomes that are difficult to challenge because they are opaque”.\(^15\) “Cookie cutter” decisions thus potentially reproduce established biases without the potential for critical review by a human decision maker attuned to these issues. Critics like Petra Molnar highlight that technology is far from neutral. It reflects norms, values


\(^12\) IRCC (undated). Overview of the Analytics-Based Triage of Temporary Resident Visa Applications. (hereafter “IRCC, “Overview”), pp. 3-4. Note that applications identified as low complexity and low risk automatically receive positive eligibility decisions, allowing officers to review these files exclusively on the basis of admissibility. High and medium complexity applications are sent for review by an officer for both eligibility and admissibility.

\(^13\) Ibid


and power in society that can be hidden within algorithms.

Feedback data is additionally provided to the system on “non-compliant” temporary residents when the model is re-trained through Machine Learning (ML), thereby adjusting the machine to “reflect the changing environment” and supporting efforts to identify the “likelihood of future outcomes based on historical data”. This is fundamentally concerning, however, because the predictive functions can again be extended to potential decision-making. Yet we do not have access to the data used in this process and are thus unable to identify and assess any potential procedural fairness or bias in these decisions on compliance. This type of approach has led to serious issues.

**Use of AI by government organizations internationally: A few examples**

Concerns surrounding the development and implementation of AI technology driven by biased data are not limited to the Canadian context. With the explosion of the use AI globally there has been a concomitant effort to both highlight and address these issues in practice. For example, In 2013, the Department of Homeland Security (DHS) in the U.S. launched the “Risk Classification Assessment” (RCA) tool, designed to assist Immigration and Customs Enforcement (ICE) officers in determining whether a foreign national ought to be released or detained while awaiting deportation proceedings. While the RCA tool seemed, in theory, to represent a harmonious balance between technology and discretionary decision making, in that it could streamline processes, reduce the amount of individuals in immigration detention, and flag only high-risk individuals for detention, its application had the opposite effect. Bias was uncovered in decisions made by the RCA tool by a research team at Duke University Law School. It was found that the RCA tool alone was not the cause of the result, but the policy and law that informed it and officer bias that trained the algorithm reinforced bias against migrants.

Similarly, the AI powered iBorderCRTL – a lie detector used by the European Union at borders – was demonstrated to discriminate against “people of colour, women, children, and people with disabilities”. In New Zealand technology to identify potential overstayers was modelled using information such as age, country of origin, gender, usage of public health services, law enforcement encounters, and immigration status. Immigration New Zealand was criticized for the use of ethnicity data in its risk modelling as it had the potential to further marginalize racialized groups. This resulted in the passing of the Algorithm Charter, discussed further below.

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16Machine Learning (ML) is employed as a form of AI; it is an activity that supports machine intelligence by enabling foresight through the learning of outcomes. ML also supports predictive analytics, which refers more generally to “the use of data, statistical algorithms and machine intelligence by enabling foresight through the learning of outcomes. For further information, please see: IBM (undated). “Data Science and Machine Learning”. Available: https://www.ibm.com/analytics/machine-learning (hereinafter “IBM, “Data Science””); SAS. “Predictive Analytics: What it is and why it matters”. Available: https://www.sas.com/en_ca/insights/analytics/predictive- analytics.htm

17IRCC, Overview


23RNZ, “Immigration NZ pilot described as racial profiling,” YouTube, 5 April 2018. https://www.youtube.com/watch?v=nfqPCQmnVKs&list=I149&ab_channel=RNZ
Domestic use of AI: Moving forward with careful consideration

AI technology is powerful in scope and as such must be carefully deployed. It begins with lawful parameters. *The Economic Action Plan 2015 Act, No. 1*[^24] introduced new provisions and amendments into the *Immigration and Refugee Protect Act (IRPA)*[^25], legislating authority for using electronic means to “administer and enforce immigration programs” at sections 186.1 and 186.2.[^26] These sections empower the government to use automated and AI systems to make decisions, but they do not highlight the limits of that power or provide any detail on how these systems will be built, implemented, and reviewed. The potential use of AI was not discussed in any of the readings and debates of this legislation in either the House of Commons or the Senate.[^27] While AI was still emerging in 2015, it is surprising that its use did not warrant even a brief discussion. Despite a few subsequent amendments, no substantial legislative guidelines have been developed.[^28]

There is a need for action now. Guidance exists on how we can move forward to address these governance issues. As canvassed by A.D. (Dory) Reiling, there are over two dozen documents that set out ethical principles for the use of AI globally.[^29] The Commission for the Efficiency of Justice of the Council of Europe in particular has provided five core ethical principles for the use of AI in the administration of justice.[^30] Reiling provided a summary of these five key principles, which can be adopted in legislation. We expand on these principles below to offer ten recommendations.

1. **Legislative enactment for respect of fundamental rights in the use of AI**

   Legislation should be developed, consulted upon and adopted that defines AI and regulates its uses to ensure that the design and implementation of any technology is compatible with such fundamental rights as privacy and access to justice.

2. **Legislative enactment for equal treatment in the use of AI**

   To avoid discrimination between individuals and groups, efforts should be made to clearly legislate what information is being collected, stored, shared, and used.[^31] We can and must avoid generative[^32] and segmented[^33] algorithms. IRCC policy and/or program directives are not enough.

[^24]: S.C. 2015, c. 36.
[^26]: Ibid.
[^29]: A. D. (Dory) Reiling, ‘Courts and Artificial Intelligence’ (2020) 11(2) International Journal for Court Administration 8. DOI: [https://doi.org/10.36745/ijca.343](https://doi.org/10.36745/ijca.343) (hereinafter Reiling, “Courts and AI”). Note that while the article focused on how AI can be used in court practice, the principles discussed have wide application.
[^32]: These algorithms pose a serious risk for society in that they can create false media through the use of sophisticated bots. If a machine’s generative algorithms learn from data that itself was created through poor judgement, there is a possibility that the AI will replicate such mistakes. For example, a Microsoft chatbot began to replicate hate speech after conversing with several individuals (it learnt the algorithms through data analysis of undesirable information). See: Kraft, Amy (25 March 2016). “Microsoft shuts down AI chatbot after it turned into a Nazi”. *CBS News*. [https://www.cbsnews.com/news/microsoft-shuts-down-ai-chatbot-after-it-turned-into-racist-nazi/](https://www.cbsnews.com/news/microsoft-shuts-down-ai-chatbot-after-it-turned-into-racist-nazi/)
[^33]: This essentially refers to the division of clients into groups that are comprised of individuals with common characteristics. The aim here is increased effectiveness in pre-emptive targeted interventions such as special outreach or directed marketing and policy making. While the pre-emptive nature of such a system can be of use at times, the outreach gained from it is reflective of the system itself, meaning bias and underrepresentation at the outset (in the categorization stage) can occur. Moreover, the collection and use of the vast volume of personal information
3. Legislative enactment for data security and transparency in the use of AI

Legislation should set out minimum operating requirements for safe use, storage, and dissemination to ensure the data used and its sources cannot be altered, with models that are multidisciplinary in design and secure technologically.\(^{34}\) Choices made, data and assumptions used should be readily accessible to third parties to ensure legal protection against decisions based on those choices, with the possibility of judicial review by the courts. Transparency should further extend to the purposes for which the system is used; training data used; an indication of the extent to which the system replaces, modifies, or augments a formerly human-led decision-making process; and the system’s rate of error (including the likely rate of false positives/negatives).

4. Legislative enactment of AI under user control

AI must remain under user control to ensure that tools cannot decide by themselves and do not prescribe anything, including having the ability to easily deviate from the outcome of the algorithm when needed.\(^{35}\) As per recommendation nine, those who train AI processes need to be given clear roles and responsibilities to allow for a system of governance at the highest levels.

5. Legislative enactment of an Algorithm Charter

Before AI is implemented, it must be ensured that the algorithm and basis upon which the AI is programmed to make recommendations complies with law and policy to ensure the rights of those impacted by the outcomes are not infringed. In addition to the suggested legislative amendments proposed, a standalone general Algorithm Charter should be enacted for all AI uses in Canada.

New Zealand became the first nation to develop an Algorithm Charter that states what governments can and cannot do in their use of AI measures.\(^{36}\) This Charter has a particular emphasis and commitment to directing government agencies on how to carefully utilize algorithms while striking a balance between privacy and transparency.\(^{37}\) Moreover, this Charter aims to minimize and eliminate unintended bias in the use of algorithms which can result from training by humans whose actions may ultimately have implicit biases or errors, including through the development of a risk matrix.\(^{38}\) The goal is that transparency will be increased, and privacy, ethics, and human rights will be safeguarded. Key features of an innovative AI Charter in the Canadian context will similarly include a commitment towards transparency, intelligibility, and equality. This will ensure fair application of AI both within and outside of the immigration system.

6. Legislated definition of the use of AI

required to categorize individuals can pose privacy concerns. The complexity of such a system can make the explanations of how they function very difficult as well. This can result in automated decisions that ultimately do not provide sufficient information to explain how the system came to the decision it came to, causing issues of transparency.

\(^{35}\) Ibid, p. 6-7
\(^{36}\) The Conversation, “Transparent AI screening”
\(^{38}\) Ibid
Any legislation and/or policy adopted must provide a clear and explicit definition of AI use. This will ensure future accountability and oversight. A report released by the New Zealand Law Foundation (NZLF) in 2019 speaks to this key consideration. The 2018 Algorithm Assessment Report from the New Zealand government defines “operational algorithms” as, “analytical processes [which] interpret or evaluate information (often using large or complex data sets) that result in, or materially inform, decisions that impact significantly on individuals or groups”. The NZLF report determined that this definition was too vague as it explicitly excluded certain AI algorithms (i.e., algorithms used for policy development and research). In order to give the definition of AI beneficial purpose, New Zealand’s Privacy Commissioner and the Government Chief Data Steward required that the collection and subsequent use of public data must deliver “clear public benefit” such as “improved efficiency, which reduces cost for the taxpayer (for example, operational algorithms used by Inland Revenue to administer the tax system)”.

7. Legislative requirement for Algorithmic Impact Assessments for all AI uses

Data should be consolidated and compiled through a safe and secure process, to protect privacy and ensure reliability of information. As a protection to decision-making, we must aspire to more than responsible AI governance but innovative AI governance. There is an opportunity for Canada to become a world leader and codify in law these protections. Only two of IRCC’s AI systems have been assessed with the AIA tool, reports for which are available online: the triage of overseas temporary resident visa (TRV) applications and spouse or common-law partner in Canada. The findings and use of these tools are very difficult to follow and ultimately opaque.

8. Legislative requirement for transparent triaging and decision-trees

We highlighted above that without a proper level of human oversight that is both internal and external to the organization, systemic problems can go undetected and unchallenged, resulting in long term negative impacts that will certainly be devastating for applicants. Transparent triaging and decision-trees are integral to understanding the application, scope and impact of AI use. Again, the use of AI should enable individual freedoms, rather than put them at a disadvantage.

9. Legal training requirements should be enacted

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41 Ibid
42 We note here that Algorithmic Impact Assessments have been completed for two of IRCC’s AI systems, meeting some of these goals. Reports for assessments of the following programs are available online: the triage of overseas temporary resident visa (TRV) applications and spouse or common-law partner in Canada. A key finding from the reports as it pertains to the workings of the two systems is that both systems, while not making any ineligibility determinations, do ‘sort’ applications by eligibility. A stark contrast between the two reports, however, lies in the fact that the former accounts for the system’s explainability by relying on the fact that the impact of TRV refusals on applicants is “temporary,” whereas the latter is slightly more sensitive to the unforeseen negative impacts the system can have, such as bias and discrimination, and acknowledges that IRCC will need to be proactive in identifying those negative impacts and mitigate them. It is noted that the latter report was released about 7 months after the former report, and thus this contrast represents a positive trend in IRCC’s acknowledgement of the need for its system’s transparency and explainability. For further information, please see: IRCC. “Algorithmic Impact Assessment – Spouse or Common-Law Partner in Canada Advanced Analytics Pilot,” Government of Canada, Available: https://open.canada.ca/data/en/dataset/d41f9ec2-bf01-4b2a-bd8d-1b3a8424f534
43 “Algorithmic Impact Assessment – Advanced Analytics Triage of Overseas Temporary Resident Visa Applications,” Government of Canada, online: Algorithmic Impact Assessment Results (windows.net)
44 IRCC, Final Report.
Training must be undertaken that is reflective and responsive to vulnerable persons and groups, such as racialized workers, LBGTQA+, women, persons with disabilities, ethnic minorities, and children.\(^{47}\) Many of the recommendations highlighted in the Anti-Racism Report should be legislated in support of achieving this goal, including through introduction of an Anti-Racism Secretariat, new qualification requirements for Executives, and mandatory review of policies, practices, and procedures to identify systemic biases/racisms. Any new training must additionally extend to those individuals making decisions on applications, including through education on the universality of implicit bias. Finally, legislated personnel allocations should be instilled to ensure diversity and inclusion balances are maintained for those that train and drive the technology.

10. Legislated external audits with enforcement powers and external consultation

While IRCC works with its internal and external stakeholders in maintaining standards for its AI systems, there is a need for a mandate that requires not only a more systematic external audit but also legislated follow-up to the results of the audit. Currently, while Algorithmic Impact Assessments\(^ {48}\) and tools are being applied by IRCC, programs continue to run without mandated external follow-up on and/or mitigation of impact areas. While problem areas may be identified there is no current requirement that they be addressed in practice or eternally. The audits would ensure for example that recommendations set out in this brief are maintained and enforced. The import of this earnest undertaking cannot be understated, and the consequences are significant. The need also to work with all stakeholders is acute given the rapidly evolving challenges ahead. IRCC is undoubtedly staffed by many hard-working well-intentioned individuals that want to make a positive change.\(^ {49}\) Our counsel, academic, and AI community in Canada are also well positioned to make a meaningful contribution to IRCC on these technological issues on an ongoing basis to mitigate potential harms.

Conclusion

What we must avoid however, is the sharp and shiny new tool of AI bypassing consensus building, measured scrutiny and worse yet, the rule of law, devolving immigration decision-making into a moving target based upon the latest undisclosed algorithms as we have seen internationally resulting in harm and further entrenchment of bias, racialization and marginalization. If we put in the collective work now, pressing for thoughtful legislative action requiring collaboration, oversight, transparency and responsible implementation, we have the potential to become a world leader. The ten recommendations we hope advances the conversation and the legislative details emerge following extensive consultation. Ultimately, we must agree that we are striving together to fashion our immigration law that preserves our international reputation and promotes the equality, integrity, and safety of our programs as well as economic, social, and cultural nation building on a solid, fair, and predictable legal foundation. One where IRCC decision-making is a shining example of fairness and inclusion, undisturbed no matter the international and technological pressure that may be on the horizon.

\(^{47}\) Ibid.
\(^{48}\) IRCC Final Report, p. 8
Bellissimo Law Group PC

Bellissimo Law Group PC has a well-respected and lengthy history with immigration stakeholders. Our multi-cultural and talented team represents individuals from all over the world in Canadian citizenship, immigration, and refugee matters with experience dating back over forty-five years. We have engaged in extensive community, policy, pro bono, and academic outreach by virtue of our legal publications, policy positions, media, and speaking engagements throughout Canada over the past decades.

Bellissimo Law Group PC is responsible for key citizenship and immigration court decisions, policies, and publications that have shaped immigration law. We work with Immigration, Refugees and Citizenship Canada, Service Canada, the Canada Border Services Agency, Federal Court of Appeal, Federal Court of Canada, Department of Justice, and the Immigration and Refugee Board, no only on individual cases but also at the highest levels through our extensive outreach efforts.

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Mr. Bellissimo has testified before Parliamentary and Senate Committees on several proposed amendments to immigration law over the years. He has been a lead on policy papers, legal analyses, and proposed recommendations to government on behalf of immigration advocacy associations and in his personal capacity.

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