Executive Summary

Regulating AI: Critical Issues and Choices

April 2021

About the Law Commission of Ontario

The Law Commission of Ontario (LCO) is Ontario's leading law reform agency.

The LCO provides independent, balanced, and authoritative advice on complex and important legal policy issues. Through this work, the LCO promotes access to justice, evidence-based law reform and public debate.

The LCO evaluates laws impartially, transparently and broadly. The LCO's analysis is informed by legal analysis; multi-disciplinary research; contemporary social, demographic and economic conditions; and the impact of technology.

The LCO is located at Osgoode Hall Law School, York University, Toronto.

More information about the LCO is available at *www.lco-cdo.org*.

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INTRODUCTION

This is the Executive Summary of the Law Commission of Ontario's (LCO) *Regulating AI: Critical Issues and Choices* report. This report is the second in a series of LCO Issue Papers considering the use of artificial intelligence (AI), automated decision-making (ADM) and algorithms in the Canadian justice system.

This Issue Paper identifies a series of important legal and policy issues that Canadian policymakers should consider when contemplating regulatory framework(s) for AI and ADM systems that aid government decision-making.

The context for this analysis is the extraordinary growth in the use of AI and ADM by governments across the world. This technology promises many benefits, while also raising significant risks to human rights, due process, procedural fairness, access to justice and the trustworthiness of justice-system and government decision-making.

The Government of Canada's *Directive on Automated Decision-making* ("the federal Directive") is the most significant initiative to directly regulate AI and ADM in Canada to date.[1] Many other governments, including the Government of Ontario, have begun to consider AI and ADM regulation as well.

The LCO has analyzed the federal Directive and several alternative models in order to answer a series of important questions:

- What issues should AI and ADM regulation address?
- Which model (or models) best ensures AI and ADM transparency, accountability, protection of human rights, due process and "trustworthiness" in governments and related institutions?
- Are there gaps in the Canadian regulatory landscape?
- Is regulation in Canada robust or comprehensive enough to meet the proven challenges of these systems?

Ensuring that AI regulation is responsive to these issues may help Ontario and other Canadian jurisdictions develop a regulatory framework that maximizes AI and ADM's potential benefits, while minimizing potential harm.

This report is part of the LCO's ongoing *AI, ADM and the Justice System* project.

More information about the LCO is available at *www.lco-cdo.org*.

THEMES, LESSONS LEARNED AND RECOMMENDATIONS

There are several important themes, lessons and recommendations in this Issue Paper:

- **AI, algorithms and automated decision-making are a significant new frontier in human rights, due process and access to justice.** Government use of AI and ADM is expanding rapidly across the world. AI and ADM systems are increasingly being used to make decisions affecting personal liberty, government benefits, regulatory compliance and access to important government services.

- **Governments must respond to the well-documented risks of AI and ADM systems.** Government AI and ADM systems have a track record. Experience with government AI and ADM systems across North America, Europe, Australia and New Zealand proves the risks of these systems. Questions about racial bias, "data discrimination," "black box" decision-making and public participation will surface quickly, repeatedly and urgently when AI and ADM systems are used more extensively by Canadian governments.

- **Proactive law reform is the best strategy to mitigate these risks.** The risk of AI and ADM cannot be comprehensively addressed through individual litigation, best practices, existing or piecemeal legislation. Law reform is needed to ensure AI and ADM meet high legal standards regarding disclosure, legal accountability, equality, procedural fairness/due process and access to remedies.

- **Proactive law reform will help Ontario and other Canadian jurisdictions maximize AI and ADM's potential benefits, while minimizing potential harm.** Proactive regulation supports AI and ADM innovation, "trustworthiness", better public services, economic development, and the fairness and legitimacy of government and justice-system decision-making.

- **At present, there is an extraordinary regulatory gap in Canada.** The federal Directive is a significant initiative to regulate AI and ADM in Canada. Unfortunately, there is no equivalent regulatory framework in Ontario or any other Canadian province. As a result, some of the most consequential potential uses of AI and ADM by provinces, municipalities, police services, child welfare agencies and/or many other important public institutions are under- or unregulated.

- **The best approach to AI and ADM regulation is to adopt a mixture of "hard" and "soft" law instruments, tailoring each to their appropriate purpose and context.** Comprehensive regulation of AI and ADM systems can be achieved through what is sometimes called a "smart mix" or "mixed model." This model assumes that no one single statute, rule or practice will be sufficient to govern AI and ADM systems. AI and ADM regulation should also be a shared responsibility between government departments and agencies.

- **Legislation and regulations are needed; ethical AI guidelines are not sufficient.** Ethical AI guidelines are insufficient to mitigate the harms caused by the use of AI and ADM systems due to their lack of specificity and reliance on voluntary compliance. Ethical guidelines, directives, "playbooks" or best practices and other "soft law" instruments have significant potential to supplement mandatory legal obligations and requirements.

- **The key elements of a comprehensive regulatory regime can be identified.** A comprehensive regime should include:

  - Baseline requirements for all government AI and ADM systems, irrespective of risk.
  - Strong protections for AI and ADM transparency, including disclosure of both the existence of a system and a broad range of data, tools and processes used by the system.
  - Mandatory "AI Registers."
  - Mandatory, detailed and transparent AI or algorithmic impact assessments.
  - Explicit compliance with the *Charter* and appropriate human rights legislation.
  - Data standards.
  - Access to meaningful remedies.
  - Mandatory auditing and evaluation requirements.
  - Independent oversight of both individual systems and government use of AI and ADM generally.

- **There must be broad participation in the design, development and deployment of these systems.** Unequal access to information and participation in AI and algorithmic decision-making can significantly worsen existing biases and inequality. Broad participation must include technologists, policymakers, legal professionals and the communities who are likely to be most affected by this technology.

WHY SHOULD GOVERNMENTS REGULATE AI AND AUTOMATED DECISION-MAKING?

AI and ADM systems can raise significant, novel and systemic risks to human rights, due process and access to justice, including:

- Risk that AI and ADM systems are racist and discriminatory in their design or outcomes.
- Risk that "black box" systems obscure legal decisions and choices.
- Risk that systems violate procedural fairness, disclosure, notice, transparency, explainability and remedy requirements.

Regulation is needed to ensure systems are transparent, explainable, accountable and comply with *Charter*, human rights and administrative law principles.

The Government of Canada's *Directive on Automated Decision-making* is the most significant initiative to regulate AI and ADM in Canada to date. The federal Directive is a positive initiative, but its scope is limited. More importantly, there is no legislative or regulatory framework governing AI or ADM accountability in Ontario, other Canadian provinces, or many other important public institutions that are, or that are likely to, develop and deploy significant AI and ADM systems. This is an extraordinary gap in public accountability.

Proactive government regulation supports AI innovation, "trustworthiness", better public services, economic development, and the fairness and legitimacy of government and justice-system decision-making.

Finally, absent regulatory guidance, there is a risk that governments develop or implement AI or ADM systems that deliver poor public services, harm vulnerable citizens, undermine public trust, or are struck down by courts. Proactive regulation is the best strategy to mitigate these risks.

AI AND ADM IN GOVERNMENT DECISION-MAKING

The benefits of AI and ADM to aid government decision-making may include increased accuracy, fairness, transparency and efficiency in decision making.[2] There is also a belief among some policymakers, technologists and academics that these tools can make government decision-making fairer and more equitable.[3] Not everyone shares this view. Indeed, AI, algorithms and ADM are often referred to as "weapons of math destruction"[4] or as "a sophisticated form of racial profiling."[5]

Governments around the world are currently using AI and ADM to:

- Adjudicate or prioritize government benefits.
- Determine or prioritize access to public services, such as housing education, or health.
- Assess the risk of unemployment insurance fraud.
- Assess the risk of child abuse or neglect.
- Assess the risk of domestic violence.
- Predict whether students are a high risk for school-related violence.
- Determine or prioritize immigration eligibility or status.
- Make hiring decisions/evaluate employee performance.
- Recommend prison classification and conditions for inmates.
- Conduct mass surveillance and photographic/video analysis, including facial recognition.
- Support DNA profiling and evidence, including probabilistic genotyping.
- Support predictive crime mapping (predictive policing).
- Support bail decision-making.
- Support sentencing decision-making.

Unfortunately, there are no studies or surveys that describe the use of AI and ADM by Canadian governments or public agencies. Transposed to the Canadian context, however, the applications in use internationally would affect some of Canadian's most important government services and the jurisdiction and workload of many Canadian Superior Courts, provincial courts and administrative tribunals.

REGULATING AI: INTRODUCTION

Experience suggests that issues regarding racial bias, privacy, lack of transparency, "data discrimination" and public participation will surface quickly, repeatedly and urgently in Canada if and when AI and ADM systems are used by Canadian governments. Ensuring that AI and ADM regulation is responsive to these issues will help Ontario and other Canadian jurisdictions develop a regulatory framework that maximizes this technology's potential benefits, while minimizing potential harms.

THE STARTING POINT: PUBLIC ENGAGEMENT

The LCO believes the starting point for AI/ADM regulation is robust and ongoing public participation. More specifically, the LCO believes that governments must engage with technologists, policymakers, government managers, frontline staff, lawyers, industry associations, community organizations and, crucially, the stakeholders and communities who are likely to be most affected by this technology. Proactive participation will promote good governance, thoughtful regulations and engender public trust in AI and ADM systems and government regulation.

CRITICAL ISSUES AND CHOICES — SUMMARY

Regulating AI and ADM is a novel and daunting undertaking: Governments will need to develop rules governing complex and rapidly evolving technology across a wide range of public sector operations, all the while ensuring compliance with the *Charter*, human rights legislation, administrative law and privacy obligations, to name but a few.

PURPOSE, DEFINITION AND APPLICATION OF REGULATIONS

Will AI Regulation Promote Innovation, Rights Protection or Both?

A fundamental issue facing governments is whether to prioritize the speed of government implementation of AI and ADM, the protection of rights and interests likely affected by AI and ADM, or to integrate the two.

The federal Directive aligns innovation with public trust and rights protection.[7] The LCO recommends that Canadian governments and institutions adopt this approach.

Defining AI and ADM Systems

AI and ADM systems are incredibly diverse and malleable. As a result, it has proven extraordinarily difficult to define these systems for the purpose of regulation. This situation has led some, including the NYC Automated Decision-making Task Force, to propose "frameworks" for identifying and categorizing systems according to their characteristics, rather than a specific definition.[8]

The LCO recommends an expansive and explicit definition (or definitions) of AI and/or ADM in governing regulations. Explicit definitions are key to establishing which systems (or types of systems) are subject to regulation. Equally important, definitions are key to public and legal accountability.

The purported risks of adopting a fixed definition of AI or ADM for regulatory purposes (including the risk of overbreadth or the risk that a definition "lags" technological developments) are real, but not insurmountable.

Scope, Exemptions, Prohibitions and Jurisdictional Gaps

Governments will have to decide important issues about the scope and application of AI and ADM regulations. These choices will have significant influence on the effectiveness and perceived fairness of AI and ADM use by government.

Scope of Regulation

The federal Directive employs both mandatory and permissive language: Most federal departments and agencies must comply with the Directive. Further, the federal Directive applies to "any system or statistical tool used to recommend or make an administrative decision about a client."[9] These provisions give the Directive potentially very broad application. Nevertheless, the Directive's scope and application is subject to several exceptions and limitations that could be very significant. For example, many of the most controversial and consequential criminal justice AI and ADM tools are likely excluded from the Directive.

The LCO recommends that future iteration(s) of the Directive (or any provincial, municipal or other public institution equivalent) be much broader in scope.

Regulating AI: Critical Issues and Choices

Purpose, Definition and Scope
- Will AI and ADM regulation promote innovation, rights protection or both?
- How should AI and ADM be defined?
- Are regulations mandatory?
- What institutions or activities will be regulated?

Ethical AI, Hard Law, the Mixed Model and Risk-Based Regulation
- Commitment to comprehensive regulation?
- What form(s) will regulation take?
- Is there a statutory framework?
- Will regulation be risk-based?

Accountability and Transparency
- Commitment to comprehensive accountability and transparency?
- Mandatory AI and ADM registers?
- Mandatory AI and ADM impact assessments?
- What will be disclosed?
- What rules govern AI and ADM procurement?

Bias and Fairness
- How will regulations address bias and discrimination?
- How will regulations ensure procedural fairness and due process?

Oversight and Remedies
- Is there independent oversight of AI and ADM systems?
- Are there remedies for rights violations?
- Are independent audits and evaluations required?
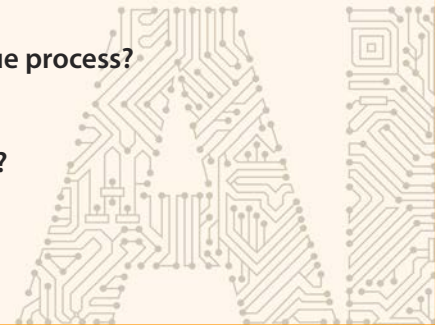
Prohibitions

Governments will have to consider whether there are certain AI or ADM technologies that should be prohibited outright. New methods of mass profiling and surveillance – including facial recognition, biometric identification, predictive policing, social network behavioural analysis, and "smart cities" – have been called "red line" AI and ADM technologies. Some of these technologies are already being used in Canada: The use of facial recognition software, for example, has already been confirmed in police services including Toronto, Calgary, Edmonton, Ottawa, and five additional regional police forces in Ontario covering the majority of the provincial population.[10]

Some governments have already enacted or proposed bans on the use of specific AI or ADM systems, particularly facial recognition technology, including San Francisco,[11] Boston,[12] and a proposed ban on facial recognition technology by US federal law enforcement.[13]

Jurisdictional Gaps

AI and ADM systems are likely to be used by governments and public institutions far beyond the reach of the federal Directive, including provincial governments, municipalities, school boards, child welfare agencies, police services, universities, hospitals, courts, tribunals, and many others. This means the most consequential and controversial AI and ADM applications could be deployed by literally hundreds (if not thousands) of public institutions across Canada without any dedicated regulatory framework.

This is an alarming jurisdictional gap in AI and ADM regulation in Canada. The principles of AI and ADM transparency, accountability, human rights, fairness and "trustworthiness" are important in all AI and ADM systems and in all public institutions.

The LCO recommends these gaps be addressed urgently. Provincial governments (including the Government of Ontario), municipalities and other important public institutions need to begin developing their own policies, rules, regulations and statutes governing AI and ADM systems.

ETHICAL AI, HARD LAW, THE MIXED MODEL AND RISK-BASED REGULATION

Form(s) of Regulation: Ethical AI vs. "Hard" Law

Early efforts to "regulate" AI were typically in the form of "ethical AI" guidelines or best practices developed by a range of governments, NGOs or industry associations. Indeed, the growth of "ethical AI" models has been astounding.[14]

Ethical AI guidelines and frameworks vary considerably in scope and detail. Some examples stand out, however, for their sophistication and apparent commitment to human rights, transparency and AI and ADM accountability, including the "Ethics Guidelines for Trustworthy AI", recently published by the European Commission's High-Level Expert Group (HLEG) on Artificial Intelligence.[15]

Importantly, the HLEG Guidelines do not purport to be, or aspire to become, binding legal standards. They are rather, explicitly identified as a tool for "self-assessment…intended for flexible use: organizations can draw on elements [from the Assessment List]...as they see fit."[16]

The "Ethical AI" approach has been subject to many deep and significant criticisms. These critiques emphasize that ethical guidelines are insufficient to mitigate the harms caused by the use of AI systems due to their lack of specificity and reliance on voluntary compliance. More pointedly, many critics believe that AI ethics may "become a smokescreen for an unregulated technical environment."[17] As a result, governments and other organizations that adopt ethical guidelines – without more – are often criticized as "ethics washing."[18]

A "hard law" approach is found in Washington State legislation. Washington State House Bill 1655 includes mandatory and detailed statutory requirements governing the use of ADM systems by the Washington State government and public agencies.[19]

The federal Directive falls between these two examples. The federal Directive is not a voluntary, self-assessing "ethical AI" guideline or best practise. At the same time, a federal Directive does not have the legal status of a statute or a regulation. As noted by Professor Teresa Scassa, "…the requirements to comply with directives are internal to government, as are the sanctions. Directives do not create actionable rights for individuals or organizations."[20]

The "Mixed Model"

The LCO believes the best approach to AI and ADM regulation is to adopt a mixture of "hard" and "soft" law instruments, tailoring each to their appropriate purpose and context. This view is sometimes called a "smart mix" or "mixed model" of AI and ADM regulation.[21]

In the LCO's view, legislation is clearly needed to provide the foundational governance framework for these systems. A legislative framework would provide consistent direction and accountability requirements to the actors, departments and/or agencies within its scope. It would also ensure changes to the governance framework were subject to legislative review. Finally, legislation would establish a level of public and legal accountability commensurate with the issues and rights at stake.

That said, the LCO does not discount the use or importance of ethical guidelines, directives, "playbooks" or best practices. Indeed, the LCO believes these instruments have significant potential to supplement or expand upon mandatory legal obligations and requirements. Internationally, there have been many important initiatives to develop AI or ADM-specific "soft" legal instruments. Notable examples include the UK Office of Artificial Intelligence's "Guidelines for AI Procurement,"[22] and the standards developed by the Institute of Electrical and Electronics Engineers (IEEE).[23]

Risk-Based Regulation

Many regulatory models use risk-based approaches to determine whether, and to what degree, an AI or ADM system should be regulated. For example, in 2020, the European Commission published a "White Paper on Artificial Intelligence: a European Approach to Excellence and Trust."[24] The White Paper presented a new regulatory framework embracing a risk-based approach, focusing on high-risk applications. For applications not classified as high-risk, the White Paper proposes a voluntary labelling scheme.

The White Paper was heavily criticized. Critics focussed on the potentially wide interpretation of "low" risk, who gets to determine risk levels, if or how "low" risk applications will be human rights-protected, and how to protect human rights in the grey area between binary high/low categorisations.[25]

By way of contrast, Washington State House Bill 1655 would establish detailed and comprehensive requirements for *all* ADM systems in that state, irrespective of the level of risk.[26]

The federal Directive represents a different model. It is risk-based, but the risk levels are more sophisticated and nuanced. Rather than having two levels of risk (high/low), the federal Directive establishes four levels, judged by the impact of an automated decision as determined by an Algorithmic Impact Assessment. Significantly, the Directive establishes baseline requirements that apply to all ADM systems, regardless of impact level, including requirements respecting quality assurance and monitoring, data validity, and providing individuals with "recourse options that are available to challenge the administrative decision" and reporting on effectiveness and efficiency. The Directive then establishes requirements for each impact level, including greater or lesser levels of notice, peer review, employee training and human intervention.[27] In this manner, the federal Directive establishes a sliding-scale of requirements and due diligence depending on the level of risk identified.

In principle, the LCO agrees with risk-based regulation. Risk-based regulation is both a practical response to the wide variety of AI and ADM systems and responsive to the principles and requirements of administrative law. It is important, however, to ensure that governments are publicly accountable

for their decisions about the potential impact or risk of an AI or ADM system. The LCO rejects binary high/low classifications for the reasons described above. Finally, the LCO strongly supports the principle of establishing baseline requirements for all AI and ADM systems, irrespective of the level of risk.

ACCOUNTABILITY AND TRANSPARENCY

Many commentators emphasize that the most important legal issues at this stage of AI development are the principles of accountability and transparency.[28] Methods and strategies for achieving algorithmic transparency, include 1) disclosure, 2) impact assessments and 3) procurement rules.

Disclosure

It is widely acknowledged that some form of disclosure should be a feature of AI and ADM regulatory models, guidelines or best practices.

As a first step, the LCO strongly recommends the adoption of what are sometimes called "AI Registers." These are websites that identify and document the use of AI and ADM systems by governments. The purpose of AI Registers is to centralize disclosure of AI and ADM systems, to promote public and legal accountability, and to be a resource for developers, stakeholders, researchers and the general public.

The best-known AI Register is the model jointly developed by the cities of Amsterdam and Helsinki.[29] A less well-known but more important AI Register is Government of Ontario's public catalogue for "algorithms, tools and systems powered by data across the Ontario Public Service."[30]

The federal Directive includes detailed mandatory disclosure requirements. Government agencies are required to provide notice on websites when decisions will be made by, or with the assistance of, an ADM system, regardless of the applicable impact level.[31] In addition, for higher impact systems, the Directive requires publication of information describing how the system works, how the system supports the administrative decision, the results of any reviews or audits, a description of the training data, etc.[32]

The LCO recommends that governments across Canada develop mandatory AI registries for their respective jurisdictions. The LCO believes that disclosure should include disclosure of both the *existence* of a system and disclosure of a broad range of tools and processes *used by the system*. In practice, the extent of disclosure should likely vary depending on the use and impact of a system.

Impact Assessments

The LCO's research suggests that impact assessments have become perhaps the most widely-promoted tool for ensuring AI and ADM transparency and accountability.

Many current impact assessment proposals take the form of guidelines or best practices, consistent with an "ethical AI" approach. The HLEG's recent "Assessment List for Trustworthy AI" is a comprehensive example.[33]

The federal Directive and the accompanying Algorithmic Impact Assessment (AIA) tool are a significant

improvement on the HLEG self-assessment model. The Directive requires an Algorithmic Impact Assessment for every automated decision-making system within the Directive's scope, including an assessment of "the impact on rights of individuals or communities." The AIA asks persons or organizations considering an ADM system to address approximately 60 questions designed to evaluate the appropriate risk level for a proposed system.[34] The Directive further requires that Algorithmic Impact Assessments be released publicly.[35]

In the LCO's view, impact assessments are a fundamental tool for ensuring public and legal accountability of AI and ADM systems. The LCO further believes that impact assessments must be mandatory, detailed and transparent. Canadian impact assessments would be improved, however, if they required more explicit assurances (and thus more accountability) on several key issues, including:

- A clear description of the purpose and objectives of the AI or ADM system, including how the system will be used to fulfill specified statutory objectives;

- Assurances on compliance with *Charter* and human rights legislation and a description of potential impacts on constitutional, human rights or privacy rights;

- A clear description of how an individual may challenge or appeal a decision based in whole or part on an AI or ADM system;

- Assurances on compliance with best practices in data collection, retention, management and testing; and,

- Assurances about public participation in design, development, and evaluation of AI and ADM systems.

The LCO reiterates that the risks of AI and ADM systems extend far beyond the federal government and the scope of the current federal Directive. Transparency, accountability, human rights, fairness and "trustworthiness" are important principles in all high-impact AI and ADM applications and in all public institutions. As a result, the LCO strongly recommends that the Government of Ontario, municipalities and other public institutions adopt mandatory impact assessments consistent with the analysis above.

Finally, the LCO believes AI and ADM impact assessments should be publicly available on the comprehensive AI Register described above.

Procurement

Procurement has become a high profile and controversial AI and ADM regulatory issue. This is because of concerns that proprietary AI or ADM tools may rely on trade secret claims to prevent disclosure and transparency.[36]

Trade secrets or proprietary software should not be used as a shield to prevent, or limit, public accountability and transparency of AI and ADM systems. It is worth noting that outsourcing AI and ADM design does not absolve a government from their legal obligations respecting human rights, due process and/or procedural fairness. As a result, the LCO believes governments should adopt (or amend) procurement rules to ensure these legal requirements are met.

BIAS AND FAIRNESS

Discrimination

The LCO's first Issue Paper, *Rise and Fall of AI and Algorithms in American Criminal Justice: Lessons for Canada,* discusses the many ways in which an AI or ADM system can be biased and the pressing need for law reform. For example, many AI and ADM systems rely on historically racist, discriminatory or biased data. Discrimination and bias issues also arise regarding statistical "metrics of fairness," scoring, automation bias, due process, access to justice and the accuracy, reliability and validity of datasets.[37]

Given this context, governments must consider how to effectively prevent, disclose and/or remedy bias and discrimination in government AI and ADM systems.

To its credit, the Government of Ontario has addressed this issue forthrightly: The government's 2019 discussion paper, *Promoting Trust and Confidence in Ontario's Data Economy*, establishes promoting trust and confidence in the government's use of AI systems is the first of three pillars of the Ontario Data Strategy.[38] The paper notes bias and discrimination is a threat or risk associated with "data-driven practices" and that bias is related to lack of transparency if it is difficult to contest potentially biased decisions.[39]

Governments, technologists, legal organizations, academics, civil society organizations, community organizations and industry associations around the world have committed to addressing bias and discrimination issues in AI and ADM systems. As a result, there are many promising examples, best practices and regulatory regimes that Canadian policymakers can draw upon.

Constitutional or Human Rights Provisions

Several jurisdictions have adopted or considered explicit legislative commitments to ensure AI and ADM systems are compliant with constitutional law or anti-discrimination statutes. These provisions may include legislative findings, preambles or explicit provisions stating that an AI or ADM system must comply with constitutional principles or anti-discrimination legislation. For example, Washington State House Bill 1655 includes provisions that *"A public agency may not develop, procure, or use an automated final decision system to make a decision impacting the constitutional or legal rights, duties, or privileges of any Washington resident..."*[40]

Interestingly, the federal Directive does not appear to explicitly require AI or ADM systems to comply with the *Charter* or Canadian human rights legislation. Rather, the federal Directive states that its objective is to:

> …*ensure that Automated Decision Systems are deployed in a manner that reduces risks to Canadians and federal institutions, and leads to more efficient, accurate, consistent, and interpretable decisions made pursuant to Canadian Law.*[41]

The federal Directive should be commended for its explicit commitment to administrative law principles and "applicable laws." Nonetheless, the LCO believes the federal Directive would be strengthened considerably if it added an explicit commitment that the federal government will ensure that AI and ADM systems comply with the *Charter* and appropriate human rights legislation. These provisions, although potentially technically unnecessary, would provide greater legal certainty and accountability and promote public trust in the face of widespread concerns about "racist" or discriminatory AI and ADM systems. The federal government's assessment of a system's *Charter* or

human rights compliance should also be included in a system's impact assessment, as discussed above. These requirements should be included in any equivalent legislative or regulatory instruments governing AI and ADM systems used by provincial governments, municipalities and other public institutions.

Data Disclosure Requirements

Many regulatory proposals that explicitly require disclosure of data are directly linked to concerns about the potential impact of historical racialized data in AI and ADM systems. Accordingly, the LCO recommends detailed disclosure of information regarding a system's source and use of data, including:
- Training data.
- Description of design and testing policies and criteria.
- List of factors that tools use and how they are weighted.
- Thresholds and data used to determine labels for scoring.
- Outcome data used to validate tools.
- Definitions of what the instrument forecasts and for what time period.
- Evaluation and validation criteria and results.

Best Practices and Ethical AI Guidelines

In addition to the proposals discussed above, there are many emerging best practices for addressing bias and discrimination in AI and ADM systems, including best practices addressing data practices, public participation, and evaluation of AI and ADM systems. The LCO believes best practices of this sort should be used to supplement, not replace, stronger anti-bias and discrimination regulatory protections.

Research, Testing and Evaluation Requirements

Another important initiative to reduce the potential for bias and discrimination is a requirement for regular research, testing and evaluations of AI and ADM systems. As a result, the LCO recommends governments establish mandatory requirements that AI be audited and evaluated for accuracy, effectiveness, efficiency and bias.

Procedural Fairness/Due Process

The LCO's research reveals a general lack of procedural fairness and due process protections in most AI regulatory models and best practices.

The federal Directive is a notable exception. The Directive explicitly states that an objective of Directive is that "[d]ecisions made by federal government departments are data-driven, responsible, and compl[y] with procedural fairness and due process requirements."[42] The Directive further notes that

> Procedural fairness is a guiding principle of government and quasi-government decision-making. The degree of procedural fairness that the law requires for any given decision-making process increases or decreases with the significance of that decision and its impact on rights and interests.[43]

The Directive also states that a government department using an ADM system must.

- Provide "notice on relevant websites that the decision rendered will be undertaken made in whole or in part by an Automated Decision System."[44]

- Provide "a meaningful explanation to affected individuals of how and why the decision was made."[45]

- Provide "clients with any applicable recourse options that are available to them to challenge the administrative decision."[46]

Professors Teresa Scassa and Jennifer Raso have both analyzed the Directive against Canadian administrative law principles and requirements, including the requirements for fairness, notice, disclosure, hearings and reasons.[47] Professor Scassa states that "the [Directive] is an intriguing example of "procedural fairness by design" and that

> *A major contribution of the [Directive] and the AIA tool is their attempt to embed principles of fairness, transparency and accountability up front in system design – rather than relying upon judicial review to correct the problems with specific outcomes.*[48]

Both scholars conclude that Canadian administrative law and the Directive itself leave many unanswered questions that may have to be addressed through judicial review or amendments.[49] Outstanding questions include:

- Are the Directive's notice and disclosure provisions sufficient to meet administrative law requirements?
- What does the Directive's requirement for a "meaningful explanation" mean?
- What is the standard of review of decisions made or assisted by ADM systems?

These and other questions about the Directive will no doubt be addressed by tribunals, courts, academics, litigants and policymakers over the course of time.

From a regulatory perspective, however, the most important issues regarding procedural fairness/due process fall outside the scope of the federal Directive:

- The federal Directive has several important limits on its application and scope, including explicit exemptions (e.g. national security), the Directive's limitation to "administrative decisions" and its limitation to ADM systems that provide "external services." Absent amendments or judicial interpretation, federal ADM systems in these areas will lack the procedural fairness protections enacted in the Directive.

- The federal Directive does not appear to apply to AI, ADM or algorithmic tools that may be used in the criminal justice system, including predictive policing, algorithmic risk assessments, and/or facial recognition technology.

- The federal Directive regulates the federal government and federal agencies. Unfortunately, there is no equivalent regulatory framework in Ontario or any other Canadian province. As a result, there are no dedicated procedural fairness or due process protections governing potential uses of AI and ADM by provinces, municipalities, police services, child welfare agencies and/or many other important public institutions.

Governments cannot leave these questions unanswered. Experience in the United States demonstrates the harms and controversies that can (and likely will) arise if and when these tools are introduced in Canada without proper administrative law or criminal due process protections in place prior to implementation.

In addressing this task, governments will need to address what can reasonably be expected in

systemic regulation like the Directive. In other words, what procedural fairness or due process protections can or should be enshrined in "framework" or "horizontal" regulation/ legislation? What protections should be included in "vertical" or sectoral instruments?"

As noted above, the LCO believes that appropriate and effective protections for procedural fairness and due process will very much depend on a comprehensive mix of explicit and dedicated statutes, regulations, directives and rules of practice governing specific areas of government activity or ministries.

OVERSIGHT AND REMEDIES

Independent Oversight

Governments will need to consider whether and how to establish independent oversight of both individual AI and ADM systems and government use of this technology generally. These are two separate issues, both of which can make significant contributions to AI and ADM transparency, accountability and effectiveness.

Oversight of Individual Systems

There is a broad consensus that AI and ADM systems should be subject to regular oversight and evaluations by external experts. For example, the Partnership on AI's "ten minimum requirements for the responsible deployment of criminal risk assessment tools" include two specifically dedicated to open research and evaluations.[50]

The federal Directive fulfills some, but not all, of these requirements. For example, the Directive requires the monitoring of outcomes for all systems, irrespective of the level of impact. That said, the Directive "permits" external review, but does not require it.

The LCO believes the Directive and any equivalent instruments at the provincial, municipal or agency level should mandate independent reviews consistent with the PAI standards. These requirements should also explicitly specify that independent evaluations must include representatives from a broad cross-section of experts and stakeholders, including data scientists, legal representatives, and members of the communities most affected by the AI or ADM system.

Oversight of Government AI and ADM System Generally

Many AI accountability proposals recommend that governments establish an independent oversight body or coordination office to oversee systemic AI and ADM development, deployment and evaluation. The rationale for this approach has been summarized by the New Zealand Law Foundation as follows:

> [w]hile important, …, regulatory models that rely on affected individuals enforcing legal rights are unlikely to be adequate in addressing the concerns around increasing use of algorithms. One, affected individuals will lack the knowledge or the means effectively to hold these tools and processes to account. They are also likely to lack the 'wide-angle' perspective necessary to evaluate their effective populations.[51]

There are many American examples of coordinated or independent oversight of AI and ADM systems, including an "Algorithms Management and Policy Officer" established in New York City.[52] Similarly,

Washington State House Bill 1655 would assign responsibilities to the Washington's Chief Privacy Officer to adopt rules "regarding the development, procurement, and use of automated decision systems by a public agency" which must include "the minimum standards and procedures" also established by the Bill. [53]

The LCO supports the principle of independent oversight and intergovernmental coordination of AI and ADM systems. The LCO is less certain about the institutional design or placement of these functions. Governments will have to give considerable thought to the best way to achieve independent oversight, especially in light of the mandates of existing government agencies, such as Privacy Commissioners or Human Rights Commissions.

Remedies

Access to meaningful remedies is a key principle of access to justice. The LCO's research reveals comparatively few examples of statutes, regulations or guidelines that set out explicit remedial provisions.

The federal Directive is a partial exception to this finding. The federal Directive states that the Assistant Deputy Minister responsible for a program using an ADM system is responsible for:

> 6.4.1   *Providing clients with any applicable recourse options that are available to them to challenge the administrative decision.*[54]

This commitment, while explicit, is not very specific. More importantly, while the federal Directive may acknowledge the need for remedies, the Directive does not actually *create* a legal right to a remedy. This is a significant limitation on the effectiveness and potential accountability of the Directive.

The federal Directive may be contrast with Washington State House Bill 1655. The Bill would also give any person injured by a "material violation" of the Act (which may include denial of any government benefit) a statutory right to institute proceedings against an agency and the right to seek injunctive relief, restoration of the government benefit in question, declaratory relief, or a "writ of mandate."[55]

The lack of a statutory remedies regime obviously does not mean that government decisions made or aided by AI and ADM cannot or will not be challenged. There are many potential grounds and routes for legal challenges, particularly if it is alleged that the decision or system was discriminatory in some fashion.

The LCO's Criminal AI Issue Paper discussed the limits of "regulation by litigation" as a strategy for challenging ADM decisions in the criminal justice system at length.[56] In that paper, the LCO emphasized the enormous practical burden placed on individual defendants wishing to challenge decisions based on automated risk assessment tools. The LCO concluded that access to justice depended on both regulation of ADM *systems* and a dedicated remedial regime that allowed effective *individual* challenges to ADM-based decisions. The LCO warned that failure to adopt such measures could add significant barriers for low-income, Indigenous and racialized communities, thus compounding the over-representation of these communities in the justice system.

HOW TO GET INVOLVED

The LCO believes that successful law reform depends on broad and accessible consultations with individuals, communities and organizations across Ontario. As a result, the LCO is seeking comments and advice on this report. There are many ways to get involved:

- Learn about the project on the LCO website (***www.lco-cdo.org***);
- Contact us to ask about the project; or,
- Provide written submissions or comments on this report.

The LCO can be contacted at:

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Osgoode Hall Law School, York University
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Toll-free: 1 (866) 950-8406

1   Canada, *Directive on Automated Decision-Making*, (2019) [Canada Federal Directive], online: **https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32592#appA**.

2   Engstrom, David Freeman and Ho, Daniel E. and Sharkey, Catherine M. and Cuéllar, Mariano-Florentino, Government by Algorithm: Artificial Intelligence in Federal Administrative Agencies (February 1, 2020) [US Federal Administrative Agencies], online: **https://ssrn.com/abstract=3551505** at 6.

3   See, for example, "How AI Can be a Force For Good in Government", Feb 28, 2019, George Atalla, EY Consulting **https://www.ey.com/en_gl/consulting/how-ai-can-be-a-force-for-good-in-government**; "Ten Ways Data can Make Government Better", Harvard Kennedy School Ash Center **https://datasmart.ash.harvard.edu/news/article/ten-great-ways-data-can-make-government-better-1041**.

4   This term comes from the title of a book by Cathy O'Neil, a former Wall Street data scientist and mathematician. Her 2016 book, *Weapons of Math Destruction*, popularized the idea that AI, algorithms and big data reinforce and worsen bias and discrimination in public and private sector decision-making.

5   Human Rights Watch, *Not In It For Justice,* (April 2017) [Human Rights Watch], online: **https://www.hrw.org/report/2017/04/11/not-it-justice/how-californias-pretrial-detention-and-bail-system-unfairly** at 8.

6   See generally, AINow Institute, *Algorithmic Accountability Policy Toolkit*, (October 2018), online: **https://ainowinstitute.org/aap-toolkit.pdf**; US Federal Administrative Agencies; Michele Gilman, *Poverty Algorithms: A Poverty Lawyer's Guide to Fighting Automated Decision-Making Harms in Low-Income Communities,* Data and Society (September 2020), online: **https://datasociety.net/wp-content/uploads/2020/09/Poverty-Lawgorithms-20200915.pdf**; Australian Human Rights Commission, *Human Rights and Technology Discussion Paper,* (December 2019) [Australian Human Rights and Technology], online: **https://tech.humanrights.gov.au/sites/default/files/2019-12/TechRights_2019_DiscussionPaper.pdf**; and *Government Use of Artificial Intelligence in New Zealand: Final Report on Phase 1 of the NZ Law Foundation's AI and Law in NZ Project*, (Wellington, 2019) [NZ AI and Law], online: **https://www.cs.otago.ac.nz/research/ai/AI-Law/NZLF%20report.pdf**.

7   Canada Federal Directive.

8   Automated Decisions Systems Task Force, *Automated Decision Systems Task Force Report,* New York City, (November 2019) [NYC AI Task Force], online; **https://www1.nyc.gov/assets/adstaskforce/downloads/pdf/ADS-Report-11192019.pdf** at 19.

9   Canada Federal Directive, s. 5.2.

10   Kate Robertson, Cynthia Khoo and Yolanda Song, *To Surveil and Predict, A Human Rights Analysis of Algorithmic Policing in Canada*, Citizen Lab and International Human Rights Program, University of Toronto Faculty of Law, (September 2020) [Citizen Lab], online: **https://citizenlab.ca/wp-content/uploads/2020/09/To-Surveil-and-Predict.pdf** at 62-63.

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14   Access Now, *Europe's Approach to Artificial Intelligence: How AI Strategy Is Evolving*, (2020) [Access Now AI Strategy], online: **https://www.accessnow.org/eu-trustworthy-ai-strategy-report/** at 26.

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18   See generally, Thomas Metzinger, "Ethics Washing Made in Europe" (Aug. 4, 2019), online at: **https://www.tagesspiegel.de/politik/eu-guidelines-ethics-washing-made-in-europe/24195496.html**.

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27   Canada Federal Directive*,* s. 6.

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54   Canada Federal Directive, s.6.4.1.

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