THE INTEGRATION OF ARTIFICIAL INTELLIGENCE IN THE CANADIAN REFUGEE ADJUDICATION PROCESS: THE RISK OF BIAS AND THE MITIGATION OF SUCH POTENTIAL RISKS

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ABSTRACT

This thesis critically examines the integration of artificial intelligence (AI) into the refugee claims determination process at the Immigration and Refugee Board (IRB) of Canada. Given the growing global trend toward using technology in legal decision-making, the IRB has significant opportunities to embrace the current digital shift and enhance the refugee determination system. The primary objective of this research is to demonstrate how AI can be responsibly deployed to enhance the efficiency, consistency, transparency, and overall fairness of refugee adjudication procedures, while also upholding administrative law and ethical standards.

The study begins by examining the current refugee claims determination process in Canada, highlighting existing procedures and identifying areas where artificial intelligence tools can be effectively incorporated. Drawing on multidisciplinary literature, including legal scholarship, technology ethics, and administrative law frameworks, the thesis identifies critical considerations related to algorithmic transparency and potential bias. A key aspect of this thesis is its examination of accountability and mechanisms for mitigating bias.

By analyzing various AI tools and legal frameworks, several recommendations emerge for the IRB. This research adds to the growing body of scholarship advocating for the informed, ethically responsible, and sound integration of advanced technology within humanitarian and legal adjudication contexts.

DEDICATION

To the memory of my most beloved late father, His Worship, Ikechukwu Ifeanyi Udeze (Chief Magistrate Emeritus), who slept in the Lord on June 28, 2024.

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DISCLOSURE STATEMENT ON USE OF GENERATIVE AI

I disclose that generative AI was used in this project to review some of the literature for the thesis. I manually reviewed all research materials to ensure the accuracy of the review. Generative AI was not used in writing or editing any other part of the thesis.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Artificial Intelligence (AI) is acclaimed to be the "fastest moving technology".[1] According to Peter Brown, if AI is truly the fastest-moving technology, then law is definitely lagging behind.[2] The use of AI to supplement the use of human expertise in decision making has been termed 'automated decision making'. In its Directive on Automated Decision-Making (DADM), the government of Canada defined the term; 'automated decision system' as "any technology that either assists or replaces the judgment of human decision-makers."[3] These systems draw from fields like statistics, linguistics, and computer science and use techniques such as rule-based systems, regression, predictive analytics, machine learning, deep learning, and neural nets."[4] The government of Canada has over the years gradually introduced the use of artificial intelligence in its processing of immigration applications. Immigration and refugee claims in Canada are handled by three sister bodies namely: Immigration, Refugees and Citizenship Canada (IRCC), the Immigration and Refugee Board of Canada (IRB), and Canada Border Services Agency (CBSA). IRB is the administrative body responsible for processing refugee claims in Canada.

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[1] Peter Brown, "Artificial intelligence: The Fastest moving Technology" (9 March 2020), online: <https://www.law.com/newyorklawjournal/2020/03/09/artificial-intelligence-the-fastest-moving technology/?slreturn=20230830042444>.
[2] *Ibid.*
[3] Treasury Board of Canada Secretariat, Directive on Automated Decision-Making, (Ottawa: Government of Canada, last modified 1 April 2021), cl 5.5 [DADM]. See Chapter Five of the thesis for a more detailed analysis of this directive.
[4] *Ibid.*

Human decision makers continue to make the final decisions for now; however, discussions about how AI might be integrated into the administrative decision-making processes have been ongoing for years. A study by the University of Toronto's Citizen Lab, *Bots at the Gate*,[5] examines the risks of AI systems in Canadian immigration and refugee systems. It emphasizes how AI could perpetuate biases and lacks accountability, particularly when used in life-altering decisions like refugee determinations. The report discusses Canada's exploration of AI tools and their implications for procedural fairness and human rights. Legislative measures like the *Directive on Automated Decision-Making*[6] and the proposed *Artificial Intelligence and Data Act*[7] are part of Canada's ongoing effort to regulate AI in public administration, including immigration. These frameworks aim to balance efficiency with safeguards against bias, which directly impacts discussions on expanding AI's role in refugee determination systems.

This area remains a point of research, analysis, and advocacy, with many experts calling for more oversight and transparency before any widespread adoption of AI in such critical decision-making processes.

1.2 Research Question

In what ways might the integration of AI tools in refugee claims adjudication processes present new risks for the introduction of bias into the system, and how can those potential risks be mitigated?

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[5] Petra Molnar, & Lex Gill, "Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System," International Human Rights Program and The Citizen Lab (September 2018), online (pdf): The Citizen Lab <https://citizenlab .ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report- Web-V2.pdf>.

[6] DADM, supra note 3.

[7] Government of Canada, "Artificial Intelligence and Data Act" <https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act>. See Chapter Five of the thesis for a more detailed analysis.

This thesis will argue that artificial intelligence tools can be employed in some of the processes through which the IRB arrives at decisions for refugee claims. Claims are streamed based on their complexities. Less complex claims are processed under the Less Complex Claims Stream through the file-review process (i.e., without a hearing) and short hearing process. During the file review process, claims that are not categorized as less complex are sent to a regular hearing by a Refugee Protection Division (RPD) Member or an Adjudicative Claims Officer (ACO). At the hearing stage, RPD Members must read and digest several Disclosures and Country Conditions Information documents related to the claim and the countries of reference under each file. Currently, these cumbersome processes, among others, are handled solely by human actors, contributing to the slow pace of processing refugee claims in Canada.[8]

The Immigration and Refugee Board (IRB) of Canada uses a combination of case management tools to triage refugee claims based on their complexity. One of the key approaches includes "streaming" claims, where simpler claims are fast-tracked for quicker resolution, while more complex claims undergo a full hearing process. This strategy allows the IRB to handle the high volume of claims more efficiently, though it is not reliant on artificial intelligence at this time. The IRB created a Taskforce for Less Complex Claims (TFLCC), which identifies cases that can be resolved without a hearing. These cases are typically processed faster, using specific criteria.

[8] See recent statistics on refugee claims in Canada; Immigration and Refugee Board of Canada, "Refugee Claims Statistics" (25 May 2026), online: <*https://irb-cisr.gc.ca/en/statistics/protection/Pages/index.aspx*>.

The IRB does not officially rely on artificial intelligence (AI) to make final refugee claim determinations.[9] However, having worked as a Registry officer and a Decision maker with the IRB, l will argue in this thesis that AI tools can be explored to stream claims based on their complexity or assist with administrative tasks such as triaging and sorting claims and various applications, and even processing less complex positive claims.

The streaming of refugee claims currently involves algorithms. These algorithms reflect precisely the type of bias that my project is interested in, and that artificial intelligence has the potential to address. These technologies are seen as a potential solution to manage high volumes of immigration and refugee claims more efficiently. There are concerns about bias, fairness, and transparency; specifically, if poorly implemented, AI systems could exacerbate existing biases or errors, potentially leading to wrongful rejection of claims and exposing asylum seekers to severe harm, including deportation to their countries of persecution. However, this thesis argues that these concerns of bias can be effectively managed to minimize bias in refugee claim decisions. This thesis argues that AI tools can enhance some of these processes, leading to greater efficiency and effectiveness in the refugee determination system, by examining proposals currently being debated on these issues.[10] The thesis further examines the risks associated with using artificial intelligence tools and explores the guardrails and oversight mechanisms that can be implemented to mitigate these risks.

[9] Government of Canada, "Guides on the use of Generative Artificial Intelligence" (2024). Online: <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use- ai/guide-use-generative-ai.html>.
[10] Niamh Kinchin, "Technology, Displaced? The Risks and Potential of Artificial Intelligence for Fair, Effective & Efficient Refugee Status Determination" (2021) 37:3 Law in Context 45. <https://doi.org/10.26826/law-in-context.v37i3.157>.

1.3 Research Methodology

This project is situated within the scholarly tradition of Law and Society. Scholars within the Law and Society tradition approach the impact of AI on refugee claims in Canada by exploring the intersection of technology, law, and social justice. Scholars within this tradition typically analyze how AI tools impact legal decision-making process in administrative law and how they may interfere with administrative law principles such as procedural fairness and natural justice. They examine whether AI can make objective, unbiased decisions or if biases in algorithms could compromise fairness for the affected vulnerable populations. Some of these scholars, such as Amy Salyzyn,[11] Jennifer Raso,[12] and Petra Molnar,[13] adopting a Socio-legal perspective, have studied the transparency of AI decision-making, questioning how decisions are made and the extent to which algorithms are accountable to those affected by these decisions. Jennifer Raso has examined the policy frameworks surrounding AI use in decision making, advocating for safeguards, oversight, and policy adaptations.[14]

This research follows in the footsteps of the Law and Society tradition to argue that AI systems can help streamline processes and reduce the backlog of refugee claims, potentially benefiting refugee claimants and providing more access to justice, and examine if these tools may inadvertently create barriers to justice. This thesis adopts a sociolegal frame to evaluate the IRB's case management strategies, particularly the factors considered when classifying claims

[11] Amy Salyzyn, "AI and Legal Ethics" in F. Martin-Bariteau & T. Scassa, eds, *Artificial Intelligence and the Law in Canada* (LexisNexis Canada, 2021) 301 at 310.
[12] Jennifer Raso, "AI and Administrative Law" in F. Martin-Bariteau & T. Scassa, *Artificial Intelligence and the Law in Canada, eds* (LexisNexis Canada, 2021) 181 <http://dx.doi.org/10.2139/ssrn.3734656>.
[13] Petra Molnar, "Automating Migration: Litigating AI in Immigration and Refugee Decision-Making" In J Presser, J Beatson & G Chan, eds, *Litigating Artificial Intelligence* (Toronto: Emond Publishing, 2021) 209.
[14] Jennifer Raso, "AI and Administrative Law" *supra,* note 12.

into various types, categories, and streams. Where these factors are not thoroughly taken into consideration, there may result some sort of arbitrariness in the categorization of refugee claims. Professor Rehaag argued in his recent article on claim types of the Immigration and Refugee Board of Canada, that there is some amount of arbitrariness in how claims are framed with some appearing very broad and others more specific.[15] In other words, going by the current claim categories, some narratives may be challenging to fit into some of the already very specific categories while some categories are too broad which makes the scope wider than envisaged.[16] The project further argues that assigning refugee claims to particular claim types, categories, and streams creates a sort of bias that stems from the subjectivity of the officer assigned to classify those refugee claims. Professor Rehaag also highlighted another issue: where claims are placed in a particular category, assuming some part of the claim narrative or information in the claim changes, there is a problem that the claim type might not be updated to reflect the changes in the narrative.[17]

However, though I agree that there may be some arbitrariness and subjectivity in assigning claims, refugee claimants are not expected to change their narratives in such a way as to warrant placing the claim in an entirely different claim type or category without reasonable explanations. For example, a refugee claimant whose basis of claim was based only on an imputed political opinion cannot suddenly start alleging persecution based on sexual orientation if this was never part of the claim from the beginning. I recognize that the concept of sur place claims may allow some claimants to add new grounds to their already existing claims. However, making such

[15] Sean Rehaag, "Claim Types in Canada's Refugee Determination System: An Empirical Snapshot (2013–2021)" (2024) 40:1 Refuge Can J Refug 1 at 7.
[16] *Ibid.*
[17] *Ibid*.

radically different changes to the basis of claim often calls into question the credibility of the claimant. It is then the responsibility of the Member to assess the explanations given and decide whether to find them reasonable and accept them or not reasonable and reject the explanations.

Situating this project within the law and society tradition is appropriate because it aligns well with the complex, interdisciplinary nature of the issue. This research sits at the crossroads of law, technology, ethics, and social justice. The Law and Society scholarship is well-positioned to handle such complex and multidisciplinary relationships by examining how legal practices interact with broader social, cultural, and technological contexts, thus making it suitable for assessing the implications of AI in refugee claims and ensuring that the adoption of technological systems aligns with both legal standards and social justice principles. Law and Society tradition also uses methods that go beyond reading the law, including by drawing on methodologies from the social sciences like qualitative, quantitative, and mixed methods.[18]

Equity and Justice as a branch of law and society is preoccupied not just with law on the books (i.e. doctrinal law) but also law in the streets,[19] emphasizing the need for fair and just treatment of all individuals under the law by assessing how legal norms and processes play out in practice, especially with regard to marginalized groups. As refugee claimants are often in vulnerable positions, by focusing on equity and justice, this research can assess whether AI tools in refugee processing uphold or undermine these values, ensuring that marginalized communities are not

[18] Mathieu Deflem, Introduction: sociology, society, law. In: *Sociology of Law: Visions of a Scholarly Tradition*. (Cambridge University Press, 2008) 1-14.
[19] Eve Darian-Smith, *Laws and Societies in Global Contexts: Contemporary Approaches* (Cambridge University Press, 2013).

further disadvantaged by automated systems.[20] Law and society as a tradition focuses on the interplay between law, society, and institutions, and this offers a rich framework to explore AI's role in determination of refugee applications. Under this tradition this research will investigate how legal norms influence the design, implementation, and governance of AI tools by examining Canadian refugee law in relation to the use of algorithms in refugee decision-making.[21] Additionally, these AI tools will be analyzed to determine whether they contribute to improving access to justice or hinder it.[22]

Critical legal scholarship critiques traditional legal doctrines, exposing how power and ideology influence the development and application of laws. This lens is invaluable in this research as the thesis will argue that AI tools do not perpetuate existing structures of marginalization, but rather, if appropriately used, can empower vulnerable groups like refugees. Moreover, this critical lens will examine how data is presented in AI and analyze legal concepts such as fairness, efficiency, and impartiality in relation to the use of AI tools, assessing whether these claims might conceal systemic biases or inequities.

A combination of the empirical focus of socio-legal studies with the critical, justice-oriented perspective of critical legal scholarship will produce a nuanced and impactful analysis of AI's role in refugee claims determination in Canada. This research draws on the methodology used by Paul

[20] Petra Molnar, *Technological Testing Grounds: Migration management Experiments and Reflections from the Ground Up* (EDRi and the Refugee Law Lab, 2020) <https://edri.org/wpcontent/uploads/2020/11/Technological-Testing-Grounds.pdf>.
[21] Molnar, &Gill, *supra* note 5.
[22] Lucia M. Rafanelli, "Justice, injustice, and artificial intelligence: Lessons from political theory and philosophy" (2022) Big Data & Society 1.

Daly, Raso Jennifer and Joe Tomlinson, in their article "Administrative Law in the Digital World".[23]

This research employs a mixed methods approach. The first type of methodology is an exploration of the artificial intelligence tools available, their advantages, and limitations. I will conduct a doctrinal analysis of triaging and streaming processes used by the Immigration and Refugee Board of Canada. This is examined in more detail in Chapter Four of the thesis. The triaging and streaming processes at the IRB are public information and do not require me to go through the ethics procedure, either in the academic research setting or at the IRB.

The next question is how these AI tools are to be used in streaming and triaging refugee claims, and what laws and regulations they are subject to. Here, I am going to adopt a doctrinal legal methodology drawing from scholars like Paul Daly in his academic work, "Mapping Artificial Intelligence Use in the Government of Canada"[24] and his recent article on Artificial Intelligence and Administrative Tribunals.[25] The thesis will analyze cases, legislation, guidelines, soft law, and hard law. Secondary data will be gathered from existing academic scholarship on relevant artificial intelligence tools, which may be used to enhance the triaging, streaming, and processing of refugee claims before the Immigration and Refugee Board of Canada.

[23] Paul Daly, Jennifer Raso & Joe Tomlinson, "Administrative law in the digital world" in Carol Harlow, ed, *Res Agenda Adm Law* (Edward Elgar, 2023) 255 <http://dx.doi.org/10.2139/ssrn.4008531>.
[24] Paul Daly, "Mapping Artificial Intelligence Use in the Government of Canada" (2023) 20:1 Governance Review 74 DOI:10.7202/1106045ar.
[25] Paul Daly, "Artificial Intelligence and Administrative Tribunals" (2025), 1 online: <http://dx.doi.org/10.2139/ssrn.5041097>.

This research will employ a doctrinal legal methodology to assess the potential risks associated with utilizing artificial intelligence in the process of determining refugee claims in Canada. These risks will be evaluated alongside similar issues that may arise from human involvement in the refugee determination processes. Furthermore, the same methodology will be employed to analyze whether and how these potential risks can be mitigated. This section of the research on AI tools is situated within the field of risk assessment, as similarly adopted by Jennifer Raso in her work 'AI and Administrative Law.'[26]

1.4 Significance of Study

Though the Immigration and Refugee Board of Canada maintains that its decisions on refugee claims are made by human actors and not artificial intelligence, there is no guarantee that this position will remain so in the coming years. The Board is overwhelmed with a huge number of claims, which continues to increase in number with each new year.

The IRB manages a high volume of refugee claims annually. When a refugee claim is made, the Canada Border Services Agency (CBSA) officer or the Immigration, Refugees and Citizenship Canada (IRCC) officer reviews the claim to determine if it is eligible to be referred to the Refugee Protection Division (RPD); which is a division under the IRB that hears and determines refugee claims as a tribunal of first instance. According to statistics, in 2021, there were approximately 24,900 refugee claimants in Canada (Statista, 2021). Between January 2022 and December 2022, approximately 91,710 refugee claimants were processed by the CBSA and IRCC.[27] In 2022, around 60,158 claims were referred to the RPD, with 28,272 accepted and

[26] Raso, "AI and Administrative Law", *supra* note 12.
[27] Government of Canada, *Asylum claims by year – 2022* (October 20, 2023)

12,537 rejected, while about 223 claims were pending as of December 31, 2022.[28] Statistics indicate that in 2023, approximately 137,947 claims were referred to the IRB, with only 51,848 claims finalized and around 156,032 claims pending before the RPD as of December 31, 2023.[29] In 2024, 190,039 refugee claims were referred to RPD, with 73,456 claims finalized. As of December 31, 2024, a total of 272,440 claims were pending finalization.[30] As of March 31, 2025, there were 280,825 refugee claims before the RPD that had not been finalized, and as of December 31, 2025, 299,614 refugee claims were pending finalization.[31]

The statistics above reveal a notably high number of refugee claims made in Canada annually. The 2024 statistics of referred claims versus finalized claims show that over 110,000 claims referred to the Board in 2024 were neither concluded nor finalized.

This may necessitate using artificial intelligence tools and algorithms to determine the outcomes of these claims for quicker, cost-effective, and more efficient results. However, the need for artificial intelligence tools is not solely due to the increase in the number of refugee claims; it is primarily exigent due to the Board's responsibility to be effective with the use of public resources. This means that there is an expected increase in efficiency such that more claims can be decided per dollar of resource. It is no longer

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<https://www.canada.ca/en/immigration-refugees-citizenship/services/refugees/asylum-claims/asylum-claims-2022.html>.

[28] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – 2022* (September 1, 2023) <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2022.aspx>.

[29] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – 2023* (September 1, 2023) <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2023.aspx>.

[30] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – 2024* (May 30, 2025) <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2024.aspx>.

[31] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – January to March 2025.* <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2025.aspx>; Immigration and Refugee Board of Canada, *Claims by Country of Alleged Persecution – 2025.* <https://irbcisr.gc.ca/en/statistics/protection/Pages/RPDStat2025.aspx>.

news that the government has decided not to increase the IRB's resources to match the increase in claims. Thus, what makes the integration of AI tools in the refugee adjudication process exigent is more of a political choice not to expand resources for the board. This is where the significance of this research comes to bear, by seeking to examine the available artificial intelligence tools that may assist in streaming refugee claims according to their complexities, thereby facilitating a faster triaging of claims and prompt disposal of less complex claims.

These decisions: either approval (people who are let in) or refusals (people who are not let into Canada or allowed to remain) have some level of impact on the country's resources as well as impact on the refugee claimants. Thus, the prompt and just disposal of these claims should be prioritized by the Canadian government.

This thesis is significant in both theoretical and scholarly ways because, by examining AI's reliability and consistency, I will make a case for the need to establish systems and policies that ensure these tools are accurate, fair, transparent, and meet international best practices and accountability standards. It is essential to protect the rights and well-being of individuals, especially those of vulnerable populations, such as refugee applicants. Thus, it is crucial to ensure that these systems make just and equitable decisions, particularly in the lives of refugees, where decisions have life-altering consequences. One significant aspect of this research is that it seeks to address issues of potential bias often associated with AI tools, as they are commonly trained on historical data that may contain biases, which can perpetuate and even amplify social inequalities.

This thesis will provide a solid foundation for evidence-based policymaking, providing the knowledge needed to enact laws and regulations that ensure AI is used responsibly, transparently, and accountably, thereby making this research significant from a policy perspective. This research is crucial at this point, in terms of its relevance to shaping the future of the IRB in a way that the integration of AI tools aligns with human values, social justice, and accountability, while at the same time increasing the efficiency of the board, even with limited resources.

1.5 Structure of the Thesis

This thesis is divided into six chapters, with each chapter focusing on a particular aspect of the project and progressing chronologically to achieve a comprehensive answer to the research problem.

Chapter One of the project presents a general introduction and background of the topic. The chapter emphasizes the significance of the thesis by incorporating statistical data on the number of refugee claims filed at the Immigration and Refugee Board of Canada (IRB) over the past 3 to 5 years. This chapter introduces the research question, which focuses on the potential of adopting artificial intelligence tools in the IRB's refugee determination process and whether adopting these technologies raises any issues of algorithmic bias. Additionally, the chapter outlines the research methodology and situates this study within the socio-legal tradition.

Chapter Two is the Literature Review chapter. In this section, I conduct a detailed analysis of various articles, books, book chapters, and government documents related to artificial intelligence in the context of refugee claims, border control, and administrative law tribunal

processes. The chapter is organized into different headings, with each section highlighting a theme in the literature review.

Chapter Three ushers in the topic of artificial intelligence and algorithms. This Chapter begins by providing an overview of the current position occupied by AI in various processes and methods. This is followed by a definition of algorithms and artificial intelligence. The types of algorithms are discussed briefly, and the chapter concludes with a concise analysis of how AI functions.

Chapter Four of the project delves deeper into the refugee determination processes of the Immigration and Refugee Board of Canada. The procedure for triaging files and streaming refugee claims to various claim types is briefly analyzed, highlighting some of the factors considered when streaming claims. The less complex claims, which comprise the file review process and short hearing process, are also examined. The chapter progresses by providing an analysis of various areas and processes where artificial intelligence can be incorporated into the IRB's work. A key component of this chapter is the analysis of the potential for bias if AI is integrated into the board's processes, including an examination of the potential types of bias and their implications.

Chapter Five highlights the various mechanisms to mitigate bias in artificial intelligence systems if employed in the IRB's refugee claims determination. The chapter examines the current legal framework for regulating artificial intelligence, particularly in administrative tribunals in Canada. The legislation, Directives, and Regulations are examined for their effectiveness.

Chapter Six proposes reforms for the IRB in light of all the analyses in Chapters One to Five regarding algorithms and artificial intelligence versus refugee determination processes. The Chapter summarizes the main ideas of the thesis and offers a conclusion with recommendations. More so, it examines the limitations of the study, including my positionality as a researcher and how it influences the thesis. The Chapter concludes by discussing potential areas for future research.

CHAPTER TWO

2.0 LITERATURE REVIEW

The integration of artificial intelligence into administrative tribunals has become a rapidly growing area of interest within legal scholarship. This literature review aims to synthesize existing research on the subject, identify prevailing themes, and highlight gaps that need further exploration.

Current literature predominantly focuses on the potential of AI to enhance efficiency and consistency in decision-making processes within administrative tribunals. Scholars such as Paul Daly[32] and Benjamin Alarie[33] have argued that AI can streamline case management and reduce human error, thereby increasing the overall effectiveness of tribunals. Additionally, Amy Salyzyn has explored the ethical implications of AI deployment, emphasizing the need for transparency and accountability in algorithmic decision-making.[34]

Despite these advancements, several gaps remain in the literature. While theoretical discussions are abundant, there is a dearth of data-driven analyses that evaluate how AI influences the fairness and accountability of tribunal processes. While the use of artificial intelligence in administrative decision-making has attracted some scholarly attention, there is comparatively little research on its potential integration into the adjudication of refugee claims in Canada. Furthermore, there is a limited exploration of the legal and regulatory frameworks necessary to

[32] Paul Daly, "Artificial Intelligence and Administrative Tribunals" *supra*, note 25.
[33] Abdi Aidid & Benjamin Alarie, *The Legal Singularity: How Artificial Intelligence Can Make Law Radically Better*, 1st ed (Toronto: University of Toronto Press, 2023).
[34] Amy Salyzyn, "AI and Legal Ethics" *supra*, note 11.

govern AI use in administrative settings. With the continuous advancement of AI technologies, it is imperative to develop robust guidelines that address issues of bias, privacy, and accountability.

My thesis argues that the IRB can and ought to draw on artificial intelligence in the context of triaging files, streaming claims and determining positive less-complex claims. Hence, my project examines the issue of potential bias in using artificial intelligence in refugee claims adjudication in Canada, as well as how any such risks of bias may be mitigated, while drawing from jurisdictions where AI is currently being integrated in refugee claims processes. Although existing literature provides a foundational understanding of AI's potential in administrative tribunals, further research is necessary to address these gaps and ensure that AI integration aligns with principles of justice and equity.

The chapter commences with a review of the body of literature exploring the efficiency of AI and gradually goes into a review of some of the critics who have expressed divergent views on the use of artificial intelligence. These criticisms are important because, just as I am proposing integrating AI into refugee claims processes, there are others who think AI should not be integrated into those processes at all.

This literature review is organized into sections with distinct themes.

2.1 *Artificial intelligence as a tool to enhance fairness and consistency in refugee determination*

Barale[35] explores the intersection of refugee status determination (RSD) and machine learning (ML), arguing that ML can enhance fairness and consistency in asylum decision-making. The article examines how algorithmic assistance could mitigate human biases, streamline case processing, and reduce errors in adjudicating refugee claims. Barale positions this technological shift within broader debates on the automation of legal decision-making, highlighting both the potential benefits and ethical concerns associated with AI-driven asylum assessments. The author distinguishes between noise and bias, noting that AI is better at reducing noise but not so much at reducing bias.[36]

The study contributes to existing literature on AI in legal systems[37] by offering a focused discussion on RSD, a domain where decision-making is often criticized for subjectivity and inconsistency. Barale aligns with scholarship advocating for technology-assisted legal processes[38] but diverges by emphasizing the importance of human-AI cooperation rather than full automation. The argument that ML can introduce more justice by standardizing assessments echoes findings in AI ethics and administrative law, particularly discussions on the risks of bias in automated decision-making.[39]

However, the study presents some limitations. While it acknowledges risks such as algorithmic bias and lack of transparency, it does not fully examine AI governance in migration law.

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[35] Claire Barale, "Refugee status determination: how cooperation with machine learning tools can lead to more justice" (2023), online: <https://arxiv.org/abs/2308.11541>.
[36] *Ibid* at 3.
[37] Monika Zalnieriute et. al., "From Rule of Law to Statute Drafting: Legal Issues for Algorithms in Government Decision-Making" in *Camb Handb Law Algorithms* (Cambridge University Press, 2020).
[38] Daniel Martin Katz, Michael J Bommarito & Josh Blackman, "A general approach for predicting the behavior of the Supreme Court of the United States" (2017) 12:4 PLOS ONE e0174698.
[39] Amy Salyzyn, "AI and Legal Ethics" *supra*, note 11.

This article is relevant to my research because it highlights the possible advantages of adopting algorithmic tools in adjudicating refugee claims, which is a key aspect of my research. That being said, my research differs from Barale's as it engages with the law and with scholarship on governing artificial intelligence in refugee claims adjudication.

In line with enhancing fairness and consistency in decisions, Abdi and Alarie's book[40] explores the concept of "legal singularity," a future state in which artificial intelligence (AI) transforms legal systems into perfectly efficient, transparent, and consistent structures.[41] The authors argue that AI's capacity to analyze vast amounts of legal data, predict case outcomes, and provide real-time legal reasoning will eliminate uncertainty and enhance access to justice.[42] Positioned at the intersection of law and technology, this work builds on scholarship that examines AI's role in legal decision-making[43] and extends the debate by envisioning a radically optimized legal order. A key contribution of Alarie's study is its optimistic outlook on AI's potential to resolve legal indeterminacy. While much of the literature focuses on the risks of AI in law, including bias, opacity, and ethical dilemmas, Alarie presents a compelling argument for AI as a corrective force in legal reasoning. His work aligns with the broader movement advocating legal automation and computational law, yet it differs by emphasizing an eventual state of affairs where the law becomes "knowable with a high degree of certainty" rather than incremental improvements.

[40] Abdi Aidid & Benjamin Alarie, *supra* note 33.
[41] *Ibid* at 3.
[42] Abdi Aidid & Benjamin Alarie, *supra* note 33 at 9.
[43] See, for example, Jesse Beatson, "AI-Supported Adjudicators: Should Artificial Intelligence Have a Role in Tribunal Adjudication?" (2018) 31 Can J Admin L & Prac. 307.

Despite its strengths, the study leaves several questions unanswered. The assumption that AI can eventually create a perfectly just legal system overlooks fundamental critiques from legal pluralism and critical legal studies, which emphasize that law is inherently political and contested. For example, see the works of scholars like Professor Rehaag, who argue that law is inherently political and contested even in the refugee context.[44] Alarie's work provides a solid base which the current research can build upon, however, my research differs from it as it seeks to discover the possible ways through which algorithmic bias can be detected and ways to reduce the risks. My research explores the role of AI in adjudicating refugee claims in Canada and critically examines whether the adoption of such tools aligns with equity and procedural fairness.

Just like Alarie's foregoing article, which promotes AI's potential to resolve legal indeterminacy, Amani[45] explores the concept of "equality by design" in the context of artificial intelligence and the law, situating her analysis within the broader discourse on algorithmic fairness and bias. Her work, featured in *Artificial Intelligence and the Law in Canada*, edited by Martin-Bariteau and Scassa, examines how AI systems can be designed to promote substantive equality rather than entrench existing biases. This chapter makes a valuable contribution to the ongoing debate about the role of AI in legal decision-making, particularly in areas such as automated hiring, risk assessment in criminal justice, and government service delivery. By advocating for "equality by design," she shifts the discourse from reactive bias mitigation to proactive fairness promotion. Amani's central argument aligns with existing literature that critiques AI's potential to reinforce systemic discrimination. She engages with key concerns about data-driven biases, emphasizing

[44] Rehaag, Claim Types, *supra*, note 15.
[45] Bita Amani, "AI and Equality By Design" in Florian Martin-Bariteau & Teresa Scassa, eds., *Artificial Intelligence and the Law in Canada* (Toronto: LexisNexis Canada, 2021) 267.

that AI systems often inherit and amplify societal inequalities embedded in training data, thereby making it possible that algorithmic decision-making disproportionately harms marginalized communities. However, Amani moves beyond critique by advocating proactive measures to embed equality considerations into AI system design. This approach resonates with the "fairness, accountability, and transparency" (FAT) framework and aligns with recent efforts to establish legal and ethical guidelines for AI governance in Canada and beyond. The FAT framework comprises key ethical principles applicable to the development, deployment, and regulation of artificial intelligence systems.[46] These principles of fairness, accountability, and transparency are consistently emphasized throughout this work, as several authors have highlighted them as crucial and foundational issues surrounding the adoption of AI tools by institutions. Also, the thesis conducts a detailed analysis of various soft laws and proposed legislation in Canada that uphold these principles. This is an area that makes this article relevant to my research.
By focusing on Canadian legal frameworks, she situates "equality by design" within Canada's constitutional and human rights landscape, particularly the *Charter of Rights and Freedoms* and anti-discrimination statutes. This is the same approach adopted in my current research. By contextualizing AI bias within Canadian law, Amani contributes to a growing body of scholarship that seeks to develop jurisdiction-specific solutions to algorithmic discrimination.

While she advocates for embedding equality principles into AI design, Amani's discussion remains largely theoretical as she does not provide a detailed roadmap for implementing these principles in practice. Additionally, her analysis does not fully address the tensions between algorithmic fairness and competing legal principles, such as efficiency and security. Some

[46] Donghee Shin & Yong Jin Park, "Role of fairness, accountability, and transparency in algorithmic affordance" (2019) 98 Computers in Human Behaviour 277. <https://doi.org/10.1016/j.chb.2019.04.019>.

scholars argue that strict fairness constraints can reduce the predictive accuracy of AI models, potentially creating trade-offs between equity and effectiveness.

Similarly, Cameron, Goldfarb, and Morris[47] explore the potential of artificial intelligence (AI) to reduce false denials in refugee claims, addressing a crucial challenge in refugee law: ensuring fairness and accuracy in refugee status determination. Their work contributes to the growing discourse on AI's role in legal decision-making, particularly in asylum adjudication, where subjective assessments and procedural inconsistencies often result in unjust outcomes.
The authors argue that AI, if properly implemented, can enhance procedural fairness by mitigating human biases and improving the consistency of decision-making. They highlight the ability of machine learning models to analyze vast datasets, and "account for the lack of reliable outcome data"[48] and detect inconsistencies that human adjudicators might overlook. A key strength of their study lies in their approach, which evaluates how AI could complement existing legal frameworks by reducing erroneous denials while preserving due process protections. This aligns with broader scholarship advocating for the integration of technology in legal processes to improve efficiency and fairness.

They raise concerns regarding algorithmic bias in the application of AI to refugee claims adjudication. One key issue is the potential for bias embedded in training data. If AI systems are trained on historical asylum decisions that reflect systemic discrimination or inconsistencies, they may replicate and reinforce those biases rather than eliminate them. This is particularly

[47] Hilary Evans Cameron, Avi Goldfarb & Leah Morris, "Artificial Intelligence for a Reduction of False Denials in Refugee Claims" (2022) 35:1 J Refug Stud 493.
[48] *Ibid*, at 504.

problematic given that refugee determination is influenced by factors such as country of origin, race, gender, and political background, which could be unfairly weighted in AI-driven assessments. Their analysis echoes critical perspectives from legal scholars who warn that AI, if not properly regulated, could perpetuate systemic discrimination rather than alleviate it.[49]

The study leaves certain gaps in literature unaddressed. First, while the authors focus on false denials, they do not extensively explore the risk of AI increasing false approvals, which could undermine the integrity of the refugee determination system.[50] Second, the study primarily considers AI's role in assessing individual claims but does not sufficiently explore its potential in broader policy applications, such as predictive analytics for refugee resettlement trends or crisis response mechanisms. Additionally, while the authors advocate for regulatory safeguards, they do not provide a detailed framework for AI governance in refugee law, thereby highlighting a gap in the literature on how to effectively govern AI in refugee law while ensuring fairness and accountability.

Thus, this is where the current research comes in to fill the gap in the literature by evaluating the steps or guardrails available to mitigate the various risks associated with using AI in refugee claims adjudication.

Michael Lang's article, "Reviewing Algorithmic Decision Making in Administrative Law"[51] is relevant to this research as it evaluated some fundamental principles guiding administrative

[49] Amani, *supra* note 45; Aidid, *supra* note 33.
[50] Cameron et. al., *supra* note 47 at 506.
[51] Michael Lang, "Reviewing Algorithmic Decision Making in Administrative Law" (2021) 26:2 Lex Electronica 195. <https://canlii.ca/t/tcbx>.

decision-making concerning using AI tools. The article focused on the duty of procedural fairness in rendering administrative decisions. While acknowledging that "artificially intelligent systems might [help] to expedite decision-making, ensure the relatively equal treatment of like cases, and [eliminate] discrimination, the [author contended that] the adoption of artificially intelligent systems by administrative decision-makers [will affect the effective discharge of] the duty of fairness owed to the subjects of such decisions."[52] Procedural fairness requires that the subjects of administrative decisions have a right to be heard at an independent and impartial hearing and this includes the duty to give reasons for the decisions reached.[53] The article concludes that using algorithms will create situations where "the reasons justifying certain conclusions cannot be known and human reviewers will be unable to explain how the automated system reached the conclusion that it did."[54]

Raimy Reyes' exploration of the impact of artificial intelligence (AI) on the fundamental right to seek asylum[55] is relevant to my research and will be instrumental in outlining a framework for responsible AI usage in migration and asylum contexts. Reyes examines how AI is utilized in asylum processes, such as in refugee screening, background checks, and border control, highlighting both the potential and the risks of these technologies. For instance, AI-based tools can expedite administrative tasks, making the asylum process more efficient. However, Reyes warns of biases embedded in AI algorithms that could lead to discriminatory outcomes,

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[52] *Ibid*, at 197.
[53] *Baker v Canada (Minister of Citizenship and Immigration)*, [1999] 2 SCR 817, 174 DLR (4th) 193; *Canada (Minister of Citizenship and Immigration) v Vavilov,* 2019 SCC 65, 441 DLR (4th) 1.
[54] Lang, *supra* note 51 at 206.
[55] Raimy Reyes, "Artificial Intelligence Technologies and the Right to Seek and Enjoy Asylum: An Overview." *Artificial Intelligence and Human Rights*, ed by Jeroen Temperman and Alberto Quintavalla, (Oxford University Press, 2023) 311.

especially in identifying credible asylum claims.[56] This chapter provides a detailed analysis of the ethical, legal, and policy implications of deploying AI in contexts sensitive to human rights, stressing the importance of balancing security needs with humanitarian protections. The chapter is divided into two subsections. In the first, AI Systems and Refugee Screening, Reyes discusses the advantages of using AI for rapid data processing and identity verification but raises concerns over accuracy and potential bias. The chapter suggests that current AI systems can amplify existing prejudices, potentially violating the principle of non-discrimination in international asylum law. Reyes emphasizes the need for transparent and fair AI practices to prevent unjust denials of asylum based on flawed data analysis or algorithmic bias. In the second subsection, Policy Proposals for AI in Asylum Management**,** Reyes proposes several policy recommendations aimed at regulating AI use in asylum cases. These proposals include regular audits of AI algorithms, enhanced oversight by international bodies, and mandatory transparency in AI decision-making processes.

My research differs from Reyes's article as Reyes's work focuses on international asylum law, whereas my study explores the Canadian immigration law and its refugee tribunal processes. My research extends beyond the use of AI for identity verification and data processing but also explores the possibility of using AI to produce certain categories of refugee claim decisions.

Still on the issue of AI's potential to ensure fairness and consistency as well as improve access to justice, Chen et al.[57] examine the extent to which asylum court decisions can be predicted early in the adjudication process using machine learning techniques. Their study contributes to the

[56] *Ibid* at 320.
[57] Daniel Chen, et al, *Early predictability of asylum court decisions* (London United Kingdom: ACM, 2017).

growing discourse on the role of artificial intelligence (AI) in legal decision-making, particularly in the context of asylum determinations. By applying predictive modeling to asylum cases, the authors highlight the potential for AI to forecast case outcomes based on early-stage information, raising important questions about the objectivity and transparency of judicial decision-making in refugee law. A key finding of the study is that asylum decisions are highly predictable based on early-stage factors such as the identity of the judge, the country of origin of the applicant, and procedural elements. The authors demonstrate that, in many instances, these factors alone can account for a significant portion of the variance in decisions, suggesting that external elements play a substantial role in asylum adjudications, rather than solely the merits of the case. This aligns with broader concerns in the literature regarding judicial inconsistency in refugee status determinations.[58] Chen et al. employ machine learning techniques to analyze patterns in asylum rulings and find that algorithmic models can predict outcomes with a high degree of accuracy. This raises both opportunities and challenges. On one hand, their research suggests that AI could be leveraged to improve consistency and flag potentially biased decisions. On the other hand, the study also underscores the risk that asylum outcomes may be disproportionately influenced by factors unrelated to an applicant's actual claim, such as judicial leanings or court-specific practices.

Another significant contribution of the study is its methodological approach. By using computational techniques to analyze legal decisions, the authors illustrate the value of data-driven approaches in understanding judicial behavior. This aligns with a broader trend in legal

[58] Jaya Ramji-Nogales, Andrew Schoenholtz & Philip Schrag, *Refugee Roulette: Disparities in Asylum Adjudication* (NYU Press, 2009).

scholarship advocating for empirical analyses to uncover systemic biases in legal decision-making.[59]

Although the study makes significant contributions, it leaves certain questions unaddressed, highlighting gaps in the literature that warrant further exploration. The study establishes a strong correlation between early-stage factors and final asylum decisions, but it does not fully explore the causal mechanisms behind these patterns. For instance, while the identity of the judge is a strong predictor of case outcomes, further research is needed to determine whether this is due to implicit bias, differences in judicial training, or institutional factors. While the authors discuss the predictability of asylum cases, they do not extensively examine how the implementation of AI tools could impact human adjudicators. Research on algorithmic decision-making support in other legal contexts suggests that AI-assisted decision-making can reinforce or mitigate biases, depending on how it is integrated into judicial processes.[60] The study acknowledges the potential for AI to replicate existing biases in asylum decisions but does not propose concrete strategies for bias mitigation.

My research fills this gap by investigating ways to ensure that predictive models enhance fairness rather than entrench existing inequities. Moreover, my research engages with broader legal and policy implications of using AI tools in refugee adjudication while also evaluating regulatory safeguards that should be implemented to prevent over-reliance on Artificial Intelligence in refugee claims determination. Addressing these gaps will be essential for ensuring that AI technologies enhance, rather than undermine, fairness in refugee status determinations.

[59] Aidid, *supra* note 33.
[60] Barale, *supra* note 35.

2.2 *On the Intersection between Artificial Intelligence and Administrative Law*

Paul Daly's work serves as a foundational text for understanding AI's role in public administration in Canada, offering policymakers, legal scholars, and public administrators essential insights into the benefits and ethical risks associated with government-run AI systems.

In his 2024 paper, *Artificial Intelligence and Administrative Tribunals*,[61] Paul Daly explores the potential integration of artificial intelligence (AI) into the operations of administrative tribunals. Recognizing the historical emphasis of these tribunals on efficiency and effectiveness, Daly posits that they may serve as suitable environments for technological experimentation. He cautions, however, against uncritical adoption of AI, advocating instead for a careful, contextual analysis of its applications. The article outlines various typologies to guide this analysis, emphasizing the need to balance technological innovation with the preservation of fairness and transparency.

Daly identifies several potential uses of AI within administrative tribunals, ranging from enhancing public communication and website accessibility to more complex tasks such as assigning decisions to tribunal members, triaging files for timely resolutions, drafting decisions, and even making decisions. He presents these applications in ascending order of complexity, acknowledging the increasing ethical and legal considerations associated with each. While AI can streamline certain administrative functions, Daly underscores the importance of maintaining human oversight, particularly in decisions that significantly impact individual rights.

[61] Daly, "AI and Administrative Tribunals", *supra* note 25.

Despite the comprehensive nature of Daly's analysis, a few areas might require further exploration. While the author discusses the potential benefits and risks of AI, there is a lack of detailed examination of the legal frameworks necessary to govern its use effectively. This is an area where the current research does something different, as it explores existing legislation and proposes regulatory measures, thereby making my research applicable to policy development.

Furthermore, Daly's paper could benefit from a more in-depth analysis of the potential biases inherent in AI systems and their implications for administrative justice. Addressing how to mitigate such biases and ensure equitable outcomes is crucial for the ethical deployment of AI in this context. One of the major focuses of my research project is the possible guardrails needed to mitigate instances of bias arising from the use of AI tools. Lastly, while Daly acknowledges the importance of public trust, the paper does not extensively discuss strategies for fostering transparency and accountability in AI-assisted decision-making processes.

His paper, "Mapping Artificial Intelligence Use in the Government of Canada",[62] is particularly relevant for the policy aspect of my research as I examine the intersections of AI, administrative law, and public accountability. In that paper, Daly critically reflects on the areas where artificial intelligence can be utilized, noting that while AI has the potential to enhance efficiency and effectiveness, its deployment must be carefully managed to avoid unintended consequences. He emphasizes that AI should complement human judgment rather than supplant it, particularly in areas involving complex decision-making that affects individuals' rights and obligations.

[62] Daly, "Mapping Artificial Intelligence", *supra* note 24 at 74.

The article examines the challenges that AI integration poses, including issues of accountability, transparency, and fairness, particularly within administrative processes where automated decision-making has direct impacts on Canadians. He emphasizes the need for an ethical framework that addresses these challenges, proposing governance mechanisms to guide responsible AI usage within government. However, Daly's work leaves some issues inadequately addressed, as he did not conduct a comprehensive analysis of the ethical, legal, social, and operational challenges in deploying AI in public administration, especially regarding privacy, accountability, and transparency.

This research aligns with my current research in the area of examining the challenges of automated decision-making. However, my research differs from Daly's as it singles out bias as a potential problem that may arise in using artificial intelligence tools to assist in arriving at decisions within the Immigration and Refugee Board of Canada. My thesis goes further by making detailed proposals on how the IRB can adopt AI in its refugee determination processes, along with the safeguards to accompany that initiative.

In their insightful chapter "Administrative Law in the Digital World,"[63] Paul Daly, Jennifer Raso, and Joe Tomlinson explore the profound implications of digital technologies on administrative law. The chapter serves as a pivotal contribution to understanding the intersection of digital technology and administrative law. They argue that the rapid advancement of digital technologies necessitates a re-examination of administrative law's foundations, similar to past paradigm shifts such as the growth of the welfare state and privatization. The authors structure

[63] Daly, Raso &Tomlinson, *supra* note 23.

their analysis around three central domains: “judicial review of administrative action, administrative decision-making, and redress systems.”[64] The chapter highlights how digital technologies, particularly algorithms and AI, challenge traditional judicial review processes. The authors examine the integration of AI and machine learning in administrative decisions, noting both potential benefits, like increased efficiency, and risks, such as biases inherent in algorithmic processes. They stress the importance of maintaining human oversight to ensure decisions adhere to principles of fairness and justice. This perspective contributes to ongoing debates about balancing technological efficiency with ethical considerations.The chapter discusses how digital platforms can transform grievance mechanisms, offering more accessible and efficient redress options. However, they caution against over-reliance on automated systems, which may lack the nuance required to address complex individual grievances. This reflects broader concerns about the adequacy of digital systems in capturing the intricacies of human experiences.

While the chapter provides a comprehensive overview and emphasizes immediate legal implications, it does not delve deeply into the broader societal consequences of digitalizing administrative processes. The current research focuses on AI use in refugee claims adjudication; thus, it differs from this chapter, which analyzes three administrative law systems. More so, the chapter does not explicitly explore automation in the context of refugee claims.

Much has been said about the potential benefits of integrating AI tools in administrative law, especially in adjudicating refugee claims and decision-making. However, some scholars argue otherwise, emphasizing the challenges associated with AI rather than its advantages. Regarding

[64] *Ibid* at 255-256.

the effects of AI tools on administrative decision-making, Jennifer Raso's chapter on the intersection of artificial intelligence (AI) technologies and Canadian administrative law[65] focuses on the challenges AI-driven decision-making tools pose to fairness and justice in public administration. The chapter is part of the book *Artificial Intelligence and the Law in Canada*, which explores the regulatory and legal impacts of AI across various sectors in Canada. The chapter and the book are valuable resources for my research as they highlight the evolving legal landscape surrounding AI technologies in administrative contexts. In her chapter, Raso argues that Canadian administrative law is not yet adequately equipped to manage the effects of AI in decision-making processes, which often undermine traditional concepts of transparency and accountability. She discusses the risks that automated systems bring, especially for marginalized populations who may face negative impacts from opaque algorithms in welfare and other administrative contexts. Raso calls for policy reforms that could incorporate safeguards to maintain procedural fairness while allowing for the efficiencies of AI systems. This work contributes significantly to discussions on AI governance within Canadian administrative law, offering insights that resonate across global jurisdictions dealing with similar issues.

Petra Molnar[66] explores the legal challenges and implications of using artificial intelligence in immigration and refugee decision-making processes. Molnar critically examines how AI systems are being implemented in these areas and the potential human rights issues that arise from their use. Her chapter provides a thorough analysis of the intersection between AI and immigration law, making it a valuable resource for understanding the legal context surrounding AI tools and their use. Molnar offers insights into the potential risks and benefits of AI in these contexts and

[65] Jennifer Raso, "AI and Administrative Law", *supra* note 12.
[66] Petra Molnar, "Automating Migration: Litigating AI in Immigration and Refugee Decision-Making" *supra* note 13.

highlights the need for legal frameworks to address these challenges. My research differs from Molnar's work as she focuses largely on human rights issues arising from using AI in refugee decision-making processes. Some of these issues range from privacy, and data protection concerns arising from the government's use of electronic devices for surveillance and capturing sensitive biometric data and facial features of refugee claimants. Another human rights issue highlighted by Molnar is the fact that using automated systems at the borders can restrict freedom of movement and liberty of refugees while increasing surveillance. In contrast, this present research has singled out the issue of potential bias on the part of AI tools, which may be used in determining refugee claims in Canada. Although bias is also a human rights issue, this thesis differs from Molnar's chapter by analyzing the various types of algorithmic tools that can be adopted by the IRB in the Canadian context, exploring how these tools function, addressing concerns regarding bias, and evaluating Canada's legal framework to mitigate these concerns.

Similarly, Lorne Sossin's exploration of the complex interplay between AI technologies and Canadian administrative law[67] is relevant to my research, as it highlights the challenges and opportunities in integrating AI with traditional legal standards, including how administrative law doctrines can be adapted to new technologies. He examines how AI is increasingly used in administrative decision-making processes across government agencies, affecting areas such as immigration, social benefits, and public health. Sossin addresses concerns related to transparency, accountability, and fairness in AI-driven decisions. He argues for a legal framework that ensures AI's alignment with administrative law principles, such as procedural

[67] Lorne Sossin, "Administrative Law and Artificial Intelligence" In J Presser, J Beatson & G Chan, eds, *Litigating Artificial Intelligence* (Toronto: Emond Publishing, 2021) 191.

fairness and natural justice. This work provides a foundational understanding for lawyers and policymakers on addressing AI's impacts within the administrative justice system.

2.3 *Using Computational legal studies to uncover trends in legal decisions*

In "Claim Types in Canada's Refugee Determination System: An Empirical Snapshot (2013–2021),"[68] Sean Rehaag offers a comprehensive quantitative analysis of refugee claims adjudicated by the IRB. Recognizing the limitations of traditional legal research, which often relies on a skewed subset of published decisions, Rehaag utilizes a dataset comprising approximately 113,000 principal applicant determinations over a nine-year period. This approach provides a more representative understanding of claim outcomes across various categories and types. The study categorizes claims into 13 broad categories and 438 specific claim types,[69] reflecting the IRB's internal classification system. Rehaag reports an overall acceptance rate of 70% during the study period, with annual rates ranging from 63% in 2013 to 73% in 2021.[70] Notably, recognition rates varied significantly across claim types and countries of origin. For instance, claims based on sexual orientation and gender identity exhibited higher recognition rates, while those from certain countries, such as Mexico, had lower success rates.

While the article provides valuable insights, certain areas need further exploration. The study focuses on first-instance decisions, omitting analyses of appeals or judicial reviews, which could offer a more holistic view of the refugee determination process. The author, however, addressed this in his works, the luck of the draw series.[71] Additionally, the study does not delve into the

[68] Rehaag, "Empirical Snapshot", *supra* note 15.
[69] *Ibid* at 6.
[70] *Ibid*, at 9.
[71] Sean Rehaag, "Judicial review of refugee determinations: The luck of the draw" (2012) 38:1 Queen's LJ 1.

potential impact of legal representation, language barriers, or other socio-demographic factors on claim outcomes.

In conclusion, Rehaag's empirical study significantly contributes to the understanding of Canada's refugee determination system by moving beyond traditional legal analyses. By highlighting patterns and disparities in claim outcomes, the research underscores the importance of data-driven approaches in informing policy and ensuring fairness in refugee adjudication. This article provides a foundation for further research into the possibilities of bias on the part of human decision-makers in the refugee claims adjudication process. My research, however, does not cover this aspect because it is currently focused on evaluating the risks that may flow from employing AI tools to process refugee claims.

2.4 *On Whether AI Can Be Trusted*

Trust as simply defined by the Stanford Encyclopedia of Philosophy, "is an attitude towards those (or that) which we hope is trustworthy, where trustworthiness is a property, not an attitude."[72] On this issue of whether AI can be trusted, Adriana Placani, in her article, "Anthropomorphism in AI: Hype and Fallacy,"[73] offers a compelling dual-structured critique of anthropomorphic representations in artificial intelligence. She frames her analysis through two primary lenses: hype and moral fallacy, to unpack the ethical consequences of attributing human traits to AI systems. Anthropomorphism, she asserts, is not merely about form, it includes attributing mental capacities such as emotions, intentions, or consciousness to AI systems,

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[72] Carolyn McLeod, "Trust" In EN Zalta, ed, *The Stanford Encyclopedia of Philosophy* (Stanford: Metaphysics Research Lab, Stanford University, 2023).
[73] Adriana Placani, "Anthropomorphism in AI: hype and fallacy" (2024) 4:3 AI and Ethics 691.

independent of their actual design or capabilities. She argues that the "problem with anthropomorphizing AI is that [this] can lead to viewing such systems as trustworthy, [by projecting] certain [qualities] onto AI, such as goodwill, empathy, or moral agency, and [on this] basis, the wrong conclusion can be drawn."[74]

She concludes that trusting AI solely because it is trustworthy is erroneous, as it overlooks important factors that should be taken into consideration. For example, the owners, developers, or organizations behind the deployment of AI should be evaluated for trustworthiness, as should the governments responsible for regulating AI. When these factors are not considered, viewing "AI as trustworthy [presents] not only a [flawed] moral judgment" but also obscures key considerations that should influence trust assessments.[75]

In their 2024 paper, "Lawyers Should Not Trust AI: A Call for an Open-source Legal Language Model,"[76] Dahan et al. critically examine the integration of artificial intelligence (AI) in legal practice, highlighting significant concerns about the reliability, transparency, and accountability of existing generalized AI models like ChatGPT. The authors argue compellingly for the necessity of developing an open-source, domain-specific AI model tailored explicitly for legal applications, underscoring the risks associated with generalized AI tools, such as inaccuracies, hallucinations, imprecision, lack of transparency, and their limited capacity to handle the complexities inherent in legal reasoning and interpretation.

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[74] *Ibid* at 697.
[75] *Ibid* at 696.
[76] Samuel Dahan et al, "Lawyers Should Not Trust AI: A call for an Open-source Legal Language Model" (2023) Queen's University Legal Research Paper, online: <https://dx.doi.org/10.2139/ssrn.4587092>.

The authors emphasize that generalized AI models, although powerful, frequently fail to meet the high standards of precision and reliability required by legal professionals. Dahan et al. illustrate how inaccuracies produced by such models could result in serious legal misrepresentations, undermining trust in AI-based technologies among legal practitioners. They propose a solution that is to develop a transparent, open-source, legal-specific AI model that addresses key challenges by promoting greater accountability, precision, and reliability through a collaborative, community-driven approach. This aligns with broader movements within legal scholarship advocating transparency and openness as essential components in the ethical integration of AI into professional legal contexts. It is important to note that AI models appear to be improving over the years, and there may be a point at which AI models are just as reliable, if not more so, than their human counterparts. This poses a challenge to Dahan's argument.

A significant strength of Dahan et al.'s work is its clear articulation of why transparency and openness matter in legal AI development. They assert that an open-source approach enables continuous peer scrutiny, iterative improvement, and collaborative error detection, in sharp contrast to the opaque nature of proprietary AI models. This aligns with the wider scholarly push for transparency in AI governance, particularly in high-stakes fields like law, where accountability is paramount.

Nonetheless, some critical gaps remain in the literature as presented by Dahan et al. First, while the authors passionately advocate for open-source models, they do not thoroughly address the pragmatic challenges associated with the development, sustainability, and maintenance of open-

source AI platforms in legal contexts. Issues related to resource allocation, cybersecurity threats, and long-term sustainability are briefly acknowledged but not fully explored, warranting further investigation to assess realistic implementation strategies. Secondly, the article does not sufficiently engage with the implications of transitioning to open-source AI in legal practice, given the sensitive nature of legal data and the varying jurisdictional requirements of the substantive law.[77]

This study is similar to my research in the area of ensuring that critical decisions with lifelong implications for vulnerable populations like refugees are not left to trial and error. This is why my current research delves into examining the possibilities of bias stemming from the use of AI tools to assist in making those critical decisions in refugee claim adjudication. My research differs by exploring algorithmic bias, while this article discusses the need for an open-source, domain-specific AI model for legal reasoning.

2.5 *Is human decision-making the Luck of the Draw*

It has been argued by various authors that human decision-making is equally flawed by biases, as AI-assisted decision-making is flawed with algorithmic bias. This has been phrased to show that the outcomes of many decisions vary based on other external factors, cutting across the personalities and prejudices of decision makers, and can be summarized as "the luck of the draw".[78] In Canada, empirical research on refugee adjudication has uncovered concerning inconsistencies. Sean Rehaag's studies of Canadian refugee decisions famously described the

[77] See page 146 of this thesis for a discussion on the challenges surrounding open-source AI models.
[78] Sean Rehaag, "Judicial review of refugee determinations: The luck of the draw" *supra* note 71.

situation as "the luck of the draw" for claimants.[79] At Canada's Federal Court, which reviews asylum tribunal decisions, Rehaag found that outcomes of judicial review applications often hinge largely on which judge is assigned. He reported that over one-third of Federal Court judges deviated from the average grant rate by more than 50%, and that some judges were more than ten times as likely to grant review as others.[80] For instance, during a five-year period, one Canadian judge granted leave (permission to proceed to full review) in over 50% of cases, while another judge granted leave in less than 5%.[81] Canadian studies also confirm the influence of representation: refugee claimants with counsel in Canada's asylum process (both at the tribunal and on judicial review) have significantly higher success.[82] One difference in Canada is procedural; Canada requires leave to judicially review a refugee case, which itself introduces an additional gatekeeping disparity.

Scholars in other jurisdictions have conducted similar studies and have made similar findings to show disparities in grant rates in judicial decisions in relation to several external factors, such as the gender of the presiding judge, nationality, and others. Ghezelbash et al.,[83] cite Rehaag's work to highlight that Australia has its own experiences of such disparities in judicial decisions, emphasizing that systematic discrepancies in refugee case outcomes are a known phenomenon in multiple common-law jurisdictions. The authors caution that each case is unique and that their statistical analysis cannot prove bias or error in any individual instance. They stop short of

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[79] *Ibid.*
[80] *Ibid,* at 26.
[81] *Ibid.*
[82] Craig Damien Smith, Sean Rehaag, and Trevor C. W. Farrow, "Access to Justice for Refugees: How Legal Aid and Quality of Counsel Impact Fairness and Efficiency in Canada's Asylum System" (2021). Canadian Forum on Civil Justice 4. <https://digitalcommons.osgoode.yorku.ca/cfcj/4>.
[83] Daniel Ghezelbash, Kevyan Dorostkar & Shannon Walsh, "A Data Driven Approach to Evaluating and Improving Judicial Decision-Making: Statistical Analysis of the Judicial Review of Refugee Cases in Australia" (2022) 45:4 Univ New South Wales Law J, 1185. Online: <http://dx.doi.org/10.53637/tcnq8226>.

alleging that specific judges are "getting it wrong"; instead, they raise the possibility that cognitive biases *may* be influencing decisions.[84] This leaves a gap for qualitative research: interviews,[85] surveys, or observational studies of judges could complement the data by uncovering how judges perceive asylum cases and whether factors like burnout, attitudes toward refugees, or implicit biases affect their rulings.

In the United Kingdom, while comprehensive statistical studies are less extensive than in the US or Canada, there is recognition of similar issues. UK asylum adjudication has been described as an "asylum lottery" reflecting anecdotal reports that some immigration judges or tribunals are markedly more likely to allow appeals than others.[86] Former Immigration Judge Hugo Storey, writing in a judicial capacity, noted the importance of consistency in refugee decision-making and reviewed efforts to achieve greater uniformity in the UK system.[87] The UK has implemented measures such as country guidance cases and appellate oversight to curb disparities, but concerns remain.[88] For example, variation in grant rates between different hearing centres or individual judges has been periodically highlighted by NGOs and academics, indicating that who decides an asylum appeal in the UK can significantly affect the outcome, even if precise statistics are not officially published due to data limitations.

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[84] *Ibid.*
[85] Sule Tomkinson's work examines how refugee adjudicators conduct their fact findings through interviews and interrogations; Sule Tomkinson, "Who are you afraid of and why? Inside the black box of refugee tribunals" (2018) Can Public Admin, 61: 184. <https://doi.org/10.1111/capa.12275>.
[86] Emma Marshall, "Reconsidering the Asylum Lottery: Refugee Determination and the Structure of Luck" (2025) Social & Legal Studies, 34 (6), 791. <https://doi.org/10.1177/09646639241312092>.
[87] Hugo Storey, "Consistency in Refugee Decision-Making: A Judicial Perspective" (2013) 32:4 Refug Surv Q 112.
[88] *Ibid.*

The European context provides an interesting contrast: France has gone so far as to legally prohibit the publication of judge-specific asylum grant statistics,[89] after data analyses showed marked differences between judges. This ban is motivated by fears of undermining public confidence in judicial impartiality. The French response underscores a key comparative point: while Australia, the US, Canada, and the UK have engaged with the empirical reality of inconsistent adjudication to varying degrees, some jurisdictions have resisted such transparency. In summary, the findings of Ghezelbash, Dorostkar, and Walsh are broadly consistent with international research; thus, in many asylum systems, outcomes can differ widely from one adjudicator to the next, raising fairness concerns. All these studies converge on the notion that chance plays an outsized role in refugee protection decisions. Therefore, whether one's claim is accepted can depend less on the merits and more on extrinsic factors like the assigned judge's tendencies, the availability of legal counsel, or the procedural stream of the case.

My research is different from the foregoing studies as it focuses on the possible risks associated with using artificial intelligence tools in determining refugee claims and not necessarily diagnosing inconsistencies in decisions or analyzing bias and prejudices applicable to human decision makers in judicial decision making.

2.6 *AI tools in border control as a means of monitoring and controlling immigrants*

[89] Ghezelbash, Dorostkar & Walsh, "A Data Driven Approach to Evaluating and Improving Judicial Decision-Making", *supra* note 83.

Aizeki, Bingham, and Narváez[90] examine the expansion of digital migration control in the Americas, arguing that contemporary border enforcement is no longer confined to 'territorial boundaries' but operates as an 'everywhere border.' The authors detail how biometric surveillance, data collection, and predictive analytics are increasingly used by states to track and control migrants, creating a vast and opaque digital infrastructure that extends beyond traditional immigration checkpoints. This study builds on critical border studies by demonstrating how digital technologies reinforce exclusionary migration policies while enabling state and corporate actors to collaborate in ways that erode migrants' rights. The authors provide a compelling analysis of the transnational nature of digital border control, illustrating how these technologies are deployed not only at national borders but also through interior enforcement, international cooperation, and public-private partnerships. Their work aligns with scholarship on border externalization, particularly in Europe, where researchers have highlighted similar trends in digital surveillance.[91]

However, Aizeki et al focus specifically on the Americas, filling a crucial gap in regional scholarship on digital migration governance. While the authors emphasize the oppressive nature of digital migration control, there is limited discussion on how migrants resist or navigate these technologies. More so, the article does not assess the long-term implications of digital migration control on asylum seekers and undocumented populations.

[90] Mizue Aizeki, Laura Bingham & Santiago Narváez, "The Everywhere Border: Digital Migration Control Infrastructure in the Americas" (2023) Transnational Institute, online: <www.tni.org /en/article/the-everywhere-border>.
[91] Petra Molnar, "Technology on the margins: AI and global migration management from a human rights perspective" (2019) 8:2 Camb Int Law J 305.

This study is relevant to my research as it provides a starting point to discuss the socio-economic ills as well as injustices that migrants and refugees face under the asylum system. My research differs from Aizeki's work in analyzing the steps that refugee claims go through and identifying any potential legal injustices that refugee claimants may be subjected to under the system, especially with regard to automated refugee determination. My research highlights not only possible issues of bias in automated refugee determination processes but also explores the various means available to curb such risks and ensure that refugee claimants are protected accordingly.

Similarly, Molnar in her article, Digital border technologies, techno-racism and logics of exclusion[92] highlights the various issues surrounding the use of technologies in refugee processes and camps. Such issues range from privacy concerns arising from sharing personal information without people's consent to the issues of racism, bias, and discrimination, which often arise when these technologies are used to analyze women or people with darker skin tones. Measures to improve access to justice are often sacrificed for developing technologies as the state is more interested in building digital tools to surveil and secure their borders than investing in making justice more accessible to migrants. More methods are being devised to keep people on the move (refugees) out and to stop them from supposedly exploiting the system. These end up perpetuating marginalization against these already marginalized communities rather than enhancing their rights and rooting out racism and discriminatory practices at the border. Marginalized communities are often subjected to various technologies like surveillance, AI lie detectors, among others. Molnar's piece on digital border technologies is a rich academic

[92] Petra Molnar, "Digital border technologies, techno-racism and logics of exclusion" (2023) 61:5 Int Migr 307.

resource on the topic; however, my research differs from hers because it goes further to examine whether refugee claimants are further marginalized if the tribunal employs digital technologies in processing various aspects of their applications.

In "AI in Border Control and Migration: Techno-racism and Exclusion at Digital Borders," Petra Molnar[93] critically examines the deployment of artificial intelligence (AI) technologies in migration management, highlighting the emergence of 'techno-racism' which is the systemic discrimination facilitated by digital tools at international borders.[94] Molnar argues that these AI-driven systems often perpetuate existing racial biases, leading to the exclusion and marginalization of racialized migrants. She underscores that borders have historically been sites of racial violence, and the integration of AI technologies exacerbates these injustices by embedding discriminatory practices within automated processes.

The chapter provides a thorough analysis of various digital border technologies, including biometric data collection, facial recognition, and automated risk assessments. Molnar illustrates how these tools, while seemingly enhancing security and efficiency, often operate without sufficient oversight or accountability. This lack of transparency raises significant concerns about privacy rights and the potential for misuse, particularly when such technologies are employed by private companies with minimal regulatory constraints. The author emphasizes that the privatization of migration management technologies further complicates efforts to uphold ethical standards and human rights protections.

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[93] Petra Molnar, "AI in border control and migration: techno-racism and exclusion at digital borders" in Regine Paul, Emma Carmel & Jennifer Cobbe, eds, *Handbook on Public Policy and Artificial Intelligence* (Edward Elgar, 2024) 307.
[94] *Ibid*.

Despite the chapter's thorough examination of the intersection between AI and border control, certain gaps exist in the literature. While Molnar critiques existing policies, the chapter does not fully explore the potential regulatory frameworks and policy recommendations aimed at mitigating the adverse effects of AI in border control. More so, the chapter focuses on the negative impacts of AI technologies, leaving limited room for discussing potential benefits or instances where technology has been used to support migrants. Exploring how AI can be harnessed ethically to facilitate migration processes, improve access to information, or enhance the safety of migrants could provide a more balanced perspective.

2.8 *Ensuring Fairness in Algorithmic Systems*

Joshua Kroll et al, in their seminal work, "Accountable Algorithms," explore the increasing reliance on automated decision-making systems and the imperative for accountability within these frameworks.[95] The authors critically examine the challenges posed by algorithmic opacity and propose methodologies to ensure that these systems adhere to principles of fairness and transparency. Challenging the prevalent notion that transparency, achieved through the disclosure of source code, is a panacea for algorithmic accountability, Kroll et al argue that mere access to code is insufficient. They contend that understanding an algorithm's source code does not necessarily elucidate its decision-making process, especially given the intricate nature of many algorithms. Instead, the authors advocate for the development of technological tools capable of verifying that automated decisions comply with established legal and ethical

[95] Joshua Kroll et al, "Accountable Algorithms" (2017) 165:3 University of Pennsylvania Law Review.

standards. This approach emphasizes the need for mechanisms that can assess the fairness of outcomes without solely relying on code transparency.

A notable contribution of the article is its exploration of how algorithmic decision-making complicates existing legal doctrines, particularly the doctrine ofdisparate impact.The authors largely discuss anti-discrimination as it applies to technology. This interdisciplinary perspective bridges the gap between technological innovation and legal accountability, highlighting the necessity for collaborative efforts to address these challenges.

The article's comprehensive analysis, however, reveals certain gaps that need attention. The article primarily addresses the challenges and solutions pertinent to the technological and legal landscapes as of 2017. Given the rapid evolution of artificial intelligence and machine learning technologies, ongoing research is necessary to assess the applicability of the authors' recommendations in the current context. This includes examining how emerging technologies, such as deep learning and neural networks, may introduce new complexities to algorithmic accountability. Furthermore, while the authors acknowledge the potential for algorithms to perpetuate bias, there is a need for more in depth analysis of the societal and ethical implications of algorithmic decision-making. Exploring how these systems affect marginalized communities and exacerbate existing inequalities would provide a more comprehensive understanding of the challenges at hand.

Teresa Scassa explores the implications of the Supreme Court of Canada's decision in *Ewert v. Canada* for the use of algorithmic tools in legal and administrative contexts.[96] The case centered on Jeffrey Ewert, an Indigenous inmate who challenged the Correctional Service of Canada's (CSC) reliance on risk assessment tools developed primarily on non-Indigenous populations. The Court ruled that CSC failed to demonstrate the validity of these tools for Indigenous offenders, thereby violating its obligations under the *Corrections and Conditional Release Act*.
Scassa draws parallels between this decision and the broader concerns surrounding algorithmic decision-making, particularly the risk of systemic bias when tools are applied without adequate validation across diverse populations. She emphasizes that the Court's insistence on empirical validation sets a precedent for scrutinizing the fairness and reliability of algorithmic systems, especially when they impact marginalized groups. This perspective aligns with ongoing discussions about the need for transparency and accountability in AI applications within the justice system.[97]

However, Scassa's analysis primarily focuses on the legal ramifications of the *Ewert* decision, leaving certain areas underexplored. For instance, while she highlights the importance of validation, there is limited discussion on the practical challenges of implementing such measures in rapidly evolving technological landscapes. Additionally, the commentary does not delve deeply into the potential for community involvement in developing and accessing these tools, which could be crucial for ensuring cultural relevance and fairness.

[96] Teresa Scassa, "Supreme Court of Canada Decision has Relevance for Addressing Bias in Algorithmic Decision-Making" (2018) online: <https://www.teresascassa.ca/index.php?option=com_k2&view=item&id=278>.
[97] *Ibid.*

This commentary is relevant to my research as it underscores the importance of scrutinizing algorithmic decisions, which is one of the areas that this current research seeks to explore, in the context of refugee claims, assuming the IRB sanctions the use of artificial intelligence tools in its refugee determination process.

Byrne et al.[98] explore the intersection of data-driven technologies and international refugee law, comprehensively analyzing how digital tools are reshaping refugee protection mechanisms. Their work is a significant contribution to the growing body of scholarship examining the implications of artificial intelligence (AI), big data, and digital identity systems in refugee governance. They raise concerns about the opacity of algorithmic decision-making in refugee status determination (RSD) procedures, warning that automated systems could undermine procedural fairness if they lack transparency and explainability. By investigating both the opportunities and risks associated with these technologies, Byrne et al. highlight how data-driven systems can enhance efficiency in asylum processes while also exacerbating concerns related to privacy, bias, and accountability. This finding aligns with the arguments of scholars in recent literature who emphasize the potential for technology to improve efficiency in humanitarian operations. Byrne et al. provide a robust legal analysis of how emerging technologies intersect with fundamental principles of international refugee law, particularly the right to privacy, non-refoulement, and due process. By acknowledging the risks associated with these technologies, particularly in terms of data security, informed consent, and the potential for discrimination, this article provides a nuanced analysis that moves beyond techno-optimism or outright skepticism.

[98] William Hamilton Byrne et al, "Data-driven futures of international refugee law" (2024) 37:4 J Refug Stud 915.

The authors emphasize the phenomenon of "datafication," referring to the increasing reliance on digital data in migration governance. Their discussion of biometric registration, digital identity verification, and AI-assisted Refugee Status Determination (RSD) is well supported by existing literature. A common concern in recent literature is the role of biometric technology in exacerbating vulnerabilities among displaced populations. Byrne et al. expand on this by illustrating how data driven decision-making can both empower and marginalize refugees, depending on the implementation of these technologies. A major strength of their analysis is their discussion of legal accountability in AI-assisted decision-making. The authors call for stronger legal safeguards to ensure that AI-driven refugee governance complies with international human rights norms. Their analysis is particularly relevant given the increasing reliance on automated decision-making and biometric registration in RSD and humanitarian assistance.

Despite the strengths of Byrne et al's analysis, there are some gaps in their work. The article does not sufficiently address how refugees perceive and interact with these technologies. Many scholars have argued that refugee voices must be included in discussions of digital rights and governance. I agree with this because in order to ensure fairness and effective access to justice, the recipients of policies emanating from any such discussions ought to participate in such deliberations, and their experiences and realities ought to be taken into consideration. Additionally, Byrne et al. do not fully explore the impact of private sector involvement in data-driven refugee governance. Technology companies play a significant role in developing and deploying AI tools for migration management, yet their influence on policy decisions is often

opaque. Concerns have been raised about the privatization of digital governance and the risks of corporate control over sensitive refugee data.

Though this article emphasizes concerns relating to bias and privacy in digital technologies and refugee governance, my current research is different, as it focuses on using AI tools in triaging claims, reviewing claims, and assisting decision makers in arriving at their determination. Thus, my research evaluates the risk of bias with regard to refugee claims adjudication and not necessarily the risks of employing technological tools on refugees like biometric registration and digital identity verification.

2.9 *Some Learning points and why this project matters*

A lot has been gathered from the comprehensive review of literature in this chapter. Many authors are in alignment with the argument that AI can do more good than harm if employed particularly in administrative tribunals. The review highlights AI's role in ensuring consistency in decision-making, efficiency, and effectiveness of the system. Notwithstanding the great potential of artificial intelligence, some critics believe otherwise. Bias is a common theme among these critics who contend that AI is fraught with bias in many ways and can endanger the rights of vulnerable populations, such as refugee claimants, and suppress access to justice. One interesting thing, however, is that even among the critics, a good number of publications add some qualification to show that if employed transparently and within specific regulations and directives, AI will be worth integrating into the methods and processes of administering justice.

The Immigration and Refugee Board of Canada currently triages and streams refugee claims based on certain factors like country, claim type etc. The review of literature has shown that the process is not entirely free from some sort of bias as well. On this premise, in Chapters Three and Four, I will argue that certain types of bias arise therefrom, whether the triaging is done by humans or by automated systems. The risk of bias notwithstanding, the review has shown that AI offers significant benefits that can be harnessed even in refugee claims determination. Therefore, this thesis argues that the IRB has come to that stage where it will benefit from AI's many potential uses, to enhance its procedures and enhance the board's efficiency in handling refugee claims.

In addition to the literature on the relevant guardrails to be put in place when adopting artificial intelligence in processing sensitive applications like refugee claims, I will in Chapter Five argue that the existing legislative guidelines, policies, and other legislative efforts of the government of Canada towards regulating artificial intelligence use in government go a long way to ameliorating the risks of bias especially in administrative decision making.

An overall gap in the current literature is that substantial research has not been conducted on the possibility of the Immigration and Refugee Board of Canada adopting AI in processing certain claims, specifically, less complex claims. This gap is the void that this research has come to fill. Drawing on the analysis of various algorithms and machine learning models in Chapter 3 of this thesis, I will provide practical recommendations for suitable machine learning models and specific algorithm types that the IRB can adopt in this regard. These recommendations will be argued in various sections of Chapters Three, Four, and Six of this thesis.

This thesis is highly relevant because it not only examines the legal framework surrounding artificial intelligence and examines the various areas where AI can be integrated in the IRB's processes to enhance efficiency, but also it sees through the lens of the realities of the digital world in which we live.

CHAPTER THREE

ALGORITHMS AND ARTIFICIAL INTELLIGENCE

3.1 Overview of Algorithms and Artificial Intelligence

Before delving further into the argument that IRB can and ought to integrate AI in triaging files, streaming claims, assigning files to Members, and determining less complex positive claims, it is imperative to analyze Artificial Intelligence, algorithms, and how they function. Thus, this section of the thesis will examine the nature and types of algorithms, provide a detailed analysis of algorithms and artificial intelligence, and discuss how these phenomena work in practice.

In this chapter, the methodology for identifying and selecting sources was intentionally multidimensional, strategically leveraging the doctrinal legal research tradition while incorporating interdisciplinary insights from computational law, computer science, critical legal scholarship, and socio-legal studies. Sources rooted in empirical computational research provided methodological clarity regarding the technical functionality, types, and design of algorithms. Works from the fields of computer science, particularly algorithmic theory, artificial intelligence, and machine learning, are foundational in this chapter. Socio-legal research offered qualitative and critical perspectives on algorithmic biases, transparency, accountability, and social implications, guiding the selection of sources that critically evaluated the societal and ethical implications of algorithmic technologies. As noted by Amani, equality is not merely an ethical standard but a formative legal norm. Therefore, re-enacting equality into the coded language of algorithms for automated decision-making may be necessary, and the contention that AI tools should be designed for equality by default is valid.[99]

[99] Amani, "AI and Equality by Design" *supra* note 45.

Drawing on similar approaches from the work of authors like Amy Salyzyn,[100] this chapter will scan the field of AI tools, analyzing the various types of algorithms, artificial intelligence, and machine learning types.

This chapter will describe various algorithms and apply them to some IRB processes. The chapter will analyze machine learning (ML) and how it works and gradually introduces the reader to the potential risks of adopting ML, including bias. A brief analysis will be done in that section to explain how bias becomes a potential when working with some types of algorithms and ML processes more than others.

The rise of digital technology and machine learning has positioned algorithms and artificial intelligence (AI) as fundamental elements in contemporary decision-making processes, especially in the legal field. Understanding algorithms and artificial intelligence in terms of how they function, their types, and implications is crucial for evaluating their potential impact on refugee claims adjudication and, consequently, access to justice.

Artificial intelligence and algorithms are at the center of this research. It is important to note that there are various types of algorithms, each functioning differently. I do not recommend that the IRB employ all kinds of algorithms in its processes. This is why it is crucial to analyze the various types of algorithms so that it becomes easy to understand the reasons behind the type recommended for the board. Thus, both concepts will be examined in this chapter before proceeding to how they may be applied in refugee claims adjudication.

[100] Salyzyn, "AI and Legal Ethics", *supra* note 11; Amani, "AI and Equality by Design", *supra* note 45.

The first task is to define algorithms. Simply put, an algorithm can be defined as "tool for solving a well-specified computational problem."[101] Each step of an algorithm must be clearly defined, executable, and yield consistent results upon repeated executions. Algorithms are the backbone of computing, forming a set of rules to accomplish specific tasks that range from simple calculations to complex decision-making scenarios.[102]

Many authors have defined algorithms in various ways. The meaning assigned to the term "algorithm" in computer science is generally different from the meaning in relation to other fields. Donald Knuth, in defining algorithms, distinguished between algorithms and mathematical formulae. According to Knuth, algorithms "must always terminate after a finite number of steps, and each step must be precisely defined, the actions to be carried out must be rigorously and unambiguously specified for each case."[103] The definition also specifies that input is "quantities which are given to it initially before the algorithm begins, with output being quantities which have a specified relation to the inputs, and that all of the operations to be performed in the algorithm must be sufficiently basic that they can in principle be done exactly and in a finite length of time by someone using pencil and paper."[104]

Knuth's definition is similar to that of Cormen, Leiserson, Rivest, and Stein in their renowned textbook, "Introduction to Algorithms".[105] Cormen et. al defined an algorithm as "any well-

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[101] Thomas H Cormen, Charles E Leiserson, Ronald L Rivest & Clifford Stein, *Introduction to Algorithms*, 3rd ed (MIT Press, 2009) at 5.
[102] Unlocking the Mystery of Algorithms: A Comprehensive Guide to Understanding Their Characteristics and Functions, <https://locall.host/what-is-algorithm-explain-its-characteristics/>.
[103] Donald Ervin Knuth, *The art of computer programming: fundamental algorithms*, vol 1, 3rd ed (Pearson Education, 1968) at 5-6.
[104] *Ibid.*
[105] Cormen et al, *supra*, note 101.

defined computational procedure that takes some value, or set of values, as input and produces some value, or set of values as output".[106] Friedman and Nissenbaum[107] defined 'algorithm' as an automated system which operates as a computer system and is used in social or human applications.[108]

There is an interesting definition by Christian Sandvig, a communications scholar who defines algorithm in a radically different yet encompassing way thus "algorithm refers to the overall process by which a human actor uses a computer to" accomplish a task and this includes deciding on what the computer should do, making choices to implement those decisions, and even choosing how those choices are represented and sold to the public.[109] Sandvig's definition goes beyond values or sets of values and data fed into a computer to produce another set of values known as output. This definition points to even the choices, steps, and actions taken by humans and decision makers as inputs, which all produce outputs at the end.

Diakopoulos,[110] who is also a communications scholar, defines algorithms as "a series of steps undertaken in order to solve a particular problem or accomplish a defined outcome".[111] This scholar quickly adds that "algorithms can arguably make mistakes and operate with biases",[112]

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[106] *Ibid*, at 5.
[107] Batya Friedman & Helen Nissenbaum, "Bias in computer systems" (1996) 14:3 ACM Transactions on Information Systems (TOIS) 330.
[108] *Ibid.*
[109] Christian Sandvig, "Seeing the sort: The aesthetic and industrial defense of the Algorithm" (2015) Journal of the New Media Caucus <http://median.newmediacaucus.org/art-infrastructures-information/ Seeing-the-sort-the-aesthetic-and-industrial-defense-of-the-algorithm/>.
[110] Nicholas Diakopoulos, "Algorithmic accountability: Journalistic investigation of computational power structures" (2015) 3:3 Digital Journalism 398.
[111] *Ibid* at 400.
[112] Diakopoulos, "Algorithmic accountability" *supra* note 110 at 398.

which is to say that an error may occur in those steps, or the steps could be marked with some prejudices, thereby resulting in an incorrect output or a biased output.

The definitions of algorithm by Friedman, Sandvig, and Diakopoulos can be labelled as “broad”. Conversely, Cormen et al’s definition can be seen as the “narrow” definition of an algorithm. This thesis will adopt the narrow definition provided by Cormen et al, as stated above, as it is a more principled, meaningful, and therefore practical definition. Though in line with Sandvig’s definition above, one can argue that the IRB employs algorithms in its streaming of claims because there are several factors considered in determining which stream each particular claim goes to. These factors may sometimes present some potential bias, which can be addressed by artificial intelligence. Due to the increasing influence of algorithms on various processes and systems, there is growing scrutiny for transparency, fairness, and accountability across nearly every sector, including law, finance, healthcare, and immigration. This is critically analyzed in the 5th chapter of this project.

3.2 Types of Algorithms

To effectively recommend artificial intelligence tools for IRB processes, it is important at this stage to highlight the different types of algorithms. Understanding the details and operation of each algorithm type will make it easier to identify which one best suits the IRB processes that I argue should be automated. Several categories of algorithms exist, each serving distinct computational purposes. Their diversity reflects the complexity and variety of tasks they are designed to handle. The types are as follows:

Brute Force Algorithms: These solve problems through exhaustive search techniques, trying every possible solution until the correct one is identified. As discussed by Knuth,[113] brute force methods are valuable for their simplicity and reliability but are computationally intensive and inefficient for large datasets. Brute force techniques can be used in exhaustive legal research databases, scanning every case to find exact keyword matches without semantic understanding.

Divide and Conquer Algorithms: These algorithms break down problems into smaller, manageable sub problems, solve each independently, and combine their solutions to form the overall result. These algorithms "divide the problem into a number of subproblems that are smaller instances of the same problem; conquer the subproblems by solving them recursively; combine the solutions to the subproblems into the solution for the original problem.".[114] According to Goodrich and Tamassia,[115] divide-and-conquer strategies are particularly effective in sorting algorithms like merge sort and quicksort and are fundamental in optimizing recursion-based processes.

The merge sort algorithm is similar to the divide-and-conquer paradigm.[116] It operates as follows: "Divide: Divide the n-element sequence to be sorted into two subsequences of n/2 elements each. Conquer: Sort the two subsequences recursively using merge sort. Combine: Merge the two sorted subsequences to produce the sorted answer."[117]

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[113] Knuth, *supra*, note 103.
[114] Cormen et al, *supra* note 101 at 65.
[115] MT Goodrich & R Tamassia, *Algorithm Design and Applications* (Wiley, 2014).
[116] Cormen et al, *supra* note 101.
[117] *Ibid* at 30.

Whereas "quicksort, like merge sort, applies the divide-and-conquer" [approach.][118] Quicksort is recognized as a good choice for sorting because of its remarkable efficiency level.[119]
Recursion-based processes refer to solving large problems by repeatedly breaking them down into smaller problems; the algorithm continues to call itself "until the subproblems become small enough that [the function is no longer executed.] At that stage, it can be said "that the recursion "bottoms out" and that [the problem has] gotten down to the base case."[120]
Divide and conquer methods are used in e-discovery to partition vast legal documents into smaller batches for parallel review and faster retrieval of relevant information.

For the IRB, the units responsible for triaging files and streaming claims can benefit by adopting divide-and-conquer algorithms. These algorithms will assist in sorting claims in order to optimize these processes. The claim referral package, including the basis of claim form, can be partitioned using these algorithms to retrieve relevant information for streaming claims to the appropriate category.

Before I continue with the remaining types of algorithms, it is important to distinguish between triaging files and streaming claims. Triaging files is different from streaming claims, though some people use both terms interchangeably. Essentially, triaging involves a quick scan and sorting of refugee files to verify the completeness of required documents and compliance with other requirements, such as ensuring the Basis of Claim (BOC) Form is completed correctly and signed. At the streaming stage, files are sorted based on complexity and other factors into the less

[118] Cormen et al, *supra* note 101 at 170.
[119] Goodrich & Tamassia *supra* note 115.
[120] Cormen et al, *supra* note 101 at 65.

complex claims category, the complex claims category, or the regular claims category. These will be discussed in more detail in Chapter 4 of the thesis.

Greedy Algorithms: Greedy algorithms select the best available option at each stage, aiming for those individual choices to ultimately produce the best overall solution.[121] This type of algorithm focuses on making the most advantageous choice at the moment without considering the long-term consequences or the overall impact on the final solution. Cormen et al.[122] highlight that while greedy algorithms can be faster and easier to implement, they may not always yield globally optimal solutions unless the problem has the 'greedy-choice property'.[123] The Greedy choice property simply means that the overall problem is inherently solvable by first making a locally optimal choice(i.e., the choice that seems best at the moment).[124] Greedy algorithms are often utilized in legal compliance systems to select the most efficient regulatory pathways or to prioritize high-risk compliance issues over others.

Dynamic Programming Algorithms: Dynamic programming is an algorithmic technique that simplifies a problem into smaller, overlapping components, computing each component once, and reuses the results as needed. Bellman first formalized this approach, which is crucial for problems such as shortest path computations and resource optimization.[125] Dynamic programming supports sentencing prediction models where historical cases with similar facts are stored and referenced to predict likely outcomes for new cases.

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[121] Cormen et al, *supra* note 101 at 414.
[122] *Ibid*.
[123] *Ibid*.
[124] Cormen et al, *supra* note 101 at 424.
[125] Richard Bellman, *Dynamic Programming* (Princeton University Press, 1957).

Heuristic Algorithms: Heuristic algorithms provide practical, efficient solutions where exact methods are computationally prohibitive. Heuristics are vital in artificial intelligence for solving problems like game playing (e.g., chess) and navigation, where approximations must be made with incomplete data.[126] Heuristic-based tools are applied in predictive policing and risk assessment models to estimate the likelihood of reoffending or litigation risks.

Randomized Algorithms: These algorithms make random choices during execution to achieve a better performance. Motwani and Raghavan[127] explain that randomized algorithms can often simplify complex problems and achieve better average-case performance, especially in optimization and probabilistic analysis. "Probabilistic analysis is the use of probability in the analysis of problems."[128] Randomized methods are used in anonymizing legal datasets to protect individual privacy during the training of AI legal models.

Evolutionary Algorithms: Inspired by biological evolution, these algorithms use mechanisms like selection, mutation, and crossover to evolve solutions over time. Evolutionary algorithms are beneficial in optimization problems where the search space is vast and poorly understood.[129] An example of an evolutionary algorithm is differential evolution (DE), which uses a population of solutions and leverages differences between them to guide the search for better solutions.[130]

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[126] Pearl Judea, *Heuristics: Intelligent Search Strategies for Computer Problem Solving* (Addison-Wesley, 1984).
[127] Rajeev Motwani & Prabhakar Raghavan, *Randomized Algorithms* (Cambridge University Press, 1995).
[128] Cormen et al, *supra* note 101 at 115.
[129] T Bäck, DB Fogel, & Z Michalewicz, *Handbook of Evolutionary Computation* (CRC Press, 1997).
[130] Hassan Heydari Mofrad & Jafar Yazdi, "An enhanced multi-objective evolutionary algorithm for the rehabilitation of urban drainage systems" (2022) 54:2 Eng Optim 349.

Evolutionary algorithms have been applied in optimizing court scheduling, where multiple competing factors, e.g., judges' availability, caseloads, and case priorities, must be balanced.

From the types of algorithms explored above, it is argued that the IRB can benefit from using evolutionary algorithms, as these can be integrated into the IRB's Scheduling unit to assist with assigning refugee claims to Members.

Probability and randomness are often used as tools in designing the behaviour of a part of the algorithm of a system. As Cormen et al opine, an algorithm is randomized "if its behavior is determined not only by its input but also by values produced by a random-number generator."[131] Thus, instead of assuming that the input is randomized, the algorithm gains control of the process and enforces a random order, ensuring greater control over the order of the input.[132] The randomized algorithms will be incorporated in the area of assigning files to members. The IRB had previously assigned particular claims to Members based on their experience in handling such claim types or countries; however, the recent trend is to de-emphasize experience with specific countries or claim types when assigning files to Members. For less complex claims, this trend may be less common because such claims often arise in certain countries and are based on specific grounds. Overall, randomized algorithms is an excellent tool to ensure that refugee decision makers do not, over time, become used to only particular types of claims, as this may lead to confirmation bias.[133] Confirmation bias will be analyzed in more detail in Chapter 4 of this thesis.

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[131] Cormen et al, *supra* note 101 at 117.
[132] *Ibid.*
[133] Daly, "AI and Administrative Tribunals", *supra* note 25.

3.3 Understanding how AI works

As defined by Russell and Norvig, "artificial intelligence refers to systems or machines that [simulate] human intelligence to perform tasks and iteratively improve based on collected information."[134] AI integrates algorithms with substantial computing power and data to perform tasks that typically require human intelligence, including reasoning, problem-solving, and learning.[135] AI systems primarily operate through machine learning, which enables algorithms to learn from data and refine their operations over time.

It is important to familiarize the reader with the operation and workings of artificial intelligence tools. This foundational understanding is essential to smoothly usher in the next chapter in this thesis, which will analyze the refugee claims processes of the Immigration and Refugee Board while highlighting those aspects that I argue ought to be automated.

3.3.1 Machine Learning Algorithms

The term "Machine Learning" was coined by Arthur Samuel, one of the foremost researchers in the fields of artificial intelligence and computer games.[136] He described Machine learning as a "field of research that enables computers to learn without being explicitly programmed."[137] Machine Learning (ML) refers to the process of "automating and refining the learning process of computers" such that they can continue functioning from their experiences without requiring

[134] Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach,* 4th ed (Pearson, 2021) 1.
[135] *Ibid.*
[136] Arthur L Samuel, "Some Studies in Machine Learning Using the Game of Checkers" (1959) 3:3 IBM Journal of Research and Development 210. <https://doi.org/10.1147/rd.33.0210>.
[137] *Ibid.*

continued programming by humans.[138] The process involves "providing high quality data, which is used to train machines by creating machine learning models based on the data [provided]."[139] These "computer algorithms improve themselves over time as a result of experience and data."[140] They can learn trends and patterns from data to make predictions or optimizations. ML is often taken as a component of artificial intelligence.[141]

There are several tasks that can be completed using machine learning algorithms, for example filtering emails including email spam detection, image recognition, speech recognition, lead generation, data analytics, and computer vision in detecting patterns in scanning, etc.[142] "The fundamental benefit of employing machine learning is that once an algorithm learns what to do with data, it can complete tasks on its own. Machine learning is also known as predictive analytics when it is used to solve business challenges."[143]

3.3.2 Types of Machine Learning

There are different types of learning, namely supervised learning, unsupervised learning, semi-supervised learning, and reinforcement learning.

Supervised Learning:

[138] R Praba, G Darshan, KT Roshanraj & Prakash B Surya, "Study on Machine Learning Algorithms" (2001) 7:4 Int. J. Sci. Res. Comput. Sci. Eng. Inf. Technol 67. Doi: https://doi.org/10.32628/CSEIT2173105.
[139] *Ibid* at 67.
[140] *Ibid.*
[141] *Ibid.*
[142] IBM, "10 Everyday machine learning use cases" 16 October 2023. <https://www.ibm.com/think/topics/machine-learning-use-cases>.
[143] Praba et. al., *supra* note 138 at 119.

Supervised Learning Algorithms are trained using labeled datasets where the correct output is known. "Supervised learning techniques develop a function that may be used to predict the output associated with fresh inputs by iteratively optimizing an objective function."[144] Some examples include active learning, classification, and regression. Active learning involves "a learning algorithm [that] interactively [queries] a human user or other information [sources] to label new data points with the desired outputs."[145] Regression analyzes the "relationship between a dependent variable and one or more independent variables" by assessing how changes in "the independent variables" correspond "to changes in the dependent variable".[146] In simple terms, regression analysis identifies which variables have an impact, which factors are the most significant, and how these factors interact with one another.[147] Regression methods are used for large range of data, and they are commonly used for predictive analytics.[148]

Unsupervised Learning

Unsupervised Learning utilizes unlabeled data to identify patterns and structures. "Unsupervised learning algorithms discover commonalities in the data and react depending on the existence or lack of such commonalities in each new piece of data, rather than responding to feedback."[149] They are helpful in clustering, anomaly detection, and exploratory data analysis. Clustering is a

[144] Praba et al., *supra* note 138 at 68.
[145] Neil Rubens, Mehdi Elahi, Masashi Sugiyama & Dain Kaplan, "Active Learning in Recommender Systems" in Ricci, Francesco; Rokach, Lior; Shapira, Bracha, eds, Recommender Systems Handbook, 2nd ed (Springer, 2016). doi:10.1007/978-1-4899-7637-6. hdl:11311/1006123.
[146] Amy Gallo, "A Refresher on Regression Analysis" November 4, 2015 Harvard Business Review. <hbr.org/2015/11/a-refresher-on-regression-analysis>.
[147] *Ibid.*
[148] *Ibid.*
[149] Praba et. al., *supra* note 138 at 69.

machine learning process of identifying "notable similarities in the data," and anomaly detection is a "functionality that identifies outliers in a dataset."[150]

Semi Supervised Learning:

Praba et al defines semi-supervised learning as "a combination of labeled data and unlabeled data."[151] According to the authors, "many machine-learning researchers have found that unlabeled data, when combined with a modest amount of labelled data, can significantly enhance learning accuracy."[152] This is because with unlabeled data, the ML process is free to identify any features in the data as relevant, which is helpful, as it may reveal something new in the data. Thus, labeled data serves as the starting point, enabling the model to quickly learn initial patterns, while the unlabeled data then refines and enhances these initial patterns, leading to more accurate predictions overall.

Reinforcement learning:

Reinforcement Learning Algorithms learn optimal actions through experimental exchanges within an environment, with a prize or sanction given to guide performance improvements.[153] An example of reinforcement learning is autonomous driving cars that operate in such unique environment where traffic routes change often.[154] Over time, as the autonomous vehicle navigates through changes in traffic "multiple times, it learns from the outcomes, and based on

[150] Practical Law Notes and Securities, "AI and Machine Learning: Overview." (Thomson Reuters Canada Limited, 2024) at 8.
[151] Praba et al, *supra* note 138 at 69.
[152] *Ibid.*
[153] RS Sutton & AG Barto, *Reinforcement Learning: An Introduction,* 2nd ed (MIT Press, 2018).
[154] Turing, "Reinforcement Learning: what it is, Algorithms, types and Examples" March 22, 2023. <https://www.turing.com/kb/reinforcement-learning-algorithms-types-examples>.

this learning experience, it [comes up with] a strategy to [navigate traffic] with an aim to get optimal reward points."[155]

Interpretable vs. Explainable Machine Learning

Apart from the foregoing types of machine learning, machine learning can also be categorized based on whether the processes can be easily interpreted, explainable and understood by humans. Interpretable machine learning refers to models whose internal logic can be directly understood by humans without additional tools or explanations.[156] The model itself is transparent, allowing a person to trace how inputs are transformed into outputs.[157] As explained by Finale Doshi-Velez and Been Kim, interpretability involves the degree to which "a human can understand the cause of a decision" produced by a model.[158] In interpretable models, the decision-making process is visible and comprehensible by design. Examples of inherently interpretable models include "linear regression, logistic regression, decision trees, and rule-based models."[159] These models allow an inspection into the parameters, rules, or structures to determine how predictions are made. Based on these properties, interpretable models are often favored in high-stakes decision contexts, such as healthcare, finance, and law, where decision makers must justify outcomes.[160]

On the other hand, explainable machine learning refers to techniques that generate explanations for models that are not inherently interpretable. Such models are complex systems, such as deep

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[155] *Ibid.*
[156] Finale Doshi-Velez & Been Kim, "Towards A Rigorous Science of Interpretable Machine Learning" (2017), online: <https://arxiv.org/abs/1702.08608>.
[157] Zachary C Lipton, "The Mythos of Model Interpretability" (2016), online: <https://arxiv.org/abs/1606.03490>.
[158] *Ibid,* at 2.
[159] *Ibid.*
[160] Cynthia Rudin, "Stop Explaining Black Box Machine Learning Models for High Stakes Decisions and Use Interpretable Models Instead" (2018), online: <https://arxiv.org/abs/1811.10154>.

neural networks, ensemble methods, large language models. These models are often described as "black boxes" because their internal operations are difficult for humans to understand directly.[161] Explainable techniques often offer what is termed 'post hoc explanations', which can often be misleading or incomplete.[162]

Therefore, in the area of legal and administrative decision making, inherently interpretable models of machine learning are recommended over explainable models because of the high level of transparency and accountability required for such decisions.

Processing Unstructured Text

As the volume of text and documents available for analysis has grown in recent years, data scientists have continued to devise means to categorize and organize large datasets. Examples of such data mining methods include text classification, Named Entity Recognition (NER), topic modelling.[163] To be able to work on unstructured text and process them into categorical data for analysis, the text has to undergo the following processes namely: document ingestion, text cleaning and preprocessing, tokenization and embedding, named entity recognition, thematic classification, ontology mapping and structured feature output.[164] With respect to refugee claim documents, the output which may be derived from such data processing may include features such as: claim ID, year, country of persecution, ground of persecution, agent of persecution, claim type, etc.

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[161] *Ibid.*
[162] *Ibid.*
[163] Kamal Taha et al, "A comprehensive survey of text classification techniques and their research applications: Observational and experimental insights" (2024) 54 Comput Sci Rev 100664.
[164] *Ibid.*

These processes of extracting patterns, themes from unstructured text and categorizing the data for analysis are described in more detail in Chapter four with respect to refugee claims documents.

3.3.3 Algorithms and Bias

Extracting data from unstructured text and categorizing them may alter epistemic framing. Refugee determination is inherently individualized. Thus, converting narratives into variables can pose risks, such as reducing lived experience to statistical categories, privileging patterns over nuance, reinforcing past decision trends, and producing automation bias.

Similarly, bias can arise in algorithms in several ways. The data sample may be biased, stemming from preferences applied at the point of collecting them. Also, the data may reflect existing societal biases, thus "to the extent that society contains inequality, exclusion or other traces of discrimination, so too will the data."[165] More so, output may be biased if the training data does not reflect true experiences of the environment in which the system is supposed to perform.[166] Authors have noted that an algorithm may produce unexpected and unintended outcomes if it is faced with remarkably different scenarios from the data it was trained on.[167] This may not be cured just by using large quantities of data because even where the dataset is large, the quality of data also affects the validity, accuracy, and usefulness of the outcomes.

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[165] Bryce Goodman and Seth Flaxman, "European Union regulations on algorithmic decision-making and a 'right to explanation'" (2017) 38:3 AI Magazine 1 at 3.
[166] Alexandra Chouldechova, "Fair prediction with disparate impact: a study of bias in recidivism prediction instruments" (2017) 5:2 Big Data 153.
[167] Sofia C Olhede and Patrick J Wolfe, "When algorithms go wrong, who is liable?" (2017) 14:6 Significance 8.

When data is deliberately withheld, the algorithm's performance may be significantly impaired.[168] Thus, it is not always true that once large data is collected, algorithms will not be biased.[169]

The risk here is the fact that machine learning can reinforce existing patterns of discrimination if these patterns already exist in the data on which it is trained. Since machine learning trains on past data, trends, and patterns to make predictions, optimize, and solve problems, there is a risk of bias as it relies on previous patterns and data to produce current results.[170] Thus, if applied to refugee claims processing, there may be a risk of bias in using it to make decisions on claims. The program may rely on factors and decisions from past claims to reach new decisions, thereby potentially ignoring new facts, distinguishing factors, and other relevant considerations.

This thesis advocates that the IRB should use supervised machine learning in its processes. This is because, in supervised machine learning, humans label the initial data with important features in advance, and the correct output can be predicted.[171] And as argued by Barale,[172] machine learning tools can enhance fairness and consistency in refugee decision-making because of their inherent ability to improve based on data it receives, such that like claims will receive like outcomes thereby enhancing consistency in decision making.

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[168] *Ibid.*
[169] Solon Barocas and Andrew D Selbst, "Big data's disparate impact" (2016) 104 Cal L Rev 671.
[170] Goodman & Flaxman, *supra* note 165.
[171] Praba et al, *supra* note 138.
[172] Barale, *supra* note 35.

Most importantly, if AI tools remain supportive in their role, that is, organizing information rather than evaluating it, and with the appropriate human oversight, the entire process can enhance efficiency without undermining fairness.

3.4 Generative Artificial Intelligence (GenAI)

A notable example of artificial intelligence being used to solve a variety of tasks is Generative Artificial Intelligence (GenAI). The most popular GenAI tool is ChatGPT, which can generate audio, images, video, etc.[173] GenAI has been referred to as computer programming that exhibits the intelligence typically found in an average adult human.[174] At the risk of sounding extreme, GenAI may even be likened to having a 'theory of mind', in that it has the ability to understand human thoughts and intentions and can generate a response thoroughly describing human mental states and emotions.[175] More importantly, GenAI can process unstructured data, organize it, and turn it into clear and actionable ideas.

However, the artificial intelligence tools suggested to be integrated into refugee claims determination processes are "not" GenAI. This aligns with the argument advanced by Dahan et al., underscoring risks associated with generalized AI tools, such as inaccuracies and hallucinations.[176] They raised concerns regarding the reliability, transparency and accountability of the existing generative AI tools, contending that open-source models allow for better scrutiny and thus more trustworthy than their generalized counterparts.

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[173] Practical Law Notes and Securities, supra note 150.
[174] *Ibid.*
[175] Michal Kosinski, "Evaluating large language models in theory of mind tasks" (2024) 121:45 Proc Natl Acad Sci <https://doi.org/10.1073/pnas.2405460121>.
[176] Dahan et al, *supra* note 76.

Algorithms and artificial intelligence constitute powerful tools shaping modern societal infrastructure, influencing critical decisions across multiple sectors. Our comprehensive understanding of them is important. This will equip us to adequately address the ethical, legal, and social challenges they pose, particularly in ensuring fairness, accountability, and transparency in deploying AI within any given sector.

CHAPTER FOUR

THE REFUGEE DETERMINATION SYSTEM IN CANADA

4.1 The Refugee Determination System in Canada

This thesis argues that some processes of the Immigration and Refugee Board of Canada should be automated in light of the modern-day methods of task completion, for more efficiency and effectiveness of Canada's largest administrative tribunal. These processes include the triaging of files, streaming of claims, assigning of claims to Members, and determining less complex positive claims.

To properly make this recommendation, it is important that the refugee determination system in Canada be evaluated first. This chapter will analyse the process of making a refugee claim in Canada from the point the claim is made, to when it is referred to the Refugee Protection Division of the Board, and to the process of hearing the claim or deciding the refugee claim on paper.

For a person to be given refugee protection in Canada, they must meet the definition of a Convention Refugee or a Person in Need of Protection. A Convention Refugee is a person who has a subjective fear of persecution in their country. Article 1 of the United Nations 1951 Refugee Convention defines a refugee as someone who "owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of [their] nationality and is unable or, owing to such fear, is unwilling to avail [themself] of the protection of that country; or who, not having a nationality

and being outside the country of [their] former habitual residence, is unable or, owing to such fear, is unwilling to return to it."[177]

Section 96 of Canada's Immigration and Refugee Protection Act (*IRPA*)[178] adopts a similar definition of a Convention refugee. On the other hand, a Person in Need of Protection is a person who would be in danger in their country because they fear torture[179] or a risk to their life, or a risk of cruel and unusual treatment or punishment.[180]

The Immigration and Refugee Board of Canada has four main divisions, namely: the Refugee Protection Division (RPD), the Refugee Appeal Division (RAD), the Immigration Division (ID), and the Immigration Appeal Division (IAD).[181] A refugee claim can be made in either of two ways: at the point of entry (POE) into Canada or at a CBSA/IRCC office if the prospective refugee claimant is already inside Canada (INLAND).[182]

4.1.1 Making a claim at the POE

A person can make a refugee claim as soon as they arrive in Canada at a port of entry; either at the airport, a land border or a seaport.[183] When a person makes their refugee claim at the point of entering Canada, a Canada Border Services Agency (CBSA) officer will ask them questions

[177] *Convention relating to the Status of Refugees* (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137 (Refugee Convention).
[178] *Immigration and Refugee Protection Act (S. C. 2001, c. 27).*
[179] IRPA, s.97(1) a.
[180] IRPA, s. 97(1) b.
[181] *IRPA*, s. 151.
[182] IRPA, s. 99.
[183] Immigration and Refugee Board of Canada, "Make a Claim for Refugee Protection" (last updated 2025-06-26). <https://irb-cisr.gc.ca/en/applying-refugee-protection/Pages/crp-step-1.aspx>.

to see if the person can make a refugee claim.[184] The CBSA officer will take the person's fingerprints and photo and may assist the refugee claimant with filling out the forms, or the claimant can fill out the application summary form by themselves on the IRCC online portal.[185] The refugee claimant has 45 days to complete the application summary.[186]

After questioning, if the CBSA officer finds the claim eligible, the officer "will refer the claim to the Refugee Protection Division (RPD) of the Immigration and Refugee Board of Canada."[187] The officer upon determining that the person is eligible to make a refugee claim will give the person a Refugee Protection Identity Document (RPID).[188] In addition, the officer will give the refugee claimant a form titled Confirmation of Referral which shows that the officer has sent the claim to the RPD.[189]

It then becomes the responsibility of the refugee claimant to complete their Basis of Claim (BOC) form and send the form directly to the RPD within 45 days after the officer sent their claim to the RPD.[190] The reasons for making the refugee claim should be explained on the BOC form.[191]

4.1.2 Making a claim inside Canada

Suppose a person decides to claim refugee protection when they are already inside Canada. In that case, the person must complete their online application using the IRCC portal and must book

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[184] *Ibid*.
[185] *Ibid.*
[186] *Ibid.*
[187] *Ibid*.
[188] *Ibid.*
[189] *Ibid.*
[190] *Ibid.*
[191] *Ibid.*

and attend an appointment at an IRCC office.[192] Once the online application is started, the person has up to 90 days to complete it, and they have to commence a fresh application if the present one is not submitted within 90 days.[193] The refugee claimant will also need to submit their supporting documents, and these include their identity documents and travel documents, if available, and their completed BOC form.[194]

After submitting their online application, the refugee claimant will attend an appointment at an IRCC office regarding their refugee claim.[195] If the IRCC officer determines that the claim is eligible, they will refer the claim to the RPD.[196] The officer will give the refugee claimant a Refugee Protection Identity Document (RPID) and a Confirmation of Referral document.[197]

After submitting the claim for refugee protection, whether at the POE or INLAND, the IRCC will send a package referred to as the Minister's Information to the RPD. This package includes the client application summary, Confirmation of Referral, the BOC form, the refugee claimant's identity/travel documents, use of representative form (if applicable), and interview notes. Upon receiving the Minister's Information package, the RPD, through its Central Processing Unit (CPU), will review the information package to ensure that the information is complete. At this stage, if the CPU officer finds an incomplete BOC form, it is their responsibility to send out a BOC Request letter to the claimant and counsel, if applicable, requesting the claimant to provide complete answers to the missing parts of the BOC.

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[192] *Ibid.*
[193] *Ibid.*
[194] IRPA, s. 99 (3.1).
[195] *Ibid.*
[196] IRPA, s. 100 (1).
[197] Immigration and Refugee Board of Canada, "Making a claim", *supra* note 183.

The Front End Security Screening, otherwise known as FESS, must be completed. The Canada Border Services Agency conducts the security screening in partnership with the Canadian Security Intelligence Service. The FESS is undertaken in the interest of public safety. FESS must be completed for all adult refugee claimants, and the security screening for the refugee claimant must be passed before the claim can be scheduled for a hearing or determination under the file review process.[198]

The ICAC Package is sent to the RPD. The Integrated Claim Analysis Centre (ICAC) is a pilot project involving "the Immigration and Refugee Board (IRB) with Canada Border Services Agency (CBSA) and Immigration, Refugees and Citizenship Canada (IRCC)."[199] The purpose of this pilot is to test more efficient ways of preparing case files while maintaining the independence of the IRB decision-making process and safeguarding all rights and protections of refugee claimants.[200] The ICAC program is administrative in nature and does not influence the outcome of refugee claims. The ICAC package identifies the claim type and makes a scheduling recommendation for that claim, either under File Review (in chambers decision), otherwise known as paper review, Short Hearing (2 hours or less), Regular Hearing Half-Day (3 hours), or a Complex Hearing (full day). The ICAC package contains a disclosure of biometrics results for the refugee claimant, where available. Also, it includes a disclosure of any temporary resident visa application made by the claimant to Canada within the previous two years. The ICAC

[198] The file review process will be analyzed in more detail in subsequent sections of this Chapter.
[199] Government of Canada, PACP - Status of Integrated Claim Analysis Centre (ICAC) in Toronto - Nov 24, 2020. <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/committees/pacp-nov-24-2020/pacp-status-icac-nov-24-2020.html>.
[200] *Ibid.*

package includes a notification of whether the Minister intends to intervene in the refugee claim or not, and the grounds of such intervention, where applicable.

There are some countries and claim types for which the IRB may determine that, based on overwhelming evidence of country conditions in such countries, it becomes imperative that claims arising therefrom be streamed and concluded under the file review process, except where there are issues of credibility, identity, or exclusion with respect to a particular claim. Such claims need not go through the ICAC process. More so, because the IRB is independent in its decision making, ICAC recommendations may be reviewed otherwise if the Adjudicative Case Officers (ACOs) deem it fit. This is of course with the exception of cases where the Minister is already intervening.

In the IRB, streaming claims to regular hearing, file review process, or short hearing is the responsibility of the Adjudicative Case Officers (ACOs). The ACOs may stream claims into the less complex claims category. They do this by manually examining the claim, the grounds of the claim, and the factors considered in streaming claims under this category. Under subsection 19(4) of the previous version of the RPD Rules,[201] these factors were relevant in identifying cases that appear to be manifestly well-founded, namely:

"(*a*) There are no issues that should be brought to the attention of the Minister,

(*b*) The claimant's identity is sufficiently established,

(*c*) There are no serious credibility issues, and

[201] *Refugee Protection Division Rules,* SOR/2002-228, Rule 19(4).

(*d*) The information given by the claimant is consistent with information about conditions in their country of nationality or, if they have no country of nationality, their country of former habitual residence, and establishes that the claimant is a Convention refugee or a person in need of protection."[202]

It is important to note that these factors are now included in the list of considerations in the Instructions for streaming of less complex claims.[203]

Before progressing further with the idea of automating some of the IRB's processes, it is paramount to mention at this stage that this thesis will in no way recommend that all refugee claim types be automated, especially claims where there are serious issues of identity, credibility, and generally issues of possible exclusion under section E or F of Article 1 of the Refugee Convention.[204]

This thesis will analyze the less complex claims category, which is the category of claims that I argue can be automated. In summary, upon triaging files, some claims proceed to regular hearing, some to short hearing, while others proceed under the file review process. Claims that

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[202] *Ibid*.

[203] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims at the Refugee Protection Division" (January 29, 2019). <https://irb-cisr.gc.ca/en/legal-policy/policies/pages/instructions-less-complex-claims.aspx>.

[204] *Refugee Protection Division Rules* (SOR/2012-256), Rule 26; Sections E and F of Article 1 of the United Nations Convention Relating to the Status of Refugees provide thus:
"E This Convention shall not apply to a person who is recognized by the competent authorities of the country in which he has taken residence as having the rights and obligations which are attached to the possession of the nationality of that country.
F The provisions of this Convention shall not apply to any person with respect to whom there are serious reasons for considering that:
(a) he has committed a crime against peace, a war crime, or a crime against humanity, as defined in the international instruments drawn up to make provision in respect of such crimes;
(b) he has committed a serious non-political crime outside the country of refuge prior to his admission to that country as a refugee;
(c) he has been guilty of acts contrary to the purposes and principles of the United Nations."

are streamed to the short hearing and file review are broadly categorized under the umbrella of less complex claims.

4.2 The Less Complex Claims

Canada's Immigration and Refugee Board (IRB) has the responsibility to adjudicate refugee claims in a fair and just manner and within reasonable time.[205] The board accomplishes this by allocating resources proportionate to each claim based on its level of complexity.[206] The IRB has been utilizing short hearings as a tool to resolve straightforward refugee claims in shorter hearing time (usually 2 hours instead of the four hours allotted to regular hearings) and also deciding specific claims without a hearing in appropriate cases.[207] Various policy instruments, particularly the *Fast Track Hearing Process*[208] and the *Expedited Process*[209] have been enacted at various times to support the IRB's strategic case management.[210] "Identifying claims to be decided with a short hearing or with a file review is a case management tool used to provide efficient administrative justice."[211] This is in line with the IRPA which states that "the RPD must proceed both fairly and efficiently".[212]

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[205] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.
[206] *Ibid*.
[207] *Ibid.*
[208] *Fast Track Policy: Hearing Process*, effective date March 14, 2005; Repealed December 15, 2012.
[209] IRB *Policy on the Expedited Process* (policy no. 2001-01, effective date June 1, 2001); Updated March 14, 2005; Repealed December 15, 2012. A new *Policy on the Expedited Processing of* Refugee Claims by the Refugee Protection Division, Immigration and Refugee Board was issued on September 18, 2015.
[210] *Ibid.*
[211] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.
[212] IRPA, s 162(2), which provides that "Each Division shall deal with all proceedings before it as informally and quickly as the circumstances and the considerations of fairness and natural justice permit."

On January 19, 2019, the RPD signed into effect Instructions governing the streaming of less complex claims at the Refugee Protection Division.[213] These Instructions outline various factors to be considered in identifying "claims which may be decided without a hearing and those which may be decided with a short hearing."[214] These 2019 Instructions replace the earlier *Policy on the Expedited Processing of Refugee Claims by the Refugee Protection Division, Immigration and Refugee Board.*[215]

Some principles guide the streaming of less complex claims at the RPD and are as follows

Member Independence: The fact that a claim is designated as one to be determined under the file review process or the short hearing process should not be suggestive of the outcome of that claim. This is because Members are independent and should assess each claim on its own merit without being influenced by the categorization of the claim.[216]

Opportunity for parties to be heard: When a claim is chosen for the file review process, a Notice to Appear is not provided; therefore, the RPD registry must notify the Minister that the claim is under the file review process. Also, where a member determines that a claim cannot be accepted through the file-review process, the claimant and/or their counsel will be notified, and a hearing will be scheduled for the claimant to appear and present their case before the Member.[217]

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[213] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.
[214] *Ibid*.
[215] Policy on the Expedited Processing of Refugee Claims by the Refugee Protection Division, Immigration and Refugee Board. Effective date September 18, 2015, as cited in Immigration and Refugee Board of Canada, "less complex claims" *supra* note 203.
[216] Immigration and Refugee Board of Canada, *supra* note 203.
[217] *Ibid.*

This is very important, as can be seen in *Singh v MEI*[218] where the appellants argued "that the procedure for determining refugee status claims established in the *Immigration Act, 1976,* is inconsistent with the requirements of fundamental justice articulated in s. 7 of the *Canadian Charter of Rights and Freedoms*[219] and s. 2(e) of the *Canadian Bill of Rights*."[220] In that case, the appellants' claims to refugee status were denied without their being afforded a full oral hearing at a single stage of the proceedings before any of the adjudicative bodies or officials.

The administrative procedures, found in "sections 45 to 48 of the *Immigration Act*, 1976, required the Refugee Status Advisory Committee and the Minister to act fairly in carrying out their duties."[221] However, they did not provide an opportunity for refugee claimants to be heard beyond their claim and the transcript of their examination under oath. Also under the Act, refugee claimants were not given an opportunity to respond to the Minister's advice to the Refugee Status Advisory Committee regarding their claims. In that case, the Supreme Court of Canada, "*per* Beetz, Estey and McIntyre JJ held that the procedures followed for determining Convention refugee status in those appealed cases are in conflict with s. 2(*e*) of the *Canadian Bill of Rights."*[222] To comply with s. 2(e), and s. 7 of the *Canadian Charter of Rights and Freedoms,* an oral hearing ought to have been held.

Hearings are required where credibility is at stake, and in a paper positive claim, there are no serious credibility issues at stake to require giving the claimant an opportunity to answer to those

[218] *Singh v. Minister of Employment and Immigration*, 1985 CanLII 65 (SCC), [1985] 1 SCR 177.
[219] *Canadian Charter of Rights and Freedoms*, Constitution Act, 1982, Schedule B to the Canada Act 1982 (UK), 1982, c 11.
[220] *Canadian Bill of Rights*, R.S.C. 1970, App. III.
[221] *Immigration Act, 1976*, 1976-77 (Can.), c. 52.
[222] *Singh v MEI supra.*

issues raised. As a matter of constitutional law, under the Charter and Bill of Rights, the right to be heard requires that refugee claims be heard before they can be denied. This ensures that a claimant is given the opportunity to explain and address issues, while the Member weighs the reasonableness of those responses to assess credibility. Where a claim raises no serious credibility issues, and the country conditions support such a claim, the refugee claim may be granted without a hearing. This would not be a violation of the constitutional right because the outcome shows that the refugee claimant's claim was heard and found to be well-founded.

System Integrity: Paragraph 170(*b*) of the IRPA provides that the Refugee Protection Division, in any proceeding before it, must hold a hearing. In addition, paragraph (f) of the same section 170 provides RPD Members with the authority to allow certain claims without a hearing. However, claims that do not meet the criteria of these Instructions will not be decided without a hearing.[223]

System Efficiency: These Instructions contribute to maximizing efficiency in the delivery of administrative justice. This is achieved by allocating resources to refugee claims based on their requirements and complexity.[224]

Public Safety: For an adult's refugee protection claim to be accepted under the file-review process, the IRB must have received confirmation that security screening has been completed.[225] More so, for claims where an issue of exclusion has been raised, with the Minister intervening in person, such claims are not eligible for the file review or short hearing process.[226]

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[223] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.
[224] *Ibid.*
[225] *Ibid.* The FESS has been described briefly on page 77 above.
[226] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.

4.2.1 File review process

Under the file review process, claims may be decided without a hearing pursuant to paragraph 170(f) of the IRPA.[227] This sub-paragraph notwithstanding, it is still within the discretion of the presiding Member to decide how to proceed. If the Member deems it appropriate to send the claim to a hearing, the Member has the discretion to do so.[228] Upon an initial review of a claim by the Adjudicative Claims Officer, if it is found to be manifestly founded, such a claim may be considered under the file review process and be determined without a hearing.[229]

The RPD, through the Task Force for Less Complex Claims (TFLCC), determines the suitability of claims to be assigned to the file-review process. Some factors considered in streaming claims to the file review process include claim types, prevalent country conditions, and other relevant factors.[230] Remember that grant rates are used as a form of algorithm to determine whether particular countries/claim types are suitable for streaming to file review.

In addition, the presiding member may also identify a claim as suitable under these Instructions and may decide the claim without a hearing after all procedures have been satisfied.[231]
Where the RPD has not received a confirmation of front-end security screening, or the Minister is intervening in person, or there are possible issues of exclusion, inadmissibility or integrity or where there are concerns regarding the claimant's identity, or serious credibility issues arising

[227] *Ibid.*
[228] *Ibid.*
[229] *Ibid.*
[230] *Ibid.*
[231] *Ibid.*

from the claim, or the claim is inconstant with the country information or there are complex legal or factual issues to be resolved; the RPD will not decide the claim without a hearing.[232]

It is important to note that section 170(f) includes the phrase "allow a claim." This presupposes that all claims that are concluded under the file review process must be allowed; in other words, the claim for refugee protection must be granted. This is important in ensuring fairness because a claim ought not to be rejected if the claimant is not given an opportunity to answer to any concerns raised by the Member in the adjudication of such a claim. Therefore, where an RPD member finds that a claim raises issues of concern which ought to be put to the claimant for explanation, then such a claim shall be transferred to the short hearing stream or taken back to the regular hearing stream for it to be scheduled for a hearing. This will give the claimant the opportunity to appear before the RPD Member and provide explanations to the concerns or issues raised.

The foregoing sub-paragraph acts as a safeguard against algorithmic bias, assuming the IRB adopts artificial intelligence tools in the adjudication of claims under the file review process. The fact that only positive claims will be processed under this stream provides some assurance that a claim will not be unjustly rejected due to the accumulation of bias on the part of the AI tools used.

The file review process has been criticized on the grounds that it takes away the opportunity to question claimants, which is an avenue to test credibility, detect fraud, identify and flag potential

[232] *Ibid.*

program integrity and security risks.[233] I, however, maintain that this argument is not entirely valid. This is because adjudicative claims officers have been trained to review claim files and all accompanying documents in line with the Streaming Instructions to determine very straightforward claims with no credibility issues before such files proceed to a positive decision. Any file found not to qualify for such disposition without a hearing must be returned to the regular stream.

4.2.2 Short hearing process

To categorize a refugee claim under the short hearing process, such a claim must involve one or two determinative issues in addition to the claimant's credibility, and the refugee claim hearings can be completed in two hours.[234] Cases are assigned to the short hearing process based on the country conditions, claim types, and the outcomes in previous hearings.[235] Where the Minister files a Notice of Intervention to intervene in person in a claim, or the Minister has been notified of a possible issue of exclusion, inadmissibility, or integrity, such a claim can not be decided under the short hearing process.[236] The essence of categorizing a claim under the short hearing process is to conclude the hearing within a minimum time and also reduce the resources spent on concluding the claim.

From the foregoing analysis, it is recommended that the IRB should integrate AI in triaging files, assigning claims to members, streaming claims into the file review or short hearing processes as

[233] James Yousif, "Accepting Asylum Claims Without a Hearing: A Critique of IRB's "File Review" Policy" C.D. Howe Institute Commentary No. 703 (January 2026).
[234] Immigration and Refugee Board of Canada, "Instructions governing the streaming of less complex claims", *supra* note 203.
[235] *Ibid.*
[236] *Ibid.*

well as determining less complex claims streamed to the file review process. This is because such less complex claims end with either a positive decision or a referral to the short hearing or regular hearing stream. The key consideration being that such claims cannot result in a negative decision without first being referred to a hearing. Thus, such tasks can be well managed by AI.

4.3 Canadian Context: AI Use at the IRB

The Immigration and Refugee Board of Canada may not be able to continue to decline the use of artificial intelligence in its processes for much longer, given the tremendous rise in the number of refugee claims before it each year. According to recent statistics on refugee claims filed before the IRB, in 2024, 190,039 refugee claims were referred to RPD, with 73,456 claims finalized, and as of December 31, 2024, a total of 272,440 claims were pending finalization.[237] The most recent data shows that as of March 31, 2026, there were 294,989 refugee claims before the RPD that have not been finalized.[238] The primary issue with the backlog of claims is not just the increasing number of refugee claims, but the political choice not to increase resources proportionately based on the rising number of claims. This mismatch between the growing number of claims and the limited available resources is the real cause of the backlog. An example of political choices influencing refugee claim applications or other immigration policies is the recent Bill C-12, passed by Parliament on March 26, 2026[239]

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[237] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – 2024* (May 30, 2025) <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2024.aspx>.
[238] Immigration and Refugee Board of Canada, *Claims by country of alleged persecution – January to March 2026* <https://irb.gc.ca/en/statistics/protection/Pages/RPDStat2026.aspx>.
[239] Bill C-12, *An Act respecting certain measures relating to the security of Canada's borders and the integrity of the Canadian immigration system and respecting other related security measures,* 1st Sess, 45th Parl, 2025, (as passed by the House of Commons 26 March 2026).

It is important to note that, as of the time of the research and writing of this thesis, the IRB **does not** use artificial intelligence in its refugee determination processes.

4.3.1 How AI can be used in IRB refugee adjudication

There are various ways in which artificial intelligence technology can be utilized by the Immigration and Refugee Board. Drawing on Paul Daly's research on artificial intelligence and administrative tribunals, this thesis will briefly distinguish between simple automation and predictive analytics, machine learning, and generative artificial intelligence.[240] Also, the distinction between interpretable and explainable machine learning will be further emphasized.[241] This is important in this chapter, as it will inform the type of automation proposed for specific IRB processes in Chapter Six of this research.

The IRB triaging of claims can be done by simple automation. This is technology that uses basic computer programs to execute common tasks. Paul Daly, in his article, made an example of the Access to Information Online Request Service which he described as a simple automation process where Canadians submit access to information requests on the website.[242] The requests are "automatically redistributed to a Responding Institution among the 240-plus Government of Canada institutions".[243]

4.3.1.1 Categorical Data and Features Extraction

[240] Daly, "AI and Administrative Tribunals", *supra* note 25.
[241] See Chapter 3 for a more detailed discussion on Interpretable and Explainable machine learning.
[242] Daly, *supra* note 25.
[243] *Ibid* at 4.

The IRB can adopt a similar low-impact technology. Low-impact technology is similar to the simple automation described above; it involves using basic computer programs to perform simple tasks. This low-impact technology can be used by the board to triage refugee claims filed before it. This technology will be based on the specifics of the claim gleaned from the basis of claim and other claim referral documents, stream the claim, and categorize it under the appropriate class. In other words, the computer will use categorical data gathered directly from applicants to distribute the claims into appropriate categories, such as less complex claims category, regular hearing, or complex claims categories. A more detailed discussion on these categories can be found in section 4.2 of this chapter.

The forms will include drop-down menus featuring data such as country of nationality, country of alleged persecution, gender identity, marital status, religion, languages, language of interpretation required, the type of claim (e.g., political opinion, religion, membership in a particular social group, nationality, race, danger of torture, a risk to their life or to a risk of cruel and unusual treatment or punishment). This drop-down menu will be used to standardize the data into categorical forms. These drop-down fields produce structured data that is inherently machine-readable.

Another form of low-impact technology may be using AI to extract features from the basis of claims, apply those features against some model, and predict the appropriate stream.

Machine learning algorithms, particularly supervised classification models can be trained on historical IRB data to accurately assign standardized categorical labels and predict the appropriate stream type.[244]

4.3.1.2 Unstructured Text and Feature Extraction

Beyond the categorical data, artificial intelligence tools can be used to extract patterns in the narratives in the basis of claim forms. AI tools can also be used to extract information from other documents, such as country conditions documents and past decisions. This would help with making more accurate determinations. This can be done by digitization and text normalization.[245] If documents are scanned, for example, older decisions, AI-enabled Optical Character Recognition (OCR) converts them into machine-readable text. Once digitized, preprocessing occurs by removing formatting artifacts, segmenting sentences, breaking texts into words or subwords, reducing words to base forms, and removing stop words (e.g., "the", "and", "but") when appropriate.[246] The text remains unstructured at this stage, but computationally analyzable.

For the narratives, AI tools can be used to extract features by identifying salient patterns or variables in text and converting them into structured, categorical, or numerical representations. This can be done through the Natural Language Processing (NLP) techniques.[247]

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[244] Taha et al, "A comprehensive survey of text classification techniques and their research applications", *supra* note 163.
[245] *Ibid.*
[246] *Ibid.*
[247] Thomas Hofmann, "Unsupervised learning by probabilistic latent semantic analysis" (2001) 42 *Machine Learning.* <https://doi.org/10.1023/A:1007617005950>.

One such technique is Named Entity Recognition (NER). NER models can be used to identify and label specific entities in text, "by learning patterns in sequential data."[248] Such as countries, cities, ethnic groups, political organizations, religious affiliations, and dates. For example, the narrative text:

"I was arrested in Lagos in 2019 because of my involvement with the Youth Democratic Movement.", can be extracted to produce the following:

Feature	**Value**
Location	Lagos
Country	Nigeria
Year of Incident	2019
Political Organization	Youth Democratic Movement
Ground of claim	Political Opinion

This effectively transforms narrative content into structured variables.

Another technique is Topic modeling, which identifies recurring themes across documents.[249] It works through a probabilistic distribution of topics in a given document. Thus, using a probabilistic distribution of words in a document, each topic is explained, and the connection among topics becomes more visible.[250] For example, across hundreds of narratives, AI might detect clusters such as: Police brutality, gender-based violence, LGBTQ+ persecution, forced

[248] Taha et al, "A comprehensive survey of text classification techniques and their research applications", *supra* note 163 at 4.
[249] Dwijendra Nath Dwivedi, Ghanashyama Mahanty & Anilkumar Vemareddy, "How Responsible Is AI?: Identification of Key Public Concerns Using Sentiment Analysis and Topic Modeling" (2022) 12:1 Int J Inf Retr Res 1–14.
[250] *Ibid.*

recruitment, politically related persecution, religious persecution, ethnic minority persecution etc. These become categorical 'topics' assigned probabilistic weights. Topic modeling helps to focus on the right content.[251] It is important to note that topic modeling does not determine credibility; rather, it identifies thematic patterns in documents.

Another NLP technique is text classification. Through text classification, "meaningful patterns" are extracted from text and categorized, "thereby transforming unstructured text into structured actionable insights."[252] Supervised machine learning models can be trained on historical decisions to classify documents into predefined legal categories.[253]

Examples:

1. Ground of persecution (religion, political opinion, PSG, race, nationality)
2. Type of harm alleged (detention, assault, threat, systemic economic deprivations)
3. Agent of persecution (state, non-state actor, family member, gang)
4. Procedural outcome (accepted, rejected, abandoned)

The model is trained on labeled historical decisions. It learns patterns in how language correlates with outcomes or classifications. This produces categorical outputs such as:

Document	**Predicted Ground**	**Approval rate**
Claim A	Political Opinion	87%
Claim B	Membership in PSG	91%

[251] *Ibid.*
[252] Taha et al, *supra* note 163 at 1.
[253] Taha et al, *supra* note 163.

However, doctrinally, this is where the risk increases, as classification models may begin to resemble predictive decision-making tools. Section 4.4 of this chapter analyses the potential risk of bias common with using such predictive decision-making tools. Chapter Five provides a detailed analysis of guardrails to mitigate the risk of bias when automating these processes.

Another area where the IRB can utilize artificial intelligence tools is the assignment of files to Members. For such a large tribunal, assigning files is complex, and manual assignment of claims would be administratively challenging and time-consuming. AI can assist in assigning files to Members. Such automated assignments would relieve the tribunal of a significant administrative burden, as well as speed up the process of assigning files.[254]

In addition to simple automation, IRB processes can benefit from artificial intelligence tools designed through machine learning. As described in Chapter Three of this thesis, machine learning is a far more complex form of automation and can accurately be described as artificial intelligence. As previously defined in chapter 3, it is "a branch" of artificial intelligence "that employs computational techniques to enable systems to learn from data or experiences", whereby "systems are developed through the optimisation of algorithms to fit to training data, or improve their performance based through maximizing a reward".[255] For example, Immigration, Refugees and Citizenship Canada (IRCC) has adopted machine learning and designed systems to automatically approve applications that meet the criteria for a positive decision, based on data gathered from past applications that were also given a positive decision.[256]

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[254] Daly, "AI and Administrative Tribunals", *supra* note 25.
[255] ISO, *IEC standard 23053 Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML)* (2022).
[256] Daly, "Mapping Artificial Intelligence", *supra* note 24.

Furthermore, there is an argument that "AI and other statistical tools could contribute to reducing mistaken rejections by making the uncertainty inherent in [decision-makers'] judgments [visible], thereby [removing] any undue confidence in their conclusions."[257] From the literature review, in chapter 2 of this thesis, some authors argue that machines can outperform humans in "the prediction task because AI aggregates data across [multiple] cases and then accounts for the lack of reliable outcome data."[258] Thus, "when faced with poor data, a well-designed AI will generate a prediction that recognizes the high level of uncertainty, [and] as a decision-support tool, [will enable] a decision maker to be cautious in the face of uncertainty."[259] Cameron et al further argue that in refugee status decision-making, false positives (i.e., accepting a claim that is not well-founded) are less problematic than false negatives (i.e., rejecting the claim of a Convention refugee or a protected person). They suggest that AI tools can assist in recognizing "the uncertainty inherent in the predictions of harm while still enabling claims" to be rejected where there are precise predictions to that effect.[260]

Without sounding overly eager to relieve humans of their duties, this thesis argues that the less complex claims team of the IRB can adopt machine learning in its processes. The IRB can design machine learning systems capable of handling claims streamed to the file review process and finalizing these claims more effectively and efficiently. The type of machine learning category recommended is the interpretable machine learning systems, where the system

[257] Cameron et al, *supra* note 47 at 501.
[258] Cameron et al, *supra* note 47 at 504.
[259] *Ibid.*
[260] Cameron et al, *supra* note 47 at 506.

establishes rules that can be understood by humans.[261] On the other hand, "explainable machine learning involves generating a human explanation for the machine's 'thought process' through a parallel system."[262]

And as explained by Daly, there are various ways in which humans and machines can interact in an administrative environment. It is either that humans are part of the automation process or they are entirely outside of it. When humans are part of the automation process, it means that "they can intervene to approve or block a machine's decision or recommendation."[263] In other words, humans work hand in hand with technology to arrive at their decisions. What this means is that humans rely on some form of input from technology to properly finalize their decisions. For example, where the artificial intelligence system has read through the basis of claim and other referral documents and has summarized key items that place the claim within the purview of claims to receive a positive decision. On the other hand, humans can be "out of the loop" as Daly puts it,[264] and this means that there is no human intervention in the decision-making process, save for machine setup, and machines make the decisions automatically.

When humans analyze claims and make decisions based on input from machines, there may be a risk of bias known as "automation bias." This will be explored in the next section of this Chapter.

[261] Daly, "AI and Administrative Tribunals", *supra* note 25.
[262] *Ibid* at 6.
[263] *Ibid.*
[264] Daly, "AI and Administrative Tribunals", *supra* note 25 at 6.

For the IRB to be properly guided in choosing a particular system of machine learning, the impact of using such an AI system ought to be considered. To properly assess the impact of an automated decision system, the "complexity of the design, [its] algorithm, decision type, impact, and data" will be examined.[265] This is referred to as the Algorithmic Impact Assessment and is in line with one of the mandates as contained in the Treasury Board of Canada's *Directive on Automated Decision-making*.[266] The level of impact from an automated decision system can be assessed by measuring its effects on five broad areas: "the rights of individuals or communities; the equality, dignity, privacy, and autonomy of individuals; the health or well-being of individuals or communities; the economic interests of individuals, entities, or communities; and the ongoing sustainability of an ecosystem."[267]

The significance of each algorithmic decision is determined by these four levels of impact. Level I decisions are likely to have little to no impact on the five areas mentioned above, and any resulting impact is reversible and brief.[268] Level II decisions are likely to have moderate impacts, with short-term and likely reversible effects.[269] Level III decisions are likely to have high impacts, and they often result in consequences that are subsisting and can be difficult to reverse.[270] Level IV decisions carry very high impacts, and typically lead to long-lasting and irreversible effects.[271]

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[265] *Ibid.*
[266] DADM, *supra* note 3.
[267] *Ibid*, Appendix B - Impact Assessment Levels.
[268] *Ibid.*
[269] *Ibid.*
[270] *Ibid.*
[271] *Ibid*. See also Daly, "AI and Administrative Tribunals", *supra* note 25.

The measurement of the impact of each algorithmic decision on the five areas outlined is instructive. This is why the thesis does not recommend automating all refugee claims. Contentious Refugee claims where there are serious credibility concerns are not recommended to be undertaken by AI systems. Such claims require a hearing to afford the RPD Member to put those credibility concerns to the claimant and give the claimant adequate opportunity to respond to the issues at the hearing and/or provide the panel with post-hearing documents to assist the Member in arriving at a fair and just decision.

Triaging of refugee claims has little or no impact on the areas enumerated, and whatever impact it has is reversible. For instance, when a claim is streamed to the file review process, if the RPD member finds that the claim raises issues requiring a hearing, the Member can transfer such a claim to either the short hearing or the regular hearing stream. This indicates that even if, for any reason, the artificial intelligence tool incorrectly triages a claim to the file review process, the impact is reversible and short-term. Conversely, there may also arise a situation where the AI tool erroneously streams a claim from file review into a regular hearing. Such a situation will no doubt cause some degree of hardship on the affected claimant or claimants, particularly if it is discovered at the end that such a claim would have qualified for determination under the file review process at the very beginning if not for an error in streaming. Such a claimant might have had to wait for additional months or even years to have their claim finally determined under a regular hearing, such that even if the decision ends in a positive, they would have suffered some impact, e.g., delays in sponsoring their family members and reuniting where applicable, the anxiety and stress of waiting for a new hearing date, among others.

However, the reality is that humans are also prone to such errors. When an adjudicative claims officer misinterprets the facts in a claim or other information in the file and based on that, streams the claim out of file review, the affected parties will suffer hardship similar to that discussed above. Upon reviewing some refugee claims streamed out of file review and into regular hearing, one might find that if the information in those claims were thoroughly considered and not misunderstood, those claims would have remained with the less complex claims unit. This would have saved the affected claimants the additional months or years they would have had to wait from when their files were removed from the TFLCC until a hearing is scheduled under the regular hearing stream.

Decisions on refugee claims significantly impact on at least four of the five areas highlighted above, specifically "the rights of individuals or communities, the equality, dignity, privacy, and autonomy of individuals, the health and well-being of individuals or communities, and the economic interests of individuals, entities, or communities."[272] Refugee claimants represent one of the most vulnerable populations of people whose rights are affected by the outcome of their claims. Their health, well-being, particularly mental well-being, and economic interests are equally affected. This is why the thesis recommends automating only claims streamed to the file review process. These processes either end in positive decisions or in referrals to a hearing, meaning that automating such less complex claims would not result in an outright denial but rather a referral to the short hearing or regular hearing stream. This is further in line with s. 7 of the Charter and s.2(e) of the Bill of Rights as analyzed above in section 4.2 of this Chapter. Referring such claims to a hearing ensures that the impact level remains at level one, as

[272] DADM, *supra* note 3; Appendix B - Impact Assessment Levels.

described previously in the DADM Impact Assessment levels above. At level one, decisions are likely "to have little to no negative impact on the" five areas highlighted above.[273]

More so, the more serious the impact of such automated decisions, the greater the need for safeguards. Thus, if the IRB uses AI technology to automate certain aspects of its processes, the potential impacts may be more or less significant. Where these impacts are more significant, more safeguards will be adopted. In addition to the safeguards against bias, measures could be implemented to protect privacy, prevent misuse of claimants' personal information, and promote transparency, fairness, and equality in the operation of these tools.

4.4 Is Bias a possibility, and how?

AI's impact is profound across various sectors, particularly in law and governance, where it has the potential to enhance efficiency, accuracy, and consistency. However, it also raises critical ethical and legal concerns regarding transparency, bias, accountability, and fairness in decision-making. This thesis argues that any bias present can be mitigated by implementing certain guardrails. These guardrails will be analyzed in more detail in Chapter Five of the thesis. Different concerns have been raised about the possibility of bias when artificial intelligence tools are used. The importance of this discussion lies in the fact that the recipients of these decisions, their consequences, and impact are the marginalized populations who are vulnerable, even more so in the face of algorithmic systems, which the claimants often lack the knowledge or skills to understand their reasoning and operation.

[273] *Ibid.*

Certain types of bias have been identified with the adoption of AI in an administrative tribunal's processes. One type is confirmation bias, which arises when a human reviewer relies heavily on the recommendations or results from an AI tool to the point where they cannot make an independent decision without relying significantly on the AI system's results. A vivid example here is when an RPD Member decides a case knowing that AI filtered it out of file review, indicating that there is something in the file that makes it not a straightforward positive; hence, the Member acting under that impression may be more inclined to fish for problems in the refugee application. Daly, Raso, and Tomlinson cautioned against over-reliance on automated systems, warning that these systems may lack the nuances needed to address complex claims.[274] Thus, human decision makers should not allow their decisions to be heavily influenced by AI system recommendations without applying other relevant factors as necessary. The foregoing risk of confirmation bias is one of the reasons why this thesis does not propose the automation of complex refugee claims, which will indeed require a more in-depth, nuanced approach (and a hearing) by a human decision-maker.

However, confirmation bias is just as much a problem in the current system, where a human streamed the case to a regular hearing instead of a file review. Thus, whether it is a computer or another person, confirmation bias could apply.

Thus, if and when the IRB starts to adopt artificial intelligence to automate the triaging of files, it is necessary to put safeguards in place to minimize the risk of confirmation bias. It is not easy to attribute confirmation bias to a reviewer since one cannot be one hundred percent certain if the

[274] Daly, Raso and Tomlinson, *supra* note 23.

reviewer is influenced by the automation of the process.[275] The reason for confirmation bias is uncertain, but an officer can start paying greater attention to more complex files than to files that are less complex because, from their experience of reviewing several files over time, they become adept at recognizing those low-risk files.[276]

One way to mitigate confirmation bias is through the random distribution of files, which would serve as a means of mitigating this risk, ensuring that decision-makers view files with different complexity levels.[277] Although the decision maker may be aware that a file before them was previously considered to qualify for the file review process, the fact that the member handles files of different complexities means their view should not be restricted to making similar decisions based solely on the repeated adjudication of the same claim type over time. In addition, quality assessment metrics could be developed, and an oversight team could be established to audit the decisions of members to ensure compliance with the metrics and reduce the chances of confirmation bias.[278] Chapter Six will provide a more detailed analysis of the recommended measures to minimize confirmation bias and other biases inherent in these decisions.

In the previous section of this Chapter and also in Chapter Three, we looked at two types of machine learning, *viz*, interpretable and explainable machine learning, and determined that for the purposes of automating refugee claims under the file review stream, an interpretable machine learning system is better suited. This is because Interpretable AI generates decision rules that

[275] Daly, "AI and Administrative Tribunals", *supra* note 25.
[276] *Ibid.*
[277] *Ibid.*
[278] *Ibid*; see also Immigration and Refugee Board, *Quality Assurance Framework for Decision-Making* (2023): <https://www.irb-cisr.gc.ca/en/transparency/qa-aq/Pages/qaf-caq.aspx>.

humans can readily understand, as it is able to offer insights into the logic behind the outcome of the decision-making that was arrived at.[279] However, interpretable machine learning also has its own limitations. One problem is "the significant potential for embedded systemic bias."[280] This presupposes the presence of prevailing societal norms and conventions gleaned through the lens of past refugee claims decisions, which have been programmed into the AI system and upon which the system relies to make current decisions. Thus, any refugee claims whose grounds, claim type, narrative, etc., do not fit into the conventional claim types, narratives, and grounds may run the risk of being denied on the basis of a systemic bias to the supposed unconventional refugee claim, (that is if such AI systems are programmed to deny claims, but for the purposes of this research, AI is not recommended for claims denial; because a claimant must be given the opportunity to appear before a decision maker at a hearing to answer to their claim before it may be denied).

It is worth noting that human decision-makers are not immune to this type of bias themselves. For example, Kenya as a country has more than 90% of the refugee claims made against that country on the grounds of persecution due to sexual orientation. A decision-maker who has heard several of such claims from Kenya over a few years may have built some bias towards these types of claims, such that if a refugee claim from Kenya, which is based on other grounds, is assigned to such a decision-maker, they may be unconsciously biased against the new claim due to it not being based on the common ground of persecution based on sexual orientation. Therefore, the question becomes this: where both a human decision-maker and an automated system have the potential for similar bias, can the efficiency gained from automating such

[279] Daly, "AI and Administrative Tribunals", *supra* note 25.
[280] *Ibid* at 23.

decisions outweigh any harm that comes from the bias embedded in the system? From the review of literature so far, it is my position that the potential harm from using AI does not outweigh the benefits thereof. This is especially true because regulatory frameworks, such as the DADM, guide the use of these tools in administrative or decision-making processes. Thus, when used within the specified rules, these AI tools should pose less risk. These guardrails will be analyzed in the following Chapter. This thesis will not address this question further, as it argues for the automation of some of IRB's processes and does not attempt to compare the decision-making process between humans and machines.

The second problem is the legitimacy of the refugee adjudication process if machines hand down the decisions, as this has been argued to remove the human touch, which is the basis of legitimacy for such administrative tribunals' decisions,[281] as they are seen as coming from an independent and impartial umpire. Many scholars have identified bias as a risk associated with adopting artificial intelligence in refugee claims adjudication. Several authors have acknowledged this bias with varying labels such as algorithmic bias, systemic bias, and even opacity, which is directly linked to bias. Barale, in her article, acknowledges the possibility of algorithmic bias and lack of transparency when AI is used in a tribunal or at the border.[282] While very optimistic about AI's potential to resolve legal indeterminacy, Alarie also focuses on bias as one of the risks associated with AI in law, including opacity and ethical dilemmas.[283] Opacity of AI models has been identified as a big issue since opacity makes it difficult to identify and correct biases in decision-making. Algorithmic opacity can erode due process protection if

[281] Daly, "AI and Administrative Tribunals", *supra* note 25.
[282] Barale, *supra* note 35.
[283] Aidid & Alarie, *supra* note 33.

asylum seekers and their advocates cannot challenge or understand the reasoning behind an AI-generated decision, such that biased patterns can become entrenched in the decisions without proper mechanisms for redress.

Though her article successfully focuses on proactive fairness promotion rather than reactive bias mitigation, Amani's central argument also critiques AI's potential to reinforce systemic discrimination. She addresses key concerns about data-driven biases, emphasizing that AI systems often inherit and amplify societal inequalities embedded in their training data, thereby making it possible for algorithmic decision-making to harm marginalized communities disproportionately.[284]

However, some authors contend that human decision-making is equally fraught with inconsistencies as the adjudicators are often swayed based on different factors, seasons, and reasons. These adjudicative-consistency schools of thought argue that AI, if properly implemented, can enhance procedural fairness by mitigating human biases and improving the consistency of decision-making. Notwithstanding arguing in alignment with the foregoing schools of thought, Cameron, Goldfarb, and Morris raise several concerns regarding algorithmic bias in the application of AI to refugee claims adjudication.[285] They identified the potential for bias embedded in training data, and posit that if AI systems are trained on historical asylum decisions that reflect systemic discrimination or inconsistencies, they may replicate and reinforce those biases rather than eliminate them.[286] They argue that this is more prominent given the

[284] Amani, *supra* note 45.
[285] Cameron, Goldfarb & Morris, *supra* note 47.
[286] *Ibid*.

nature of refugee claims, where factors such as country of origin, race, gender, and political background are given significant consideration, which could be unfairly weighted in AI-driven assessments. Reyes is not left out in the discourse as he warns of biases embedded in AI algorithms that could lead to discriminatory outcomes, especially in identifying credible asylum claims.[287] In discussing the risks that automated systems bring, especially for marginalized populations who face negative impacts in welfare and other contexts, Raso highlights the opacity of algorithms as a vivid challenge.[288]

So much has been said regarding the possibility of bias in automated decisions and in triaging refugee claims files using artificial intelligence tools. However, there is no challenge that does not have a solution or at least a way to mitigate the severity of the consequences of that problem.

In the following chapter of this thesis, I will delve into the mechanisms, also referred to as guardrails, to mitigate potential bias associated with using artificial intelligence systems at the Immigration and Refugee Board of Canada.

[287] Reyes, *supra* note 55.
[288] Raso, *supra* note 12.

CHAPTER FIVE

THE GUARDRAILS

5.1 Relevant policy frameworks and laws guiding AI and Automated Decision Making in Canada

In the preceding chapters, I have analyzed various types of algorithms and artificial intelligence. Based on this knowledge of different AI types, a suitable type can be recommended for the IRB. Chapter four provides insight into RPD's refugee claim process, emphasizing the areas where artificial intelligence will be beneficial to the refugee determination system and the board. Artificial intelligence is not without criticism; one of such concerns is its potential for bias. Moreover, critics argue that Canada lacks a sufficient legal framework to regulate AI and its implementation in various sectors, including the determination of refugee claims.

Canada has made attempts to enact soft laws and regulations to govern the use of artificial intelligence. Some of these take the form of directives, regulations, guidelines, proposed acts, and more. This chapter begins with a detailed analysis of the regulatory framework of AI in Canada, drawing from international best practices and foreign jurisdictions. It will examine various ways to make AI accountable and mitigate the potential for bias in administrative tribunals, particularly the Immigration and Refugee Board of Canada. Thus, if the IRB decides to automate one or more of its refugee claims determination processes, the law is not powerless in this regard.

5.1.1 Canada's Directive on Automated Decision-Making

The two major components that support the national strategy on AI and algorithms are the Directive on Automated Decision Making (DADM) and the Algorithmic Impact Assessment (AIA).[289] The DADM recognizes the role of artificial intelligence in administrative decision-making thus: "[t]he Government of Canada is increasingly looking to utilize artificial intelligence to make, or assist in making, administrative decisions to improve service delivery."[290]

The AIA is a mandatory risk assessment tool associated with the DADM. The tool measures risk areas, mitigation, and the impact of the proposed algorithms. The AIA contains a set of questions designed to measure the impact of an Automated Decision System (ADS) by rating it on a four-level impact scale, which is crucial for determining the level of intervention necessary.[291] The four areas that are mostly affected by automated decision systems have been previously analyzed in Chapter 4 of this thesis as well as the four levels of impact. The more complex an AI system is, the greater the risk it poses.[292] The greater the impact of the decision an AI system makes, the stricter the obligations imposed.[293] Thus, where the impact level is high, the DADM will impose stricter requirements. Appendix C of the DADM stipulates seven impact level requirements,

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[289] Ana Brandusescu, "Artificial Intelligence Policy and Funding in Canada: Public Investments, Private Interests" (March 2021), online (pdf): <www.mcgill.ca/centre-montreal/files/centre montreal/aipolicyandfunding_report_updated_mar5.pdf>.
[290] DADM, *supra* note 3.
[291] Diane McLead-McKay, Michael McEvoy & Jay Chalke, "Getting ahead of the curve: Meeting the challenges to privacy and fairness arising from the use of artificial intelligence in the public sector" (Office of the Information and Privacy Commissioner for British Columbia, 2021). <https://www.oipc.bc.ca/documents/special-reports/2395>.
[292] Paul Daly & Brandon Orct, "Artificial Intelligence Accountability of Public Administration in Canada" (2022). Ottawa Faculty of Law Working Paper No. 2022-30, SSRN <http://dx.doi.org/10.2139/ssrn.4266365>.
[293] *Ibid.*

namely: notice, explanation, peer review, gender based analysis plus, training, ensuring human involvement, and approval for the system to operate.[294]

The Immigration and Refugee Board of Canada is an employer under the Treasury Board; however, the DADM does not apply to every federal department but only to some selected departments listed in Schedule 1 of the Financial Administration Act.[295] Unfortunately, the IRB is not one of the federal departments to which the DADM applies. Thus, the IRB is not subject to this directive.

Nevertheless, this thesis proposes that the scope of the DADM be expanded to include the IRB within its scope of application or alternatively, that the IRB voluntarily comply with DADM provisions with regard to my proposal. The provisions of the DADM, if judiciously implemented by administrative bodies, including the IRB, will go a long way in safeguarding the automated decision-making process.

The DADM defines an automated decision system as "any technology that either assists or replaces the judgment of human decision makers. These systems draw from fields like statistics, linguistics, and computer science, and use techniques such as rules-based systems, regression, predictive, analytics, machine learning, deep learning, and neural nets."[296]

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[294] DADM, supra note 3, Appendix C Impact Level Requirements.
[295] DADM, *supra* note 3, cl 8.1; See the definition of "department" in Financial Administration Act, RSC 1985, c F-11, Schedule 1. These federal departments include: Women and Gender Equality; Agriculture and Agri Food; Canadian Heritage; Citizenship and Immigration; Crown-Indigenous Relations and Northern Affairs; Employment and Social Development; Finance; Fisheries and Oceans; Foreign Affairs, Trade, and Development; Health; Indigenous Services; Industry; Justice; National Defence; Natural Resources; Public Safety and Emergency Preparedness; Public Works and Government Services; Environment; Transport; Treasury Board; Veterans Affairs; and Western Economic Diversification.
[296] DADM, *supra* note 3, Appendix A.

The DADM is Canada's first national policy aimed at ensuring the responsible and ethical use of algorithmic and automated decision making in public administration.[297] It is based on the AI guiding principles adopted at the D9 conference in November 2018, which have the objective of ensuring that government institutions use artificial intelligence responsibly and effectively.[298] The DADM principles include: "(1) understanding and measuring the impact of using AI; (2) ensuring transparency about how and when AI is used; (3) providing meaningful explanations about AI decision-making; (4) remaining open to sharing source codes and relevant data while protecting personal data; and (5) providing sufficient training for the use and development of AI solutions."[299]

The AIA aims to gather public datasets illustrating the typical use of automated systems. The AIA comprises "48 risk-based questions and 33 mitigation-based questions."[300] The total score is based on several key factors: the data, the algorithm, the AI system's design, the type of decision, and the decision's impact.[301]

To deploy AI or an algorithm, the Ministry seeking to do so is responsible for complying with the five requirements enumerated in the DADM.[302] The Assistant Deputy Minister or their appointee is responsible for deploying the AI system for each Ministry. According to section 6.1.1 of the DADM, the Minister is responsible for "completing, approving, and publishing the

[297] Daly & Orct, *supra* note 292.
[298] *Ibid.*
[299] *Ibid* at 8.
[300] *Ibid*.
[301] *Ibid*.
[302] DADM, *supra* note 3, cl 6.1–6.5.

AIA results" on an open government portal. The Minister must ensure transparency by providing notice that the decision will be made using an ADS or with the assistance of an ADS.[303] Also, the Minister must provide explanations regarding the decision after it is made,[304] and document any such decisions.[305] More so, it is the responsibility of the Minister to ensure quality assurance by testing and monitoring outcomes of decisions made by the ADS.[306] The quality of the data used must be validated, qualified experts must review the automated decision system, and employees working with the system must be trained.[307] Compliance with legal requirements must be ensured, risk assessments must be conducted, and human involvement in the process must be ensured.[308] Furthermore, the Minister must inform the clients of the options available to them to challenge the decision.[309] A report must be published regarding the transparency and effectiveness of the ADS.[310]

However, despite the comprehensiveness of the provisions outlined above, the DADM has certain limitations. The scope of the Directive is limited to only "automated decision systems in production" used by administrative bodies in making decisions, as can be seen from section 5.1 of the DADM.[311] Additionally, it applies to ADS developed after April 1, 2020, as stipulated in section 1.2 of the Directive.[312] This is a limitation because departments that started using artificial intelligence before April 2020 will have their AI systems outside the scope of the

[303] DADM, *supra* note 3, cl 6.2.1.
[304] DADM, *supra* note 3, cl 6.2.3.
[305] DADM, *supra* note 3, cl 6.2.7.
[306] DADM, *supra* note 3, cl 6.3.
[307] *Ibid.*
[308] *Ibid.*
[309] DADM, *supra* note 3, cl 6.4.
[310] DADM, *supra* note 3, cl 6.5.
[311] DADM, *supra* note 3, cl 5.1.
[312] DADM, *supra* note 3, cl 1.2.

DADM based on its effective date.[313] Furthermore, the DADM applies to ADS used to provide 'external services', which are defined as services provided to clients other than the Canadian government.[314] This means that algorithmic systems that provide services to the government of Canada are not regulated under the DADM framework, making it difficult to identify the full extent of those systems. More so, the qualifier that the DADM applies only to systems that provide external services affects the IRB in such a way that it removes the IRB from the scope of the DADM. This is because if only IRB decision-makers are the ones using the algorithmic systems, then this is not an 'external service' as the clients are those decision makers and not the government of Canada. Although one may argue that services provided to IRB decision makers are provided to the government of Canada because the decision makers work for the government, though they are independent. Furthermore, the DADM does not apply to all federal departments; it applies only to the departments listed in Schedule 1 of the Financial Administration Act.[315] Thus, the departments to which the Directive does not apply are not mandated to disclose their use of AI systems in their decision making, and this is a limitation.[316]

5.1.2 The proposed Artificial Intelligence and Data Act (AIDA)

There are numerous statutes and proposed legislation that capture the use of AI in government systems. Based on the analysis of the law outlined below, it becomes increasingly clear that if the Immigration and Refugee Board decides to integrate artificial intelligence tools into its operations, it has a profound responsibility to uphold the rights of refugee applicants.

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[313] Daly & Orct, *supra* note 292.
[314] *Ibid*.
[315] DADM, *supra* note 3. See also fn 295 for the list of departments.
[316] See *Hughes v Canada (Attorney General)*, 2008 FC 832, at paras 15-22. In that case, the court held that the Treasury Board's policies and directives do not have the force of the law, unlike its Regulations, which can be enforceable.

On June 16, 2022, Canada's federal government introduced the *Digital Charter Implementation Act, 2022* (Bill C-27) to reform Canadian privacy law. Bill C-27 reforms the *Personal Information Protection and Electronic Documents Act* (PIPEDA) by introducing a new private sector privacy law, the *Consumer Privacy Protection Act* (CPPA), that contains new data privacy obligations and enforcement mechanisms.[317] Canada had attempted to reform the federal private sector through the *Digital Charter Implementation Act, 2020* (Bill C-11), but this attempt failed. The *Digital Charter Implementation Act, 2020* (Bill C-11) failed to pass when Parliament was dissolved for the 2021 federal election. However, the main proposals in Bill C-11 were reintroduced in Bill C-27.[318]

Bill C-27 passed second reading in the House of Commons on April 24, 2023.[319] The Prorogation of Parliament on January 6, 2025, and the subsequent federal election in April 2025 rendered this legislation moot. Bill C-27 is no longer before Parliament, although it could be revived later. Although Bill C-27 is not currently active, it is crucial because it embodies the AIDA, which contains the proposed Canada's regulatory framework for artificial intelligence. Therefore, the current status of the Bill notwithstanding, the provisions of the proposed AIDA occupy a significant position in acting as a guardrail against potential risks associated with using AI. This significance is what makes the AIDA relevant to this discourse.

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[317] The Canadian Bar Association, "Submission on Digital Charter Implementation Act", November 2021. <https://www.cba.org/our-impact/submissions/digital-charter-implementation-act/>.
[318] Bill C-27, *An Act to enact the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act and the Artificial Intelligence and Data Act and to make consequential and related amendments to other Acts* 1st Sess, 44th Parl, 2022, cl (second reading and referral to committee on Monday, April 24, 2023).
[319] *Ibid.*

If Bill C-27 is revived and passed as it is, three laws will be enacted therefrom:

- *The Consumer Privacy Protection Act* (CPPA).
- *The Artificial Intelligence and Data Act* (AIDA).
- *The Personal Information and Data Protection Tribunal Act.*

The AIDA is considered Canada's first attempt at creating a legal framework for artificial intelligence.[320] Though the AIDA may or may not be reintroduced, it represents the most comprehensive legislative attempt in Canada to develop principles governing the government's use of AI. Therefore, in the absence of another governing framework, this legislation should be taken seriously by all stakeholders interested in deploying AI in government decision-making. This is because AIDA, through its provisions, made a good attempt to balance out various competing considerations.

The AIDA proposes several rules and requirements to govern the design, development, and use of AI systems, and it is particularly targeted at providers, users, and importers of AI systems in Canada.[321] However, currently, the *Voluntary Code of Conduct on the Responsible Development and Management of Advanced Generative AI Systems* stipulates common standards and risk mitigation strategies for organizations to follow in deploying AI systems.[322]

[320] Practical Law Data Privacy & Cybersecurity, *Proposed Artificial Intelligence and Data Act (AIDA) Quick Facts: Overview* (Thomson Reuters Canada Limited or its licensors, 2025).
[321] *Ibid.*
[322] *Ibid.*

One of the purposes of AIDA is to prohibit conduct related to AI systems that may seriously harm individuals or their interests.[323] AIDA defines harm as including "physical harm, psychological harm, damage to property, or economic loss to an individual."[324] AIDA also contains risk assessment requirements for high-impact systems. Though the proposed Act does not define high impact systems, it stipulates certain requirements expected from a person responsible for a high-impact/high-risk AI system, which provisions mandate them to set up measures to identify any harm, risks, or potential bias arising from using such systems; assess those risks and implement measures to mitigate them.[325] The persons charged with the foregoing responsibilities are those who designed the system, developed it, or provided it to others to use in their course of work.[326] Such persons are also responsible for monitoring compliance with the mitigatory measures and assessing the effectiveness of those measures.[327]

The proposed Act also requires the publication of a detailed description of such high impact systems on a public website.[328] The publication must describe the following: the system's actual and intended use; the type of content the system generates or is programmed to generate; any decisions, recommendations, or predictions made by or expected to be made by the system; measures to mitigate harm and bias in the system.[329]

From the examination of the various sections of the proposed Act as discussed in the foregoing paragraphs, it is evident that AIDA has set some expectations for not only the developers and

[323] *AIDA*, s. 4.
[324] *AIDA*, s. 5(1).
[325] *AIDA*, ss. 7-9.
[326] *Ibid*.
[327] *Ibid*.
[328] *AIDA*, s. 11.
[329] *Ibid*.

designers of AI systems but also for the organizations that provide it to be used as part of their operation. Thus, by adhering rigorously to the provisions of this proposed Act and the fundamental principles outlined in the DADM, the IRB can significantly diminish the risks of bias that may accompany the deployment of automated systems. This will not only foster trust in the decision-making process but also ensure that the process is fair and equitable for all refugee applicants. Ensuring that these rights are protected is not merely an obligation; it is a moral imperative that reflects a commitment to justice and humanity.

Another aspect to consider is the fact that even AIDA acknowledges that not all AI tools need necessarily to follow the measures mentioned in ss 7-9. It does this by highlighting what it refers to as high impact or high-risk systems. This classification of some AI systems as high impact or high risk supports and strengthens the impact assessment levels contained under the DADM, which were previously discussed in Chapter Four of this thesis. Remember that the DADM also stipulates more stringent requirements and expects human intervention for decisions on level IV of the scale of impact. Thus, if the IRB adopts AI in assigning claims to Members, triaging files, and streaming claims, a risk assessment impact on these processes (though not required for low impact systems under the AIDA) will show that these processes in the refugee claims determination are more administrative than adjudicative and hence have low impacts on the claimants. On the other hand, if the IRB adopts AI systems to process and write decisions for less complex claims that are streamed into the file review process, a risk assessment of the file review process will indicate a low impact. This is because the AI system will be programmed to finalize only claims where the outcome is a positive decision. If the system detects any factors that potentially remove the claim from file review, the system will not finalize the claim.

Other than soft laws and regulations and the proposed *Artificial Intelligence and Data Act*, the Canadian government has established some units, charging them with the responsibility to research into the development of AI systems and come up with measures to regulate the development and address any potential risks that flow from these systems. Two such institutions are briefly mentioned below.

5.1.3 Canadian Artificial Intelligence Safety Institute (CAISI)

The Canadian Artificial Intelligence Safety Institute (CAISI) was established on November 12, 2024 as part of the government's strategy to entrench secure and trustworthy AI development and deployment.[330] CAISI's mandate is to improve Canada's capacity to address safety risks associated with advanced AI systems, provide a better understanding of those risks, and push for "the development of measures to address those risks."[331] CAISI works in collaboration with safety institutes in other jurisdictions, and they all form the International Network of AI Safety Institutes.[332] The CAISI "is part of the government's broader strategy to promote safe and responsible AI development in Canada, which includes the proposed *Artificial Intelligence and Data Act* and the Voluntary Code of Conduct on the Responsible Development and Management of Advanced Generative AI Systems."[333] The CAISI becomes very relevant to the IRB as the institute through its mandate will ensure that artificial intelligence tools and systems to be adopted by the IRB are safe and are accompanied with measures to address the risks associated

[330] Government of Canada, "Canada launches Canadian Artificial Intelligence Safety Institute", November 12, 2024. <https://www.canada.ca/en/innovation-science-economic-development/news/2024/11/canada-launches-canadian-artificial-intelligence-safety-institute.html>.
[331] *Ibid.*
[332] *Ibid.*
[333] *Ibid.*

with using such tools. Thereby protecting refugee claimants from any potential harmful impacts of such AI tools. Through this institute, the federal government is helping to ensure AI safety and build trust in artificial intelligence technology.

5.1.4 Guidelines for Secure AI System Development

Similarly, the Canadian Centre for Cyber Security (Cyber Centre) has collaborated with the UK National Cyber Security Centre, the US Cybersecurity and Infrastructure Security Agency, and 20 associated organizations to create Guidelines for secure AI system development.[334]
The Guidelines address four stages of the AI system development lifecycle, namely: "secure design, secure development, secure deployment, and secure operation and maintenance."[335] The Guidelines are intended for all AI stakeholders to understand and follow, as this will help them make informed decisions about the development processes of their AI systems.[336]

The CAISI and the Canadian Centre for Cyber Security have been given the mandate to collaborate with other international institutions in developing AI tools. This mandate makes these two institutes particularly relevant to this project because, working together with other bodies, these institutes will ensure the development and design of responsible and accountable AI systems and tools for use in Canada. Such that when the IRB adopts some of these systems and tools, they would have been developed in accordance with safety standards to mitigate the potential risks. Their relevance is grounded in showing that not only has Canada produced some

[334] Government of Canada, *Guidelines for secure AI system development*, Canadian Centre for Cybersecurity. November 27, 2023. <https://www.cyber.gc.ca/en/news-events/guidelines-secure-ai-system-development>.
[335] *Ibid.*
[336] National Cyber Security Centre, *Guidelines for secure AI system development*, November 27, 2023. <https://www.ncsc.gov.uk/collection/guidelines-secure-ai-system-development>.

soft laws and instruments to regulate the subject matter, but it has also established institutions for similar purposes.

5.1.5 Administrative Law Principles and Artificial Intelligence

Administrative law principles also provide a foundation for regulating artificial intelligence tools. A foundational principle of administrative law, 'procedural fairness', is vital to designing AI tools to be used by administrative bodies, including the IRB.

Administrative bodies have a duty to act fairly and make procedurally fair decisions.[337] This duty acts as a safeguard for individuals in their interactions with the government, since decisions made by administrative agencies can have a significant and lasting effect on people's lives. This is exemplified in the cases of *Baker v Canada,*[338] *Canada v Vavilov,*[339] and a host of other judicial decisions where the initial decisions made by the administrative body on the applications brought by the applicants/appellants, as the case may be, resulted in life-altering outcomes for the applicants involved. These life-changing outcomes precipitated the subsequent long legal battles in each of those cases.

And as Kate Glover Berger puts it succinctly, "the importance of fairness in administrative law reflects the belief that fair decision-making processes lead to high-quality decisions. In this sense, fair procedure is valuable because it promotes sound outcomes."[340] Thus, fairness as a

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[337] *Singh v Minister of Employment and Immigration*, 1985 CanLII 65 (SCC), [1985] 1 SCR 177; *Baker v Canada (Minister of Citizenship and Immigration),* 1999 CanLII 699 (SCC), [1999] 2 SCR 817; *Canada (Minister of Citizenship and Immigration) v Vavilov*, 2019 SCC 65.
[338] *Baker v Canada supra.*
[339] *Canada v Vavilov supra*.
[340] Kate Glover Berger, "The Principles and Practices of Procedural Fairness", in Colleen M Flood & Paul Daly, eds, *Administrative Law in Context,* 4th ed (Toronto: Emond Montgomery, 2022), 177 at 181.

foundational principle of administrative law ensures that the rights of those affected by state action are respected, thereby promoting a continued trust in the exercise of public power.[341] This is why it is essential to analyze algorithmic decision-making in light of these administrative law principles to ensure AI's commitment to these foundational principles.

Some of these administrative law principles include notice, fair hearing, the right to an impartial and independent decision maker, the right to reasons for the decision, and an appeal mechanism, among others.

Under the right to an independent and impartial decision maker, the law supposes that the decision maker is independent of influence from government, and does not have ties with anyone that could lead to a reasonable doubt regarding their impartiality.[342] Impartiality refers to the absence of bias on the part of the decision-maker, either real or perceived, and whether institutional or personal bias.[343] Impartiality differs from independence in that independence of a decision maker is freedom from influences of any sort that could fetter their discretion in making decisions, whereas impartiality of a decision maker is simply the absence of bias on their part. Both components are central to administrative and judicial decision-making. An impartial decision maker listens to both sides of an argument and is not influenced by external factors.[344] Thus, an impartial decision maker must also be independent. A decision maker may be independent but not entirely free from bias, especially personal bias. Where a decision maker is

[341] *Ibid.*
[342] McLead-McKay & Chalke, *supra* note 291.
[343] *Baker v Canada supra.*
[344] Teresa Scassa, "Administrative Law and the Governance of Automated Decision-Making: A Critical Look at Canada's Directive on Automated Decision-Making" (2021) 54:1 UBC L Rev 251.

not impartial, their ability to make an unbiased and fair decision becomes questionable. A party is entitled to object to a particular decision maker if they can establish a reasonable apprehension of bias arising from the decision maker's participation in the proceedings.[345] This is clearly one area where the use of artificial intelligence systems may be problematic, as parties may not have the opportunity to interact with such AI systems before their decisions are rendered. Therefore, they won't be able to observe whether there are any circumstances raising reasonable apprehension of bias in the AI systems. Thus, for decisions rendered by ADS, bias may be raised as an issue only after the fact.

With respect to AI tools, it becomes difficult to determine if these tools can be said to be truly independent. According to Scassa, independence becomes challenging where the AI system is "procured by the government, according to its specifications, and that can presumably be tweaked to improve, or at least alter, performance."[346] Thus, the question of whether an ADS is independent or not depends on many factors, including who procured it, the purpose it is procured for, how it is programmed, and the expected output from the system.

Impartiality may also arise as an issue where the decision is made by a human decision maker, but with reliance on some form of AI input.[347] In such cases, the impartiality of decision makers may be undermined by automation bias,[348] which is "the tendency of humans to rely upon the perceived *scientific* neutrality and objectivity of machine-based outputs".[349]

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[345] *Ibid.*
[346] *Ibid* at 30.
[347] Scassa, *supra* note 344.
[348] Automation bias is similar to confirmation bias, which was discussed in Chapter 4.
[349] Scassa, *supra* note 344 at 31.

Some authors have argued that a properly designed AI might be useful in eliminating more traditional forms of bias on the part of decision-makers.[350] This is in line with the argument posited by Barale,[351] Alarie,[352] Chen et al,[353] among others, that the benefits of artificial intelligence can be harnessed to address issues of subjectivity, inconsistency, and uncertainty in refugee decision-making.

The right to an independent and impartial decision-maker also requires that the decision be made by "the person charged by law with that role."[354] This is the rule against sub-delegation of authority. Thus, there may be improper delegation if the decision is made by someone other than the decision maker designated to do so.[355] Thus, there is the question of where the enabling legislation designates a human decision maker or a body of human decision makers, whether the use of AI tools to make decisions, wholly or partially, is an improper delegation.[356] Some authors have answered this question to say that a decision maker who has been appointed under an enabling legislation may use some insight from an automated decision-making system, but the ADS cannot make the decision except where expressly provided by the statute.[357] Thus, the decision maker must show their role in considering all applicable data and ensuring oversight over the decision made.[358] Another author opined that "provided the tribunal retains decision-

[350] Makoto Cheng Hong & Choon Kuen Hui, "Towards a Digital Government: Reflections on Automated Decision-Making and the Principles of Administrative Justice" (2019) 31:2 Sing Ac LJ 875, as cited in Scassa, *supra* note 344.
[351] Barale, *supra* note 35.
[352] Aidid & Alarie, *supra* note 33.
[353] Chen et al, *supra* note 57.
[354] Scassa, *supra* note 344 at 28.
[355] *Ibid.*
[356] *Ibid.*
[357] Jennifer Cobbe, "Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making", (2019) 39:4 Leg Studies 636.
[358] *Ibid,*

making authority and accords procedural fairness, it may obtain information and opinions from others."[359]

Another category of procedural rights involves certain safeguards in the process of making a fair decision. This includes the right to be given notice of a hearing and a corresponding obligation on the part of the administrative tribunal to provide notice to the intended parties. There is also the right to be heard, which includes the right to an oral hearing or the right to make written submissions in answer to the claim.[360]

In line with this administrative law principle of notice, the DADM stipulates that notice be provided where a decision will be made partly or entirely by an Automated Decision System.[361] Moreso, the administrative outcome should be communicated to the parties involved in the form of reasons.[362] Any decision of the RPD is accompanied by 'reasons' and sent to both the claimant (claimant's counsel where applicable) and the Minister notifying the parties of the decision and the reasons thereof. This requirement is replicated in the DADM under section 6.2.3 where it stipulates that clients should be provided with "a meaningful explanation" of how and why the decision was made. This presupposes an explanation as to functioning of the system used in arriving at the decision.[363]

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[359] Sara Blake, *Administrative Law in Canada,* 6th ed (Toronto: LexisNexis, 2017) at 154, as cited in Scassa, *supra* note 344. See also section 186.1 (4) of the IRPA, which addresses delegation as follows: "… a person who has been authorized by the Minister to do anything that may be done by the Minister under this Act, may do so using the electronic means that are made available or specified by the Minister."
[360] Scassa, *supra* note 344. See also s. 170 (c)of the IRPA, which provides that the RPD must notify the person who is the subject of the proceeding and the Minister of the hearing.
[361] DADM, *supra* note 3, cl 6.2.1.
[362] See s. 169 of the IRPA on decisions and reasons.
[363] DADM, *supra* note 3, Appendix C also requires that such explanation be published in a public website belonging to the particular department.

However, it is important to note that the duty of fairness in administrative law is tailored based on "the nature of the decision being made, the relationship between the administrative decision maker and the affected party, or the effect of the decision on the affected party's rights."[364] This makes it imperative that the duty of fairness be rightly imposed on automated decision systems because not only do majority of such decisions have an impact on the parties affected, the relationship between refugee claimants and an automated decision system is mostly unbalanced as many of such claimants may not possess the knowledge and skills to understand the intricacies of AI systems.

To address the principle of procedural fairness, to wit: impartiality, the DADM addresses the potential for algorithmic bias in many ways. It requires peer review of algorithmic decision-making processes that will have moderate to very high impacts on individuals, entities, communities, or ecosystems.[365] These are decisions whose impact falls between levels II and IV on the impact assessment levels as analyzed in Chapter Four and preceding sections of this Chapter. In addition to the peer review, the complete review or a summary thereof must be published on a Government of Canada website.[366]

Also, the DADM requires that all automated decisions be tested "for unintended biases and all factors that may unintentionally or unfairly impact the outcomes or violate human rights and freedoms".[367] The testing for bias applies to all decisions, regardless of their impact level. This is

[364] Kate Glover Berger, *supra* note 340 at 201.
[365] DADM, *supra* note 3, cl 6.3.7; Appendix C - Impact Level Requirements.
[366] DADM, *supra* note 3, Appendix C.
[367] *Ibid,* cl 6.3.1, Appendix C.

essential because even if a decision has little or no negative impact on the recipients, this does not automatically guarantee an absence of bias in the system. Therefore, IRB decisions for less complex claims, when generated by artificial intelligence tools, will be subject to this testing requirement. The fact that the decisions are positive will not remove this requirement to be tested for bias and other factors that may impact the outcome.[368]

Furthermore, the DADM provides for the regular and ongoing monitoring of ADS outcomes for decisions with all levels of impact, to check against any unplanned outcomes.[369] Machine learning was analyzed in Chapter Three of this thesis, along with its various types, ranging from supervised to unsupervised, to semi supervised, and reinforcement learning. One of the benefits of ML was highlighted as its capability to complete tasks on its own using the knowledge it has acquired over time. Therefore, it becomes essential that any decision made with ML be monitored on an ongoing basis to ensure that the machine doesn't malfunction over time and generate erroneous and contrary decisions as a result.

In machine learning, correctness is a statistical concept grounded in predictive accuracy, whereas bias is a relational concept concerning the distribution of errors across groups.[370] However, in legal decision-making contexts, both concepts must be reinterpreted through normative frameworks of fairness, equality, and procedural justice, and this reveals the limits of purely technical evaluations of algorithmic decision-making.[371] In machine learning, determining whether a decision is "right," "wrong," or "biased" depends on formal evaluation criteria,

[368] Ibid, Appendix C.
[369] *Ibid,* Appendix C.
[370] Tom M Mitchell, *Machine Learning* (McGraw-Hill 1997).
[371] Doshi-Velez & Kim, *supra* note 156.

statistical benchmarks, and normative (legal and ethical) standards. Such decisions may be assessed for accuracy, error analysis, and fairness (bias). In supervised machine learning, the model's prediction can be compared with a predefined ground truth label[372] to assess its accuracy.[373] This ongoing monitoring is particularly vital for detecting and addressing unexpected variations resulting from machine learning.

5.2.1 Trustworthiness and Transparency of AI Systems: Beyond Government Regulation

As Jennifer Raso rightly opined, AI systems are not lawless.[374] There are policies and conventions regulating this area of technology, some of which were analyzed earlier in this Chapter, for example, the DADM, AIDA, and Guidelines for secure AI systems development. Several efforts are being made to enhance the trustworthiness and transparency of AI, including the development of new safety and security standards for AI developers. And as Placani argues, imputing the human quality of trustworthiness upon AI systems may be erroneous because these systems do not simply operate in a vacuum as they are manufactured by developers, or organizations, and regulated by the government, all of which have their various interests to serve.[375]

Apart from state-based regulation, there are other forms of regulatory mechanisms guiding the development, operation, and utilization of artificial intelligence by administrative bodies in Canada. An example is the Anti-Racism Strategy 2.0.[376] Pillar 4 of this strategy addresses

[372] Which is the labelled outcome in a dataset.
[373] Doshi-Velez & Kim, *supra* note 156.
[374] Jennifer Raso, "Responsible AI: Binaries that bind" (2024) 69:4 McGill LJ 417.
[375] Placani, *supra* note 73.
[376] Immigration, Refugees and Citizenship Canada, "Anti-Racism Strategy 2.0 (2021 – 2024)" <https://www.canada.ca/content/dam/ircc/documents/pdf/english/corporate/anti-racism/anti-racism-strategy-2.pdf>.

systemic racism and bias in service delivery and calls for systemic racism audits of AI to ensure that AI systems do not perpetuate racism and bias by embedding historical racist data in them.[377]

Technologists are rapidly seeking to self-regulate the development and use of artificial intelligence technologies.[378] One of these is the "responsible AI" movement, which embodies some of these principles. The Responsible AI movement seeks to regulate the field of Artificial Intelligence, as well as the algorithmic tools developed for and used in the government's digital projects.[379] In doing so, the movement stipulates what responsibility looks like in terms of ethical principles and values.[380] The proponents of responsible AI may describe their initiatives as "ethical," whereas socio-legal scholars describe these initiatives as regulatory because to them, responsible AI initiatives seek to govern how AI systems are designed and used.[381] Raso opines that these initiatives are underexplored by legal scholars, who have instead focused on analyzing state-based regulatory efforts only.[382]

Many big tech companies, including Microsoft, Google, and consultancy firms like McKinsey, are behind this movement and have adopted policies reflecting the responsible AI movement.[383] "Canadian-based research hubs, such as Toronto's Vector Institute and Montréal's MILA," have worked closely with tech developers and academics to generate their own statements of

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[377] *Ibid.*
[378] Jonathan Roberge, Marius Senneville & Kevin Morin, "How to Translate Artificial Intelligence? Myths and Justifications in Public Discourse" (2020) 7:1 Big Data & Society 1.
[379] Raso, "Responsible AI: Binaries that bind" *supra* note 374.
[380] *Ibid.*
[381] *Ibid.*
[382] *Ibid.*
[383] McKinsey & Company, "Responsible AI (RAI) Principles" (12 September 2024), online: [perma.cc/FT3N-CC6S].

principles enunciating what responsible AI entails.[384] Governments sometimes refer to these sources to guide their own regulatory efforts and have released statements that resemble the principles of other actors in the responsible AI movement.[385]

The Responsible AI movement embodies similar but distinct initiatives, including "trustworthy" AI, "ethical" AI, and "fair, accountable, and transparent" AI.[386] These initiatives are founded upon foundational principles such as transparency, accountability, and responsibility, with the end goal of making these systems trustworthy by mitigating potential risks, including the risk of generating conflicting results.[387] This is achievable because if the developers of such AI systems adhere to the principles listed above, it will go a long way to making these systems trustworthy in line with Placani's submission. And if AI systems become more reliable, this will generally increase their use.

Interestingly, Raso argues that it would be incorrect to view the initiatives of the responsible AI movement as merely private, because many of these companies are beneficiaries of government grants, tax breaks, and other forms of public funding.[388] She further argues that Responsible AI regulatory strategies also have elements of public law principles. For example, the principle of transparency in the responsible AI movement is essentially the public law principles of notice or access to information. Similarly, explainable decision-making can be found in the public law principle of justifiable reasons for each decision.[389]

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[384] Raso, "Responsible AI: Binaries that bind" *supra* note 374.
[385] See, for example, Canada's "Responsible Use of Artificial Intelligence in Government" (last modified 1 August 2024), online: [perma.cc/3XFJ-GYWF], as cited in Raso, *supra* note 374.
[386] Raso, "Responsible AI: Binaries that bind" *supra* note 374.
[387] *Ibid.*
[388] Raso, "Responsible AI: Binaries that bind" *supra* note 374.
[389] *Ibid.*

5.2.2 The Montréal Declaration for a Responsible Development of Artificial Intelligence

After two years of active consultations with actors across the public and private sectors, including technologists, policymakers, and citizens, as well as philosophers, sociologists, jurists, and AI researchers, a declaration emerged known as the Montréal Declaration."[390] The Declaration was released in December 2018. The Montréal Declaration embodies ethical principles to guide designers and users of AI systems in line with the law. The Declaration aims to "develop an ethical framework for the development and deployment of AI," to "guide the digital transition so everyone benefits from this technological revolution," and to "open a national and international forum for discussion" to achieve responsible AI.[391] The Declaration outlines ten principles, namely: "well-being, respect for autonomy, protection of privacy and intimacy, solidarity, democratic participation, equity, diversity and inclusion, prudence, responsibility, and sustainable development."[392] These principles are intended to guide the future development and use of AI systems. However, they have been criticized for being too broad and generalized, as they fail to address AI specifically.[393]

The Declaration suggests the expectation of collaboration between human and AI systems. Under the solidarity principle, the Declaration states that AI systems "must be developed with the goal of collaborating with humans on complex tasks and should foster collaborative work

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[390] Yoshua Bengio, "The Montréal Declaration: Why we must develop AI responsibly", *The Conversation* (5 December 2018), online: <theconversation.com/themontreal-declaration-why-we-must-develop-ai-responsibly-108154> [perma.cc/S9TSX543]).
[391] "Montréal Declaration for a Responsible Development of Artificial Intelligence" (2018), online: <montrealdeclaration-responsibleai.com/the-declaration/> [perma.cc/E4JC-9UJ3].
[392] *Ibid.*
[393] Raso, "Responsible AI: Binaries that bind" *supra* note 374.

between humans."[394] This is in line with the DADM requirement of ensuring human involvement with ADS for high impact level decisions, particularly for level III and IV decisions.[395]

As rightly pointed out by Raso, many of the Montréal Declaration's principles reflect concepts of public law. For example, under the principle of democratic participation, the Declaration proposes that "AI system-generated decisions must be justifiable rather than merely explainable."[396] This principle requires that the "most important factors and parameters" that shaped a decision should be communicated to the affected parties.[397] Furthermore, "the code for decision-making algorithms used by public authorities must be accessible to all," except where it is highly risky to release the same to the public.[398] The Declaration also requires that the individuals affected by the ADS be equipped with the skills necessary to help them understand the decisions.[399]

In general, the DADM echoes many principles under the Montreal Declaration as discussed in the foregoing sections of this thesis. For example, the principle of disclosing the parameters for the decision resonates with the requirement of providing meaningful explanations as to the role of the system used, the criteria for data evaluation, and the main factors behind the decision, among others, as contained in Appendix C of the Directive.

5.2.3 IRCC Artificial Intelligence Strategy

[394] Montréal Declaration*, supra* note 391 at 11.
[395] DADM, *supra* note 3, Appendix C – Impact Level Requirements.
[396] Raso, "Responsible AI: Binaries that bind" *supra* note 374 at 428.
[397] Montréal Declaration*, supra* note 391 at 12.
[398] *Ibid.*
[399] *Ibid*.

The IRCC has very recently, in February 2026, released its strategy on AI use by the government department.[400] The IRCC AI Strategy, while acknowledging the benefits of using AI, emphasizes that AI must be accountable, transparent, and anti-racist to avoid harm to vulnerable populations.[401] The document outlines an AI adoption framework that confirms AI will be used for everyday administrative tasks that are not part of the decision-making process. In terms of tasks to be completed using AI, the document lists such tasks as triaging applications, creating summaries, producing documents, and responding to client enquiries. AI tools will also inform decision makers of any anomalies in files, or detect matching data, flag low risk straightforward files to the officers for quick determination and disposal.

In all these, the IRCC AI Strategy maintains that "tools do not refuse or recommend refusing any applications."[402] This validates my position in this research that, even for the IRB, the board should not use AI tools to render a negative decision. All negative decisions must result from a hearing before a human decision maker. This also ensures that IRCC's use of AI tools in its processes remains at a low impact level in line with the DADM specifications.

It is interesting to note, however, that some immigration lawyers have blamed the increase in litigation in federal court with respect to visa refusals on IRCC's use of AI tools in its visa

[400] Government of Canada, Immigration, Refugees and Citizenship Canada Artificial Intelligence Strategy, modified 2026-03-12. <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/artificial-intelligence-strategy.html>.
[401] *Ibid.*
[402] *Ibid.*

processing.[403] This has been rebutted by others who attribute the increase in litigation to a rise in visa applications.[404]

In the AI Strategy document, IRCC identified five AI principles that are at the core of its Strategy and will guide its implementation. The principles are as follows: human-centered and accountable, transparent and explainable, fair and equitable, secure and privacy-protecting, and valid and reliable.[405]

The AI Strategy also includes an AI Charter that outlines 10 rules explaining what IRCC will and will not do with AI. The IRCC pledges to use AI in ways that will "contribute to the public good, put people first, respect privacy, promote equity, offer transparency, produce reliable results, ensure accountability, remain secure, align with best practices, and continuously improve."[406] The IRCC pledges to ensure that its AI use is overseen by humans, adding that its AI systems do not run autonomously and emphasizing that its AI systems are regularly audited, tested, and updated to ensure reliable and authentic results. These guardrails and many more are all similarly proposed for the IRB and are analyzed in Chapter Six of this thesis.

5.3 Challenges in making AI systems accountable

[403] David Baxter, "Immigration lawyers say automation is partly driving a massive Federal Court backlog", Canadian Press (May 30 2026) <https://www.thestar.com/politics/federal/immigration-lawyers-say-automation-is-partly-driving-a-massive-federal-court-backlog/article_3bdb1d72-9a57-5a31-84e5-1770e5a89829.html>.
[404] *Ibid.*
[405] Government of Canada, Immigration, Refugees and Citizenship Canada Artificial Intelligence Strategy, *supra* note 400.
[406] *Ibid*.

As Molnar argues, AI systems lack accountability.[407] While reliance on AI and algorithmic systems grows, understanding the rate of their adoption in public practice remains a significant challenge.[408] As Daly and Orct rightly suggest, this complexity arises from two critical issues: first, technology is constantly evolving, introducing advancements that can render older systems obsolete.[409] Second, there is a lack of regulatory frameworks that compel government entities to disclose their use of such technologies in a transparent manner.[410] Though the DADM addresses this issue by requiring government institutions to disclose their use of ADS, however it is limited by the fact that this requirement is applicable for systems in use from April 1 2020. This limitation has been examined in more detail in an earlier section of this chapter.

The first issue highlights the rapid turnover of technological advancements, where newer solutions are often better suited for contemporary demands than their predecessors. However, the second issue presents an even greater obstacle which is tracking the evolution of algorithm adoption by public institutions, particularly in Canada.[411] While some departments disclose their use of algorithmic systems, the absence of an obligation for government agencies to publicly share or compile their use of algorithms hinders assessment and prevents the public from understanding the impact and reach of these increasingly ubiquitous technologies. To truly grasp how deeply integrated AI and algorithms have become in our governance structures, we must advocate for greater transparency and accountability in their adoption and use.[412]

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[407] Molnar, "AI in Border Control and Migration", *supra* note 93.
[408] Daly & Orct, *supra* note 292.
[409] *Ibid.*
[410] *Ibid.*
[411] *Ibid.*
[412] *Ibid.*

A notable aspect of Canadian accountability mechanisms is the absence of specific hard law requirements governing the use of AI and algorithmic systems. While there are soft law instruments like the DADM and Guidelines for secure AI development, as well as hard law requirements from privacy statutes that indirectly impact AI and algorithmic systems, there is no direct regulation of AI and algorithmic systems by statute. However, this deficiency may be cured if AIDA is subsequently revived and passed by the Parliament.

5.4 Ensuring that AI tools meet principles of transparency and public trust

Adriana Placani, in her article, used hype and moral fallacy as frames to assess the propriety of attributing human traits to AI systems, and she concludes that attributing such human qualities may result in the erroneous conclusion that AI systems are trustworthy.[413] For her, this conclusion is often short-sighted as it fails to take into consideration other external factors that may influence the trustworthiness of AI systems.[414] In instances where decisions affecting the public are made using automated systems, such an administrative body must ensure the responsible and ethical use of these systems. This includes ensuring that decisions produced by these systems are efficient, accountable, unbiased, and transparent, with clear disclosure regarding the use of these systems, as well as ongoing risk assessment and management.[415] Programmers must provide a description of the data used to train and test the system. They must include details about the types of personal information being utilized and the sources from which it was collected. The relevant public body must provide a link to the de-identified training and

[413] Placani, *supra* note 73.
[414] *Ibid.*
[415] DADM, *supra* note 3.

test data if it is publicly available, allowing users to understand the basis on which decisions are made.[416]

To make these AI systems reliable, they must undergo rigorous testing. These systems, along with their "training and test data, [must not only] be fit for purpose [but also thoroughly assessed] for relevance, accuracy, and [any] unintended data biases."[417] By doing so, we can ensure that outcomes are fair and equitable, promoting trust and integrity in technology. Additionally, periodic monitoring of the processes and decisions of an automated system is necessary to ensure compliance with the law, thereby preventing unintended consequences.[418] Public bodies can build confidence and trust in the quality of automated decisions by ensuring that systems undergo periodic review, testing, and monitoring, while also providing necessary training for administrators.[419]

Furthermore, all automated decision systems should be subject to risk assessments. Those systems identified as posing a significant risk must "undergo peer review by several independent, well-positioned experts from independent oversight bodies, government ministries or agencies, academia, or NGOs with the relevant capacity and expertise" before their implementation and integration.[420]

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[416] McLead-McKay, McEvoy & Chalke, *supra* note 291.
[417] *Ibid* at 37.
[418] *Ibid.*
[419] *Ibid*.
[420] *Ibid* at 36.

For automated decision-making to comply with principles of fairness, developers must design AI systems whose processes can be reviewed and validated.[421] Organizations that employ closed-source, proprietary systems should monitor the functioning of their automated systems and continuously audit automated decisions to address the lack of algorithmic transparency in such systems.[422] Thus, individuals impacted by automated decisions will have a comprehensive picture of the decision and how it was reached, and may be able to appeal against them where necessary.[423] Additionally, where an aggrieved party appeals against the automated decision, the appellate body is better positioned to review such decision if the ADS processes in arriving at that decision can be examined.[424] Overall, ensuring transparency, trust, and accountability in automated systems must become the standard practice.

5.5 Strengthening human oversight and appeal mechanisms to mitigate errors

A recurring theme in the literature is the need for oversight. Several scholars have advocated for oversight mechanisms, such as a dedicated public sector watchdog to monitor the use of AI in public administration, including administrative tribunals.[425]

The decision in *Haghshenas v Canada (Citizenship and Immigration)*,[426] is very instructive here. In that case, the court considered the legality of using an AI system (Chinook) in writing a decision. Chinook is a Microsoft Excel-based tool developed by IRCC for temporary resident application processing. It is designed to "simplify the visual representation of a client's

[421] McLead-McKay, McEvoy & Chalke, *supra* note 291 at 38.
[422] *Ibid.*
[423] *Ibid.*
[424] *Ibid.*
[425] Daly, "AI and Administrative Tribunals", *supra* note 25.
[426] 2023 FC 464.

information as stored in the Global Case Management System (GCMS)."[427] The IRCC maintains that Chinook is not equipped with any inbuilt decision-making algorithms and does not utilize artificial intelligence.[428] The court held that using an AI system to draft a negative decision did not render that decision unreasonable nor did it violate procedural fairness. The court stated that the responsibility of a "Court on judicial review is to look at the record and the Decision and determine its reasonableness in accordance with *Vavilov*."[429] Thus, what determines whether a decision is upheld or set aside is whether the decision is reasonable or unreasonable, and not if artificial intelligence was used or not. Holding "otherwise would elevate process over substance."[430]

This is important to note because one cannot generalize to say that decisions are unreasonable solely because they were arrived at through the process of machine learning or other automation processes. This buttresses the importance of traditional administrative law doctrines even in the midst of automated administrative decision making.

Similarly, the Directive on Automated Decision-Making (DADM) acknowledges the importance of human oversight when a public administrative body utilizes automated decision-making systems. This is to ensure a balance between human and machine in the decision-making process. However, it is not in all instances of automated decision making that human involvement must be required. This largely depends on the impact level of the decision as

[427] Government of Canada, CIMM Chinook Development and Implementation in Decision-Making, February 15 & 17, 2022. <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/committees/cimm-feb-15-17-2022/ chinook-development-implementation-decision-making.html>.
[428] *Ibid.*
[429] *Haghshenas v Canada (Citizenship and Immigration) supra.*
[430] *Ibid.*

stipulated under Appendix B of the DADM. The DADM specifies five areas of impact, namely: "the rights of individuals or communities; the equality, dignity, privacy, and autonomy of individuals; the health or well-being of individuals or communities; the economic interests of individuals, entities, or communities; and the ongoing sustainability of an ecosystem."[431] This aspect of this research has been thoroughly analyzed in Chapters 4 and 5 of this thesis.

In summary, human involvement becomes a mandatory requirement for decisions with impact assessment levels III and IV, which are decisions with 'high' and 'very high' impacts, respectively. IRB decisions fall within impact levels III and IV because these decisions on refugee applications often have life changing effects on the recipients (i.e. refugee claimants). However, for the purposes of the thesis, the decisions recommended to be automated are positive decisions on less complex claims, which have only positive impact on the claimants and, as such, reduce the impact level to levels I or II. Since it is the case that the positive decisions recommended for automating fall within impact levels I or II, it is important to note that the human oversight anticipated here is minimal and will include systemic oversights such as using audit trails to trace decision points in such paper positive decisions, and labelling.[432]

The requirement of human intervention in any automated decision-making process presupposes that this intervention starts from the beginning of the decision-making process and continues throughout the entire process.[433]

[431] DADM, *supra* note 3, Appendix B - Impact Assessment Levels.
[432] McLead-McKay, McEvoy & Chalke, *supra* note 291.
[433] Daly, "AI and Administrative Tribunals", *supra* note 25.

Finally, it is important to note that the DADM requirement for human intervention in impact assessment levels III and IV decisions does not preclude parties from challenging such decisions.[434] The DADM stipulates that parties be provided with options to challenge the decisions.[435] In the case of less complex claims, though a claimant does not have the opportunity to challenge a decision streaming out their claim from paper review to regular or short hearing, nevertheless, the absence of such right to challenge that decision doesn't harm the claimant. This is because the claimant either ends up with a paper positive decision or they are given the opportunity to appear at a hearing and answer to their claim.

5.6 Recent Developments

In the course of conducting this research and writing the thesis, there have been policy changes and updates here and there regarding the use of artificial intelligence in immigration processes. Some of these new developments include the 2026 IRCC AI Strategy, discussed above, and the recent Bill C-12, which is discussed briefly below.

However, events, policies and developments occurring after March 2026 are not discussed in this project.

Among other developments is the AI Strategy Taskforce announced on September 26, 2025, by the Minister of Artificial Intelligence and Digital Innovation.[436] The aim of the Taskforce was to develop a renewed AI Strategy for Canada that would secure its position as a global leader in

[434] *Ibid.*
[435] DADM, *supra* note 3, cl 6.4.
[436] Innovation, Science and Economic Development Canada, "AI Strategy Taskforce" (October 20, 2025) <https://ised-isde.canada.ca/site/advisory-council-artificial-intelligence/en/ai-strategy-taskforce>.

responsible and secure AI deployment. The Taskforce conducted a 30-day public consultation on AI referred to as a 'National Sprint on AI' in October 2025.[437] The national sprint encouraged Canadians to submit their perspectives and ideas to the government on the issue of AI.[438] The national sprint was criticized for being rushed, industry focused and lacking sufficient participation from civil society groups. These criticisms birthed the People's Consultation on AI, which is a "civil society initiative" aimed at gathering the opinions and experiences of individuals, "to inform a national strategy on AI."[439] The consultations ran from January 2026 to March 23, 2026.[440]

Also, individuals and organizations have continued to make comments on Canada's plans and policies on reducing immigration levels. For example, the Canadian Bar Association (CBA) in its submissions on the 2025 immigration levels expresses concerns over Canada's plans to reduce immigration levels between 2026-2028.[441] The CBA notes that such unmonitored reductions will exacerbate backlogs and increase administrative and judicial reviews at the Federal Court. The CBA also argues that these immigration reduction plans will adversely impact access to justice.[442]

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[437] *Ibid.*
[438] Government of Canada, "Government of Canada launches AI Strategy Task Force and public engagement on the development of the next AI strategy" (September 26, 2025) <https://www.canada.ca/en/innovation-science-economic-development/news/2025/09/government-of-canada-launches-ai-strategy-task-force-and-public-engagement-on-the-development-of-the-next-ai-strategy.html>.
[439] Peoples Consultation on AI (March 2026) <https://www.peoplesaiconsultation.ca/>.
[440] *Ibid.*
[441] Canadian Bar Association, "Immigration levels and the Impact on the Administration of Justice". (October 9, 2025) <https://www.cba.org/our-impact/submissions/immigration-levels-and-impacts-on-the-administration-of-justice/>.
[442] *Ibid.*

5.7 The Implications of Bill C-12

Bill C-12, Strengthening Canada's Immigration System and Borders Act, was signed into Law on March 26, 2026.[443] With respect to immigration, the Bill aims to reduce pressure on the asylum system, prevent sudden surges in the number of refugee claims, and ensure that the refugee system is not used merely as a pathway to permanent residence.[444] The Bill specifically amended subsection 101(1) of the Immigration and Refugee Protection Act (IRPA) so that claims made on or after June 3, 2025, must not have been initiated more than 1 year after the asylum seeker first landed in Canada after June 24, 2020. Also, claims made more than 14 days after a person crossed the Canada-US land border to enter Canada will no longer be referred to the RPD.[445]

One might argue that this Bill will help reduce the backlog of refugee claims. This seeming benefit notwithstanding, I continue to argue that automating certain processes of refugee claims adjudication remains a worthwhile venture for the IRB and a call the IRB may not be able to ignore for long.

5.8 The IRB Working Group on AI

The IRB Working Group was set up in fiscal year 2025-2026 to provide perspective on the implications of AI use by the board.[446] In summary, the IRB Chairperson has reiterated the Board's resolve not to use artificial intelligence technology in its adjudicative decision

[443] Bill C-12, *supra* note 239.
[444] *Ibid.*
[445] *Ibid.*
[446] Immigration and Refugee Board of Canada, "Immigration and Refugee Board of Canada's 2026 to 2027 Departmental Plan" (2026-03-13). <https://irb-cisr.gc.ca/en/reports-publications/planning-performance/Pages/departmental-plan-report-2627.aspx>.

making.[447] However, the IRB Working Group will continue to "identify opportunities for the smart and safe use of technology" in its non-adjudicative functions.[448]

This buttresses IRB's cautious approach to adopting artificial intelligence tools in its processes. This positioning further validates the significance of this research which highlights the areas where AI can enhance efficiency in the tribunal's processes. This research has also proactively analyzed the risks that may result from using AI and the guardrails thereto. Most importantly, Chapter 6 of this thesis makes a detailed proposal on how the IRB can go about adopting AI tools when it decides to.

[447] *Ibid.*
[448] *Ibid.*

CHAPTER SIX

CONCLUSION, RECOMMENDATIONS, AND FUTURE RESEARCH

6.1 Policy and Legislative Recommendations and Proposed Reforms for the IRB

This thesis recommends that the Immigration and Refugee Board of Canada incorporate artificial intelligence tools into its administrative processes for triaging claims, assigning claims to Members, and streaming claims under the less complex claims initiative. It is also argued that claims under the file review process should be determined using artificial intelligence tools with minimal human oversight to promote the faster disposition of simple and straightforward refugee claims where no serious credibility, identity, exclusion, or other issues are identified.

Some significant benefits of adopting AI at the Immigration and Refugee Board include improving efficiency, reducing costs, and enhancing the effectiveness of the entire refugee determination process. AI technologies have the potential to "streamline service delivery, cut costs for routine and straightforward decision making, and make other decision-making processes more efficient."[449]

Administrative agencies, whether operated by humans or AI, use algorithmic tools in one way or another. As Raso points out, AI's algorithmic tools would include software, hardware, and databases, and on the human side, "developers, civil servants, members of the public, and the institutions in whose name decisions are rendered."[450] The point here is that humans and AI both rely on some form of algorithm to make their decisions. For example, adjudicative claims

[449] Scassa, *supra* note 344 at 2.
[450] Raso, "Responsible AI: Binaries that bind", *supra* note 374 at 422.

officers rely on grant rates as a form of algorithm[451] to determine whether particular countries/claim types are suitable for streaming to file review.

What needs to be done in terms of legislative and policy framework is to make some necessary legislative or policy updates with clear details authorizing and regulating the use of AI in refugee claims determination and ensuring alignment with both national and international human rights obligations. Some policy recommendations are made here, as well as proposed reforms for integrating AI into the Immigration and Refugee Board of Canada.

It is recommended that the IRB should automate some of its processes, as has been highlighted and analyzed in previous Chapters of this work. These processes include administrative processes of triaging refugee claims, assigning files to Members, streaming less complex claims, and deciding positive claims under the file review process.

Streaming claims and deciding paper review claims using Machine learning

The triaging of claims and assigning files to Members can be automated by using simple automation methods that utilize categorical data collected directly from applicants to distribute claims into appropriate categories. The forms will include drop-down menus for the type of claim, country, gender, and other relevant categories, to standardize the data into categorical forms. This was discussed in detail in Chapter 4 above.

[451] See section 4.2.1 in Chapter 4 of this thesis.

As discussed in Chapter 3 of this thesis, AI can be categorized according to different algorithm types. There are about five types of machine learning algorithms on the one hand, and several other algorithms on the other hand. The AI tool described in this proposal for the IRB fits into the category of evolutionary algorithms. Evolutionary algorithms may be adopted by the IRB for the scheduling and assigning of claims to Members. Due to the benefits associated with randomized algorithms as described earlier, AI tools that function on randomized algorithms may be utilized to ensure a random distribution of files to decision makers to minimize the risk of confirmation bias,[452] as discussed in Chapter Four of this thesis.

Additionally, AI can be employed to extract features from the basis of claims, apply those features to a model, and predict the appropriate category. Here, machine learning algorithms can be used to extract features from the BOC, apply those to a model, and predict the appropriate stream. As discussed earlier in Chapter three, machine learning algorithms have the ability to improve themselves over time from trends and patterns in the data, thus may be a good fit for streaming less complex claims and finalizing positive less complex claims. However, due to the functioning of ML algorithms as discussed earlier, the following risks can be anticipated: they can reinforce existing patterns of discrimination embedded in the training data, otherwise known as algorithmic bias; the possibility of ML malfunctioning and producing unintended outcomes; and algorithmic opacity, among others. Several authors have highlighted algorithmic bias and opacity as shortcomings of AI systems.[453] Because the kinds of algorithms envisaged involve predicting current outputs based on past data, there is the question of how the system would be

[452] Daly, "AI and Administrative Tribunals", *supra* note 25.
[453] Byrne et al, *supra* note 98; Cameron et al, *supra* note 47; Scassa, "Supreme Court of Canada Decisions" *supra* note 96; Reyes, *supra* note 55; Raso, "AI and Administrative law" *supra* note 12.

able to respond to current developments. This is usually the case when and where there is a change in country conditions (positive or negative), there arises a risk that decisions may be based on old conditions. There are a few options to tackling this potential problem. The system programming could be updated from time to time to account for any new changes in country conditions. This may be likened to reprogramming a computer system. Where this is not feasible, the system would involve lags in this area of current developments, and this then becomes another area where human oversight comes in. The IRB has a Research directorate and Legal unit which advises Members on updates in country conditions, new laws and case law. As soon as these units advise on changes to the law or country conditions, the team assigned with overseeing the automated positive decisions will swing in to update the changes on the automated system to ensure that the outcomes remain justified.

Due to these risks, as noted in Chapters Four and Five of the thesis, where AI in the machine learning category is deployed in streaming less complex claims and finalizing such claims under the file review process, various rules apply. Thus, these AI tools will be subject to the rules outlined in various soft laws and proposed legislation discussed in the previous chapter, including the Directive on Automated Decision-making, the proposed Artificial Intelligence and Data Act, and the Montreal Declaration, among others. The provisions of these instruments have specified various mechanisms to be adopted to mitigate the risk of bias and other risks associated with using AI tools in automated administrative decision making. These include requirements such as auditing and monitoring of AI tools used to render decisions or handle administrative tasks, disclosing de-identified training and test data to those affected by the decisions, peer

review of AI systems by experts, testing data for bias, among others.[454] The IRB, in adopting AI tools, will adhere to the various applicable provisions contained in these instruments and the proposed AIDA.

To address these risks of algorithmic bias and unintended outcomes, this thesis proposes that the IRB should use supervised machine learning in finalizing positive less complex claims. And as explained earlier, supervised ML envisages human intervention as the initial data is labelled with essential features from the beginning, thereby making it possible to predict the output. More so, it is important to reiterate that the AI models proposed in this thesis are not the generative AI models as these have been shown to have peculiar risks and inaccuracies embedded in them, especially when used for tasks requiring specific knowledge and skills. Thus, this thesis proposes that the IRB should develop open-source domain-specific AI tools to suit the needs and intricacies of refugee applications.[455] This will enable better peer scrutiny and improvement of such AI systems.

The proposition that the IRB should develop open-source, domain-specific AI tools may appear to conflict with the reality that refugee decision making relies on highly sensitive and confidential data. However, what this proposal intends is to ensure that the algorithmic logic, model design, and documentation behind such AI tools are made publicly available, which allows it to be inspected, audited, and improved.[456] The training datasets, case files, and personal information must remain restricted due to privacy and protection concerns. While making

[454] DADM, *supra* note 3, Appendix C.
[455] Dahan et al, *supra* note 76.
[456] Sara Landset et al, "A survey of open source tools for machine learning with big data in the Hadoop ecosystem" (2015) 2:1 J Big Data 24.

algorithmic logic and documentation publicly available enhances transparency at the level of system design, such openness is necessarily limited in the absence of access to training and evaluation data. Many of the most significant risks in machine learning systems, particularly bias, are embedded in the data rather than the code. As a result, open-source approaches in refugee decision-making risk producing only partial transparency unless supplemented by structured disclosures, independent audits, and privacy preserving access mechanisms. Thus, the bottom line is a layered transparency involving open code, restricted data, and oversight mechanisms.

The time is here indeed. The IRB should no longer continue to shy away from this call. In preparation to automate the triaging of refugee claims, assigning files to Members, streaming less complex claims, and deciding positive claims under the file review process, the IRB can do the following:

The Board can implement the integration of artificial intelligence tools into its processes by initiating pilot Programs and dividing them into different phases of implementation. The outcome from the pilot projects can be used to refine AI technologies, policies, and procedures, repeatedly until a standard is achieved.

In the first phase, a thorough assessment will be conducted to evaluate the processes and identify areas suitable for automation, such as claims intake, file triaging, scheduling and assigning files, streaming claims, and the file review process. During this stage, the objectives for automation will be defined, for example, reducing processing times and increasing efficiency. Various

stakeholders will be consulted during this initial phase, including Members, adjudicative case officers, administrative staff, and legal practitioners representing refugee claimants, community organizations working with such claimants, and the claimants themselves. Most importantly, an algorithmic impact assessment (AIA) should be conducted at this stage to address potential ethical, privacy, and other human rights considerations.

The second phase of the Pilot programs should initially target specific, clearly defined processes that carry lower risk, such as preliminary assessments or administrative tasks, including claims intake, triaging files, scheduling, and assigning files to members. At this stage, simple automation methods discussed in the previous chapters will be employed to handle these processes. The second phase of the pilot programs would involve the technical development stage, where these AI models will be designed and customized, including training datasets derived from past IRB claims. Additionally, this is the stage for developing Guidelines to regulate IRB's automation processes. The Guidelines referred to here will be similar to the IRB's Chairperson's Guidelines enacted to address various procedural issues regarding the adjudication of refugee claims. Other legal frameworks should be adopted to ensure compliance with administrative procedural fairness, accountability, transparency, and other relevant regulations. More so, oversight mechanisms should be established at this stage. Section 159 (h) of the Immigration and Refugee Protection Act provides that the IRB Chairperson "may issue guidelines in writing to members of the Board and identify decisions of the Board as jurisprudential guides, after consulting with the Deputy Chairpersons, to assist members in carrying out their duties".[457] Thus, under this authority, the Chairperson can develop clear and

[457] IRPA, s 159 (h).

transparent Guidelines that will be publicly available, outlining how AI tools will be used, including their purpose, the specific stages of the refugee determination process where the tools will be utilized, their scope of application, and their limitations. The Board should ensure that the guidelines clearly state that AI serves as decision support rather than decision-making, reinforcing human oversight and accountability.

The third phase of the pilot programs will involve small scale, controlled deployment of selected pilots in a limited number of IRB offices or regions to test AI systems in real world settings. At this stage the project starts off small with constant monitoring and analysis of the AI systems for accuracy, processing times, effectiveness, efficiency, fairness, and especially bias detection among other issues.

The automation of streaming less complex claims and deciding claims under the file review process will be undertaken as a project at a later phase of implementation, with Guidelines clearly spelled out for this. Also, oversight mechanisms should be established and human-in-the-loop provisions made for this pilot.

The fourth phase of the pilot program will involve evaluating and refining the processes. In this phase, the pilot outcomes will be assessed against the initial objectives. There should be a quantitative analysis that includes a statistical evaluation of automation performance versus baseline data to measure processing times, consistency, and error rates, if any. Additionally, qualitative analysis can be conducted through stakeholder feedback on factors such as transparency, trust, fairness, and user experience, among others. A series of refinements should

be ongoing during this phase to address gaps, adjust algorithms, retrain models, and resolve issues identified during initial testing. The outcome of this phase should be comprehensive reports detailing findings, adjustments, and validated models ready for broader implementation.

The fifth phase is the expansion phase, where automation is expanded carefully and incrementally. This would include a gradual rollout to IRB offices nationwide. Ongoing training should be provided to administrative staff and adjudicators to facilitate the smooth integration of automation tools into their workflow. There should be continuous performance monitoring frameworks, transparency mechanisms, and human oversight structures to ensure accountability.

The IRB can prioritize fairness and mitigate traces of bias by adopting robust fairness metrics. Such metrics would include measuring whether the distribution of outcomes align with the expected peculiarities of a claim. For example, by examining how claims that qualify for file review are distributed. The approval rate for claimants of a particular nationality can be compared to the overall approval rates under the less complex claims category. Another metric may measure how many less complex claims initially streamed to file review were subsequently placed back in short hearing or regular hearing. The IRB already has a Quality Assurance Framework for Quality Decision-Making, which monitors and measures all processes and strategies put in place to ensure quality decision-making and adjusts the action plan accordingly.[458] Thus, the IRB can establish a quality assurance framework embodying metrics to measure fairness in AI systems adopted by the tribunal.

[458] Immigration and Refugee Board, *Quality Assurance Framework for Decision-Making* (2023): <https://www.irb-cisr.gc.ca/en/transparency/qa-aq/Pages/qaf-caq.aspx>.

Also, data adjustments can be made to reduce bias, and retraining AI models can help minimize bias. Data adjustments involve modifying existing data to create new examples or variations for training machine learning models. This process is essential for improving model performance, addressing overfitting of data, and boosting generalization.[459] Data adjustments enable models to better generalize and adapt to real world conditions, making them produce results that are accurate and reliable.[460]

The algorithms must be transparent and explainable, allowing adjudicators and claimants to understand the basis of recommendations or risk assessments provided by the AI. This is in line with the requirements in the DADM and proposed AIDA as discussed in Chapter 5.

There must be continuous training programs and capacity building for adjudicators, adjudicative case officers, case workers, and the legal unit on interpreting AI generated insights, understanding their limitations, and appropriately integrating them into decision-making processes. The training envisaged here includes technical training on automated systems to teach their functionalities, workflow integration, and how to interpret automated decisions and outcomes. This will ensure effective interaction with AI tools, data entry procedures, quality assurance, and data validation. Adjudicative officers and members should be trained to understand algorithmic bias, including its sources, types, and implications, in order to help them identify and recognize any disparities in outcomes. These trainings will equip them with techniques for identifying bias using fairness metrics and emphasizing the importance of human

[459] Sustainability Directory, "Data Adjustment" 13 April 2025. <https://climate.sustainabilitydirectory.com/term/data-adjustment/>.
[460] *Ibid.*

oversight in these automation processes. This training can take the form of interactive workshops, scenario-based learning, E-Learning modules, or regular webinars and seminars for ongoing updates and discussions of emerging issues.

Disciplinary collaboration should be encouraged with AI ethics experts, data scientists, legal professionals, and refugee advocacy organizations. The Immigration and Refugee Board should involve these industry experts in the pilot programs to obtain their professional input on various aspects of the automation drive.

Furthermore, in accordance with the DADM, the AIDA provisions, and the IRCC AI Strategy discussed in Chapter Five, the IRB should implement regular audits and independent oversight over its AI systems.[461] There should be mechanisms in place for periodic independent reviews by third-party experts. An independent oversight body should be established to regularly review the performance, accuracy, fairness, and compliance of AI systems used in refugee claims processing. This body could be composed of industry experts, e.g., computer scientists, data ethicists, selected IRB officials, representatives from refugee advocacy organizations, researchers, and experts in administrative law, fairness, and transparency. This independent oversight body could be publicly funded or receive partial funding from IRB budgets specifically earmarked as oversight fees.

To effectively perform its oversight functions, the oversight body should have investigative powers. This is the authority to access IRB data, algorithms, training materials, and decision

[461] DADM, *supra* note 3 cl 6.

logs. The body should have the power to request a retraining of algorithms or modification of data processing practices. It should have the authority to issue binding recommendations regarding adjustments or discontinuation of specific automated systems. This independent oversight body should have the power to mandate the IRB to disclose specific AI performance data and reports publicly. It should also be able to exercise advisory and approval powers over major updates to the automated refugee claim system before full implementation. Moreover, the authority to issue ethical guidelines for the deployment of AI in refugee claims processing should reside in this body. Most importantly, measures must be put in place to ensure data privacy and protection for refugee claimants even as this independent oversight body performs their functions.

Most importantly, humans should remain involved as an oversight mechanism in the streaming of claims and deciding them under file review. For refugee claims that will be determined under the automated file review process, it is imperative that human oversight and accountability be strengthened. The principle of human-in-the-loop systems should be reinforced for such less complex claims even though the outcome would generally have a low impact on the claimants. The board should ensure that adjudicators retain ultimate responsibility for negative decisions and possess sufficient autonomy to override AI generated recommendations where necessary. There must be a clear document specifying where human adjudicators can diverge from AI recommendations, ensuring transparency and accountability. This is also in line with the recent IRCC AI Strategy under its 5 guiding principles.[462]

[462] IRCC AI Strategy, *supra* note 400.

The IRB must provide adequate resources to claimants and their legal representatives to help them understand how AI would influence their claims, ensuring transparency and procedural fairness. These could take the form of disclosures in written texts disclosed to claimants regarding the type of AI tools utilized, the various processes affected, and insight into the automated file review process. General Information regarding its use of AI tools should be disclosed on the IRB's website to ensure further transparency and keep refugee claimants and their legal representatives properly informed and updated.

By implementing these recommendations, the Immigration and Refugee Board of Canada can responsibly leverage artificial intelligence, enhancing fairness, efficiency, transparency, and accountability of refugee determination processes.

6.2 Summary of Findings

The integration of artificial intelligence into the Immigration and Refugee Board's processes for determining refugee claims in Canada presents substantial opportunities along with some potential challenges. This thesis highlights that AI can significantly enhance efficiency, transparency, and consistency in refugee adjudication. It can streamline decision-making, reduce backlogs, and improve resource allocation, thereby potentially increasing access to justice for refugee claimants. This thesis recommends that the IRB integrate open-source domain-specific, supervised machine learning artificial intelligence tools into its administrative processes for triaging claims, assigning claims to Members, streaming less complex claims, and deciding claims in the file review process. This will facilitate the faster disposition of simple and

straightforward refugee claims where no serious credibility, identity, exclusion, or other issues are identified.

However, as rightly argued by Salyzyn,[463] Byrne et al,[464] Scassa,[465] and Raso[466] among others, caution is necessary. The use of AI tools presents inherent risks, including algorithmic bias, infringement of privacy rights, and diminished human accountability, with bias being the primary potential risk highlighted in this research. The Canadian legal framework was examined to demonstrate that the law is not powerless in mitigating these risks. Various mechanisms to mitigate these risks have been analyzed, ranging from conducting algorithmic impact assessments to strengthening human oversight and appeal processes. Most importantly, ensuring fairness, transparency, accountability, and compliance with international standards is essential.

The general takeaway for administrative tribunals and the IRB in particular is that it is important to be mindful of the need to scrutinize the use of AI in processes that will impact the population, particularly vulnerable groups, such as refugee claimants. This is to ensure that AI generates accurate decisions. This thesis has demonstrated in Chapters four and five that the simpler the technology, the lower the impact on the legal rights and obligations of its recipients, and the greater the human involvement, the less need there is for human oversight. However, where the use of technology is complex, potentially impactful and occurs with humans 'out of the loop', greater caution is necessary, and more extensive oversight mechanisms will be appropriate.

[463] Salyzyn, *supra* note 11.
[464] Byrne et. al., *supra* note 98.
[465] Scassa, *supra* note 96.
[466] Raso, "AI and Administrative law" *supra* note 12.

Key recommendations from this thesis highlight the importance of establishing clear governance frameworks, maintaining ongoing stakeholder engagement, ensuring transparency, and implementing strong audit mechanisms. It also emphasizes the need for stringent data governance measures and comprehensive training for adjudicators. Additionally, human oversight must remain central, reinforcing that AI should assist rather than replace human decision-making. As Canada's largest administrative tribunal, the IRB should lead in adopting new technologies. Though some argue that, due to the sensitivity and vulnerability of refugee claims and claimants, the IRB might justifiably adopt a cautious approach to fully embracing artificial intelligence. Carefully applying the recommended measures will strengthen the IRB's commitment to responsibly integrating technology into the refugee determination process.

6.3 Limitations

This research is limited in its analysis of international practices, as it has not explored how different jurisdictions integrate AI into refugee determination, nor has it identified the legal framework in other jurisdictions for addressing the potential risks associated with AI use.

This research is also limited in its use of quantitative and empirical data. Subsequent research grounded in empirical evidence may be better positioned to test the algorithmic and artificial intelligence tools analyzed in this research.

Additionally, my positionality as a decision maker within the Immigration and Refugee Board (IRB) presents both strengths and limitations. While my position at the IRB offers an insider perspective that provides valuable insight into the institutional realities of the IRB, it may also

introduce unintentional bias in how I framed issues or analyzed potential benefits for the IRB in integrating AI tools. My positionality may have affected the way I interpreted findings and made recommendations in this research. It is also possible that my proximity to the subject matter may have inadvertently reinforced institutional perspectives at the expense of initiatives that will better favour claimants. Thus, it is likely that my research focused more on the benefits the IRB will gain from integrating AI tools in its adjudication system than on the benefits to refugee claimants. However, to mitigate these limitations, I have relied on diverse scholarly and policy sources forming the foundation upon which the research and recommendations are made.

6.4 Future Research Directions

Given the rapidly evolving nature of both AI technology and refugee protection law, several critical areas for future research have emerged from this research. Future research can undertake longitudinal studies assessing the long-term impacts of AI integration on the quality and fairness of refugee adjudications, monitoring trends over extended periods.

Future research could also explore claimant centered perspectives, focusing on the experiences of claimants. This could involve investigating how AI tools influence their perceptions of fairness, trust in the adjudication system, and access to justice, thereby providing essential qualitative insights.

Future research could examine how AI impacts fundamental human rights within refugee determination processes,[467] with a focus on developing ethical standards and normative guidelines that comply with international law.

By pursuing these research directions, future scholarship will significantly contribute to a robust, ethically sound, and legally compliant integration of AI into refugee adjudication, ultimately benefiting both claimants and the administrative justice system.

Addendum to the Conclusion

In recent weeks, there have been discussions about the file review process (also referred to as the paper review process); some have argued that paper reviews should be discontinued.[468] This raises the question of how this development might affect this present thesis. The answer is simple. Inasmuch as this thesis argues that the IRB should automate its positive paper decisions only, similar triaging and automation processes can be extended to regular claims. The fact that the less complex claims category may be discontinued now or in the near future doesn't mean that such claims will stop existing. So far as the country's conditions and the facts are so glaring that they will render a claim accepted, except in the face of serious credibility issues, the thesis continues to argue that such regular claims can be automated. Where a claim does not meet the requirements similar to the requirements in the less complex claims category (i.e. no ministerial interventions, no serious credibility issues, no identity issues, etc.), such a claim will be streamed back to the hearing category, and a hearing will be conducted to determine such a claim.

[467] See some work done in this regard, for example, Molnar, "Automating Migration" *supra* note 13; Molnar, "Technology on the margins" *supra* note 91; Scassa, *supra* note 96.
[468] Yousif, *supra* note 233.

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