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LEGAL STANDING IN ALGORITHMIC HARM CASES. COLLECTIVE ACTION IN LITIGATING RISK MODELS ACROSS E-GOVERNMENT STATES

Abstract

The paper demonstrates the cycle of access to justice in algorithmic harm cases. It analyses harm in deploying risk models in social security domains by two e-governments and compares legal standing provisions therein. Case studies have been selected from the domestic legal systems of Australia and the Netherlands. The paper concludes that as long as domestic judicial review mechanisms require demonstrating sufficient interest in the case, there are limited possibilities, if any, for the individual victims to claim algorithmic harm directly and seek access to justice. It is due to the individualistic nature of legal standing provisions vis-à-vis collective deployment of algorithmic decision-making processes. Conversely, algorithmic models can be addressed when public interest litigation is in place. However, this solution would not address an individual harm caused by the risk models but rather aim at removing the risk model from decision-making processes. Therefore, neither solution can satisfy all interests that various applicants, especially the vulnerable ones, may have in litigation.

KEYWORDS

algorithmic harm, legal standing, collective action, access to justice, risk models

SŁOWA KLUCZOWE

szkoda przez algorytmy, prawo do stawania przed sądem, pozew zbiorowy, dostęp do sprawiedliwości, modele oparte na ryzyku

1. INTRODUCTION: ALGORITHMIC HARM IN E-GOVERNMENTS

Algorithmic decision-making tools,[1] trained and tested on data collected and scraped from existing digital data sources, have contributed to organizing and facilitating our lives. For example, to ensure the efficiency of social security systems calculated from individuals' incomes, States introduce automated forms of detecting frauds. Therefore, robust reasons exist for shifting towards e-governments and augmenting the public sector with these tools. States are attracted by the promising benefits of digitalization and integrate algorithms into their decision-making processes.[2] However, the characteristics of the contemporary algorithmic decision-making processes, including contexts of deployment, have already led to harm (including through algorithmic bias and discrimination) and increasing the disadvantages already suffered by vulnerable groups based on such grounds as race, national or ethnic origin, gender, age or economic status. Among many aspects of these decision-making processes, litigations of algorithmic harm become problematic when confronted with the scale of the algorithms' deployment by e-governments and difficulties for individuals in discovering and subsequently proving that algorithmic harm took place before courts.[3] Therefore, more and more cases are emerging across e-government jurisdictions in which individuals face legal standing obstacles in litigating algorithmic harm.

Legal standing is a term used in legal procedures to describe a person or an entity who can bring a case before the relevant supervisory body. It is a legal institution through which a claimant can stand to present a case and receive a decision

[1] Algorithms are computer programs for sorting, searching, counting and classifying. Michael D'Rosario and Carlene D'Rosario, 'Beyond RoboDebt: The Future of Robotic Process Automation' (2020) 11 International Journal of Strategic Decision Sciences (IJSDS) 1, 1–2.

[2] D'Rosario and D'Rosario (n 1) 13–16; Tapani Rinta-Kahila and others, 'Algorithmic Decision-Making and System Destructiveness: A Case of Automatic Debt Recovery' (2022) 31 European Journal of Information Systems 313, 313; Geoffrey Mead and Barbara Barbosa Neves, 'Contested Delegation: Understanding Critical Public Responses to Algorithmic Decision-Making in the UK and Australia' (2023) 71 The Sociological Review 601.

[3] Cecil Abungu, 'Algorithmic Decision-Making and Discrimination in Developing Countries' (2022) 13 Journal of Law, Technology, & the Internet 39, 51.

on the merits.[4] Depending on the legal system, legal standing requires the person or entity to prove that they have their own legal or factual interest in the case (for example, harm or damage suffered, and for which a court is able by law to provide remedy). Every jurisdiction has its own procedure that shapes this institution. Regarding algorithmic harm, legal standing is affected by factors such as defining who is entitled and has necessary resources to demonstrate the legal interest. Administrative procedures aim at challenging general State practices applied towards an undetermined number of potential victims. Therefore, in administrative justice cases, unless civil society groups are involved, individuals do not have the necessary resources to access remedies in domestic procedures against a State when they are required to demonstrate an individual interest (for example, being an individually targeted victim of algorithmic harm) under domestic law in question. A claim is usually individualistic in nature and is difficult to proceed with in algorithmic harm cases that are collective in nature. Individuals would be required to establish legal standing in the case by proving that the outcome of the algorithmic decision-making process affected them individually. Therefore, a shift towards the notion of collective harm in algorithmic decision processes can have great implications on the legal standing provisions since it would challenge the traditional identification of individuals being affected by a risk model. However, this shift requires re-defining the legal standing provisions towards collective action (and not necessarily public interest litigation or *action popularis*).

Various stakeholders have sought to address the harmful effects of algorithmic decision-making tools through sectoral regulation, treaties, soft law and ethics. Nynke E Vellinga has analyzed how new EU liability rules would shape the burden of proof to tackle information asymmetries between parties in a liability claim concerning risk and loss caused by defective algorithmic tools.[5] Opposing sole reliance on data by States, Jack Maxwell has argued that judicial review performs as a powerful tool to address abuses in algorithmic decision-making processes.[6] Human rights litigation constitutes only one option among others to inhibit the social impacts of innovations.[7] The human rights-centred perspective encroaches into the litigation of opacities and malfunctions of algorithms.[8]

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[4] Stephan Kolo ßa, 'Standing (Locus Standi)', *Max Planck Encyclopedia of Comparative Constitutional Law* (2021) para 1.

[5] Nynke E Vellinga, 'Rethinking Compensation in Light of the Development of AI' [2024] International Review of Law, Computers & Technology 1.

[6] Jack Maxwell, 'Judicial Review and the Digital Welfare State in the UK and Australia' <https://papers.ssrn.com/abstract=3896200> accessed 18 April 2024.

[7] Claude Castelluccia and Daniel Le Métayer, 'Understanding Algorithmic Decision-Making: Opportunities and Challenges'. (Secretariat of the European Parliament 2019) PE 624.261 <https://data.europa.eu/doi/10.2861/536131> accessed 28 February 2023.

[8] Solon Barocas and Andrew D Selbst, 'Big Data's Disparate Impact' (2016) 104 671; Stephanie Bornstein, 'Antidiscriminatory Algorithms' (2019) 70 Alabama Law Review 519; Jenni

Against this background, the paper focuses on algorithmic harm and standing provisions as the key element for accessing justice against public bodies as the users of algorithms and, therefore, also entities against which legal action is taken. It asks whether there is a need for procedural rule changes in the context of algorithmic decision-making processes. In this vein, the paper compares two case studies – Australian and Dutch, and asks how have legal standing provisions impacted the ability of individuals to challenge risks models deployed by Australia and The Netherlands in social security systems. Social security is among the most fragile areas involving algorithmic decision-making processes in the public sector.[9] The cases in this field are evolving with the different municipal approaches available to claim harm.[10] Both States have deployed algorithmic-driven welfare enforcement systems which has raised significant social and legal controversies. They belong to advanced democracies with strong incentives for the rule of law and the protection of individuals against harms in legal procedures. However, there are significant differences throughout the jurisdictions with respect to legal standing thresholds. The normative frameworks of the selected States also impact particular strategy litigants pursue as well as judge's reasoning. These differences directly impact upon the court's decision on admissibility criteria and make it difficult to arrive at a 'one size, fits all' litigation model to address algorithmic harm. Consequently, the case studies led to different legal outcomes concerning individual algorithmic harm. This contrast will help illuminate differentiated options to procedurally address algorithmic harm in the future. This article is, therefore, not a comprehensive study but it pursues an in-depth qualitative analysis of how legal

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Hakkarainen, 'Naming Something Collective Does Not Make It so: Algorithmic Discrimination and Access to Justice' (2021) 10 Internet Policy Review; Sonia K Katyal, 'Private Accountability in an Age of Artificial Intelligence' in Woodrow Barfield (ed), *The Cambridge Handbook of the Law of Algorithms* (Cambridge University Press 2020); Carsten Orwat, *Risks of Discrimination through the Use of Algorithms* (Federal Anti-Discrimination Agency 2020) <https://publikationen.bibliothek.kit.edu/1000123477> accessed 4 January 2022; Frederik J Zuiderveen Borgesius, 'Strengthening Legal Protection against Discrimination by Algorithms and Artificial Intelligence' (2020) 24 The International Journal of Human Rights 1572; Jennifer Raso, 'Implementing Digitalisation in an Administrative Justice Context' in Marc Hertogh and others (eds), *The Oxford Handbook of Administrative Justice* (Oxford University Press 2022).

[9] Pablo Jiménez Arandia, 'Algorithmic Transparency in the Public Sector' (Official Journal and PublicationsOrganisation of the Government of Catalonia 2023) Govern Obert 9 22; Maria O'Sullivan, 'Chapter 11: Artificial Intelligence and the Right to an Effective Remedy', *Artificial Intelligence and International Human Rights Law* (2024) 212.

[10] In October 2024, a new case challenging the social security risk model was filed in France. *LQDN et al v Caisses d'Allocations Familiales (Memorial)* (Conseil d'État (France)). NGOs reported on potential discriminatory impacts of digital welfare system used in Denmark. 'Denmark Faces Backlash over AI Welfare Surveillance' (*Digital Watch Observatory*, 19 November 2024) <https://dig.watch/updates/denmark-faces-backlash-over-ai-welfare-surveillance> accessed 28 November 2024.

standing provisions impacted the ability of individuals to challenge risk models deployed by the two States.

For clarity, I will use the term *'*algorithmic harm', by which I understand a harmful result on individual of algorithmic decision-making process that is not justified by law. Several challenges pertain to defining algorithmic harm vis-à-vis harm in general. Firstly, the notions of harm, victim and burden of proof are blurred. The practice of harm in algorithmic decision-making processes is difficult to capture in a legally required way by an individual victim. In contrast, 'traditional' reflections of harm have been captured through tangible and explainable actions or decisions against a particular individual. With the scale of deployment of algorithms and their non-transparent nature, detecting harmful practices against whole collectives becomes challenging. Algorithmic harm is more prone to result in collective harm, which challenges the legal standing provisions that usually require establishing a specific legal interest in a case. Additionally, the traditional paradigm of legal responsibility focuses on evaluating the human action. The use of algorithmic decision processes blurs responsibility among many actors (from designers, developers, to final users of algorithms, among others).[11] Following Tetyana (Tanya) Krupiy's argument on AI decision-making **processes***,* instead of systems, the term algorithmic decision-making **processes** will be used to catch multi-dimensional relations between an agent and an individual in legal protection schemes.[12]

This work is structured in three parts. **Results** present cases where an argument of algorithmic harm was raised at various levels of auditing the algorithmic decision-making processes under the selected jurisdictions. In **Discussion**, I explore legal standing in procedures challenging State's deployment of algorithmic decision-making processes. **Conclusions** indicate that the way in which procedures for challenging public entities' decisions is structured in domestic jurisdictions will significantly impact the ability of individuals to litigate algorithmic harm in the future. Public interest litigation may by an optimal (but not ideal) path towards litigating algorithmic harm committed by States.

By utilizing a functional approach to comparative research, this study started with collecting cases concerning risk models that allegedly led to individual

[11] Xukang Wang and others, 'Algorithmic Discrimination: Examining Its Types and Regulatory Measures with Emphasis on US Legal Practices' (2024) 7 Frontiers in Artificial Intelligence; Zuiderveen Borgesius (n 8); Ignacio N Cofone, 'Algorithmic Discrimination Is an Information Problem' (2019) 70 Hastings Law Journal 1389.

[12] Tetyana (Tanya) Krupiy has argued that it is more productive in terms of inclusion, since it captures a broad range of processes that allows an understanding of how the system is structured and operates. Tetyana (Tanya) Krupiy, 'A Vulnerability Analysis: Theorising the Impact of Artificial Intelligence Decision-Making Processes on Individuals, Society and Human Diversity from a Social Justice Perspective' (2020) 38 Computer Law & Security Review 105429.

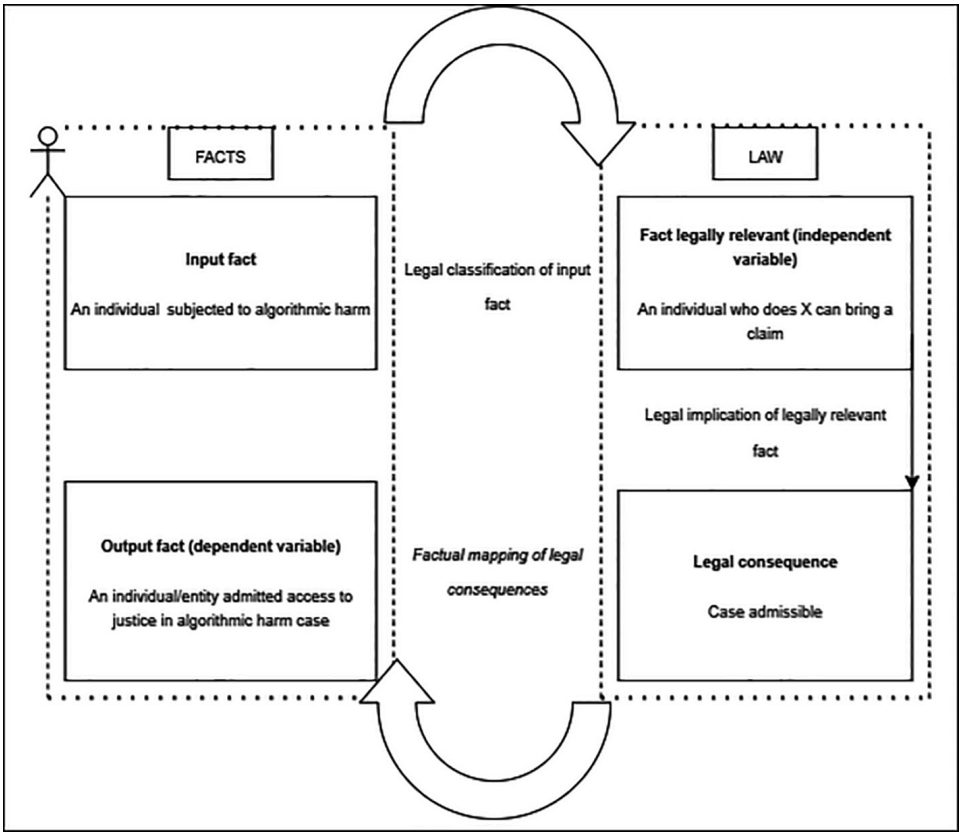

Diagram 1: A normative model for access to justice concerning legal standing in algorithmic harm cases

harm in the selected domestic jurisdictions. The functional approach applied here focused not on rules but their effects in judicial decisions as responses to the same real-life situation of algorithmic harm. The selected domestic bodies fulfil a similar function of monitoring effects of algorithmic decision-making on individuals. The aim of this functional approach to comparative study is to find a 'better-law comparison' which fulfils its access to justice function better than the others.[13] Case-law databases of the two States[14] were searched with the following keywords: 'algorithm', 'Artificial Intelligence', 'risk model', 'fraud detection'. The results were limited to the period of 2015-2024. The cases were

[13] Ralf Michaels, 'The Functional Method of Comparative Law' in Mathias Reimann and Reinhard Zimmermann (eds), *The Oxford Handbook of Comparative Law* (Oxford University Press 2019) 342.

[14] The searched databases were: for Australia – https://www.austlii.edu.au/databases.html; for The Netherlands – https://www.rechtspraak.nl/.

analyzed from the perspective of arguments used to support or reject algorithmic harm, without any prior assessments of the arguments' relevance. It allowed to induce and label three tools used during the procedure, namely: 1) legal standing; 2) burden of proof; 3) access to information. Although burden of proof and access to information have been the primary procedural obstacle to litigating algorithmic harm, both were already widely analysed in the literature.[15] To pursue an in-depth quality research and limit the scope of the paper, I selected legal standing as less widely recognised despite being an entry point for the admissibility criteria in a case.

In the diagram below, I describe the relationship between independent and dependent variables used for the functional approach to the comparative study. "X" in the independent variable refers to what an individual or an entity must demonstrate to be eligible to bring a claim in algorithmic harm case. Independent variables mean the cause of the researched phenomenon that can be manipulated to explore the effects of such manipulation (therefore, to explore dependent variables). In contrast, dependent variables mean the effect of the researched phenomenon and can change as a result of the manipulation performed on the independent variable.[16]

2. RESULTS: ADDRESSING ALGORITHMIC HARM THROUGH LEGAL STANDING

The following section presents cases from the Netherlands and Australia with the overall description of both legal standing provisions and outcomes of the case.

[15] Hilde Weerts and others, 'Algorithmic Unfairness through the Lens of EU Non-Discrimination Law', *FAccT Conference 2023* (ACM 2023) <https://hal.science/hal-04244693> accessed 28 October 2024; Jack Maxwell and Joe Tomlinson, 'Proving Algorithmic Discrimination in Government Decision-Making' [2020] Oxford University Commonwealth Law Journal <https://www.tandfonline.com/doi/abs/10.1080/14729342.2020.1833604> accessed 28 October 2024; Ljupcho Grozdanovski, 'In Search of Effectiveness and Fairness in Proving Algorithmic Discrimination in EU Law' (2021) 58 Common Market Law Review <https://kluwerlawonline.com/api/Product/CitationPDFURL?file=Journals\COLA\COLA2021005.pdf> accessed 28 October 2024; Tambiama Madiega, 'Artificial Intelligence Liability Directive' (European Parliamentary Research Service 2023) Briefing PE 739.342 <https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739342/EPRS_BRI(2023)739342_EN.pdf> accessed 28 October 2024.

[16] Dr Sanvedi Rane and others, *Research Management And Methodology* (AG PUBLISHING HOUSE (AGPH Books) 2022) 78–79; John W Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (SAGE 2013) 52.

2.1. THE SYRI CASE (2020)

The Dutch law obliges public entities to act in accordance with higher order law that embraces the EU law and state obligations under international law, including the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR)[17] and the EU General Data Protection Regulation (GDPR).[18] Since Dutch law is monistic with international law, case-law of the European Court of Human Rights binds domestic public entities. In the context of data processing, the right to respect for private life under Article 8 of the ECHR also embraces the right to equal treatment in equal cases and the right to protection against discrimination, stereotyping and stigmatization.[19] As an EU regulation, the GDPR is directly applicable and has precedence over domestic legislation in the EU Member States. Article 22 of the GDPR contains the right of an individual not to be subjected to a decision based solely on automated processing which produces legal effects concerning them or similarly significantly affects them. Article 24 of the GDPR sets an obligation for data controllers to take account of the risks of varying severity for the rights and freedoms of natural persons when processing data. The Guidelines on Automatic individual decision making and profiling for the purposes of the GDPR explain that, for data processing, to significantly affect someone, the effects must be sufficiently great or important to be worthy of attention, including excluding or discriminating individuals.[20]

The procedure allows individuals to directly rely on the ECHR before domestic courts. Legal standing depends on establishing an interest in the outcome of the proceedings. Legal standing for individuals and civil society groups is regulated in Book 3 of the Dutch Civil Code. According to S. 303 of the code, 'without sufficient interest no one has a right of action'. In case of data processing, an individual must, therefore, prove or make a plausible case for a sufficient concrete and personal interest in the case, and demonstrate the existence of a possible concrete connection between his or her private life, including possibly his or her

[17] European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by Protocols Nos 11 and 14, adopted 4 November 1950, entered into force 3 September 1953 [213 UNTS 221].

[18] Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) 2016 [Official Journal of the European Union L 119/1].

[19] *S and Marper v the United Kingdom* [2008] ECtHR [GC] 30562/04, 30566/04.

[20] 'Guidelines on Automated Individual Decision-Making and Profiling for the Purposes of Regulation 2016/679 (Wp251rev.01)' (The Working Party on the Protection of Individuals with regard to the Processing of Personal Data 2017) <https://ec.europa.eu/newsroom/article29/items/612053> accessed 27 November 2024.

professional activity and data processing. Book 3 Section 305a of the Dutch Civil Code enables civil society interest groups to bring claims against public entities. It states that 'a foundation or association with full legal capacity can institute legal proceedings aimed at protecting similar interests of other persons, insofar as it represents these interests in accordance with its articles of association and these interests are sufficiently safeguarded'.[21]

The case *NJCM et al. v De Staat der Nederlanden*[22] by The Hague District Court concerned the System Risicoindicatie (SyRI). SyRI was a legal instrument and technical infrastructure used by the Dutch government in cooperation with certain government bodies to prevent and combat fraud in social security, income-dependent schemes, taxes and labour laws. It relied on a risk model covering predominantly 'problem districts' – areas with higher concentrations of vulnerable groups – to detect the risk of irregularities. Data was linked and analyzed anonymously in a secure environment to generate risk reports. The system generated risk reports about individuals that could result in further investigations by a human. The reports were kept for two years, and individuals were not informed once the report about them was generated, nor did they have any insight into how the system made a decision. Several NGOs and two Dutch citizens submitted claims to The Hague District Court. The claims challenged the government's use of SyRI under Article 8 of the ECHR. In this case, the court considered the interplay between three frameworks that could address the public use of algorithmic decision-making processes: data protection law, human rights law, as well as accountability and the transparency of algorithmic decision-making.[23]

Even though the court admitted the NGOs as having a legal interest in bringing proceedings (a unique support base of individuals or groups whose human rights have been violated as acting in the public interest, which is allowed in the Dutch Civil Code), it refused to consider the same claims brought by the two individuals. Their legal standing was denied due to insufficient demonstration of a concrete and personal interest.[24]

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[21] Burgerlijk Wetboek Boek 3 1992.

[22] *NJCM c.s v De Staat der Nederlanden (SyRI), Judgment* [2020] The Hague District Court ECLI:NL:RBDHA:2020:1878.

[23] These are also frameworks that equipped both parties to a case with specific tools to address their claims. Marvin van Bekkum and Frederik Zuiderveen Borgesius, 'Digital Welfare Fraud Detection and the Dutch SyRI Judgment' (2021) 23 European Journal of Social Security 323.

[24] The court would expect the two individuals to have demonstrated 'concrete reference points from which it may have been followed that data pertaining to them form part of processing in SyRI' (para 6.15).

2.2. *PRYGODICZ ET AL. V COMMONWEALTH* OF AUSTRALIA (2021)

Class actions against public entities are allowed under the Australian law based on Part IVA of the Federal Court of Australia Act. S. 33D of the act states that a person 'who has sufficient interest to commence a proceeding on his or her behalf against another person has a sufficient interest to commence a representative proceeding against that other person on behalf of other persons'.[25] S. 33C1(a)-(c) of the act further sets forth the legal standing of (at least 7) persons who 'bring a claim against the same person, provided that the claims of all those persons are in respect of, or arise out of, the same, similar or related circumstances, and the claims of all those persons give rise to a substantial common issue of law or fact'. For social security claims, actions can be brought on unjust enrichment or a common law tort in negligence for damages. The unjust enrichment claim relies on the defendant having received enrichment without lawful basis when an applicant paid the defendant a mistaken payment and/or the payment was made by compulsion or duress under colour of statutory power and authority. A negligence claim is based on a defendant's breach of duty of care to an applicant who, as a result, suffered loss and damage. The common law tort claim can embrace economic loss and distress damages for associated stress, anxiety and stigma.

The Commonwealth of Australia deployed an automated debt-collection system to recover social security payments that had been overpaid, called Robodebt (Social Security Debt Collection). By deploying data matching, the system was calculating and sending a report – without meaningful human intervention – to individuals claiming that there was a difference between the income information obtained from the Australian Taxation Office and that used by an app called Centrelink. Robodebt wrongly identified individuals, which, given the scale of deployment, led to systematic errors in calculations. The risk model disproportionately impacted indigenous people, the elderly, and people with disabilities.[26] In this case, a lack of understanding and transparency played a pivotal role in Robodebt's failure, since individuals could not access and understand how the system calculated them as risk individuals.[27]

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[25] Federal Court of Australia Act 1976 (Cth).

[26] All of these groups belong to those usually more dependent on welfare care. Tapani Rinta-Kahila and others, 'Managing Unintended Consequences of Algorithmic Decision-Making: The Case of Robodebt' [2023] Journal of Information Technology Teaching Cases 20438869231165538, 3; Samuel Naylor, 'Robodebt, Kafka and Institutional Absurdism in Australia' (2023) 48 Alternative Law Journal 299, 301.

[27] In terms of transparency, in particular, publicly available error rates in the applied calculating method were not available. Yee-Fui Ng, Maria O'Sullivan and Moira Paterson, 'Revitalising

Based on two claims of unjustified enrichment and a common law tort in negligence for damages, a class action lawsuit was filed in 2019 by a law firm on behalf of six applicants and other registered lawsuit members. Because of the unavailable litigation funding, the law firm filed the case on a no-win, no-fee basis.

The Commonwealth of Australia admitted that no proper legal basis existed to raise, demand or recover asserted debts. It raised a defence of a 'juristic reason' to retain enrichment and deny restitution for the applicants or group members. The juristic reason relied on the presumption that the defendant believed that these recovered amounts were, in fact, owed by the individuals under other debts to the Commonwealth. According to the defendant, once the juristic reason was raised, the applicants had to prove the basis for retention. The court dismissed the defence by concluding that it was up to the defendant to prove the existence of these alleged debts and that retention was not unjust (para 151 and 153 of the Reasons for judgment). The design of Robodebt was flawed, since it relied on a presumption that all individuals had a stable or constant income. By contrast, many social security recipients did not have a stable wage (Robodebt's assessment relied on fortnightly income), and were part-time, sessional or intermittent employees.[28] The deployment context was also challenging because many reported individuals experienced not only financial hardship, but also anxiety, distress, and even suicide. The legal standing was determined by the class action nature of the lawsuit. It required that the claims were made, or could be made, against a defendant by all those in the groups identified in the proceeding (para 129 of the Reasons for judgment).

3. DISCUSSION: BETWEEN ACCESS TO JUSTICE AND LEGAL STANDING IN LITIGATING ALGORITHMIC HARM

In both cases, there were at least two groups of subjects whose ability to stand before a court became relevant for the final outcome, namely 1) affected individuals, and 2) civil society groups. In cases of widespread harm facilitated by algorithms, the role of civil society groups is entirely different from the aim individuals may have in the procedure. For the former, it is usually easier to demonstrate

Public Law in a Technological Era: Rights, Transparency and Administrative Justice' (2020) 43 UNSW Law Journal 1068–69.

[28] Dennis Trewin, Nicholas Fisher and Noel Cressie, 'The Robodebt Tragedy' (2023) 20 Significance 18.

legal standing in cases falling into the category of general public interest (where domestic law allows for *actio popularis* or representing affected groups in collective actions) vis-à-vis State actions that involve mass groups of individual victims.

In the case of Robodebt, in order to challenge the risk model and receive remedies, individual victims decided to raise claims of unjust enrichment and negligence resulting from vulnerability based on their economic situation and had to prove the inflicted tangible harm (financial loss).[29] This independent variable was further supported by the legal representation by a law firm on a no-win no-fee basis. Therefore, identifying victims for unjust enrichment purposes was easier because the victims had experienced an abuse of their vulnerability and a tangible (financial) loss as well as could utilise the legal aid without necessarily paying costs of the case. Class actions is a path to access justice by individuals themselves when they unite to challenge decisions made by public entities. Even though the purpose of this process could be focused on revealing truth about the algorithmic decision-making process, it is primarily focused on accessing remedies for the algorithmic harm. Additionally, the involvement of the law company on a no-win no-fee basis (such as demonstrated in the Robodebt case) can be vital for individuals to challenge public entities' decisions and reduce information and resource asymmetries. As noted by the court in the Robodebt, filing a case on such basis due to limited or unavailable litigation funding enabled victims to access justice.

In SyRI, individuals were denied legal standing for data protection violations but NGOs were not. However, the procedure did not aim at paying compensation to victims but rather at removing the SyRI's deployment from the legal procedures. This strategy shaped the independent variable, namely public interest litigation, and the dependent variable (access to justice) was affected by it. The engagement of NGOs in public interest litigation was focused on annulling the risk model rather than seeking justice for individual victims (who were denied legal standing) in their own name. *Actio popularis* enables certain entities to bring cases, without necessarily having identifiable individual victims, to a court in the public interest. NGOs serve a wider interest and engage in cases of collective harm to represent the common good on their behalf. Their actions can produce positive results for everyone (and not for single identifiable victims) and safeguard future algorithmic decision-making processes that public entities would like to deploy. The consequence is naturally to determine what the common good is in the specific case.

[29] The notion of vulnerability is broader than discrimination. Paolo De Stefani has argued that 'compared with the human rights language, "vulnerability" better articulates the relationship between legal categories and rapidly changing social and ecological landscapes.' Paolo De Stefani, 'Conceptualizing "Vulnerability" in the European Legal Space: Mixed Migration Flows and Human Trafficking as a Test' (2022) 4 Frontiers in Human Dynamics.

Public entities may argue that deploying an algorithmic decision-making system is crucial to protect collective interests of the whole State population. However, the collective interests of the State cannot fully justify the resulting algorithmic harms. The role of NGOs is, therefore, to assist public entities in demonstrating that these collective interests should be integrated with reducing or preventing algorithmic harms.

Introducing or utilizing a more open legal standing rules or opening up to free legal aid would remedy the obstacles individuals face when litigating risk models against States. Not every victim of algorithmic harm can file a complaint on their own since litigation is usually a long, expensive and expert-based process with no guarantee of winning. The limited resources individuals possess are particularly problematic when confronted with public entities in the procedure. Public entities usually have access to the whole picture of algorithmic decision-making processes, financial resources and experts.

Therefore, the engagement of meaningful civil society representatives remains crucial for detecting and bringing the case of algorithmic harm and, more broadly, for remedying information and power asymmetries. When the position of NGOs is weak (especially in developing or authoritarian States), members of NGOs are repressed, or NGOs have limited (legal, human, and financial) resources, a claim of algorithmic harm and defence of affected groups would be extremely difficult to raise.[30] The engagement of NGOs in litigating algorithmic harm can support legal mobilization processes in which individuals or entities invoke legal norms and arguments to influence mass-scale State conduct. This may explain why, for example, the EU anti-discrimination directives include an obligation to encourage dialogue with NGOs that have a legitimate interest in contributing to the fight against discrimination.[31] This legal mobilization of NGOs that are recognized partners in social, political and economic processes concerning algorithmic discrimination may, therefore, be aimed at annulling or modifying the algorithmic decision-making process.[32] However, the diverse applications of algorithmic decision-making processes heavily impact the mandate and potential legal standing of particular NGOs in litigation. This diversion requires NGOs

[30] Mark Aspinwall, 'Legal Mobilization without Resources? How Civil Society Organizations Generate and Share Alternative Resources in Vulnerable Communities' (2021) 48 Journal of Law and Society 202.

[31] For example, Council Directive 2000/43/E.C. of 29 June 2000 Implementing the Principle of Equal Treatment between Persons Irrespective of Racial or Ethnic Origin 2000, Vol 43, Article 12; Lejeune and Ringelheim 2022, 7.

[32] Aude Lejeune and Julie Ringelheim, 'The Differential Use of Litigation by NGOs: A Case Study on Antidiscrimination Legal Mobilization in Belgium' (2022) 48 Law & Social Inquiry 1, 2–4, 28; Maranke Wieringa, '"Hey SyRI, Tell Me about Algorithmic Accountability": Lessons from a Landmark Case' (2023) 5 Data & Policy e2, 15.

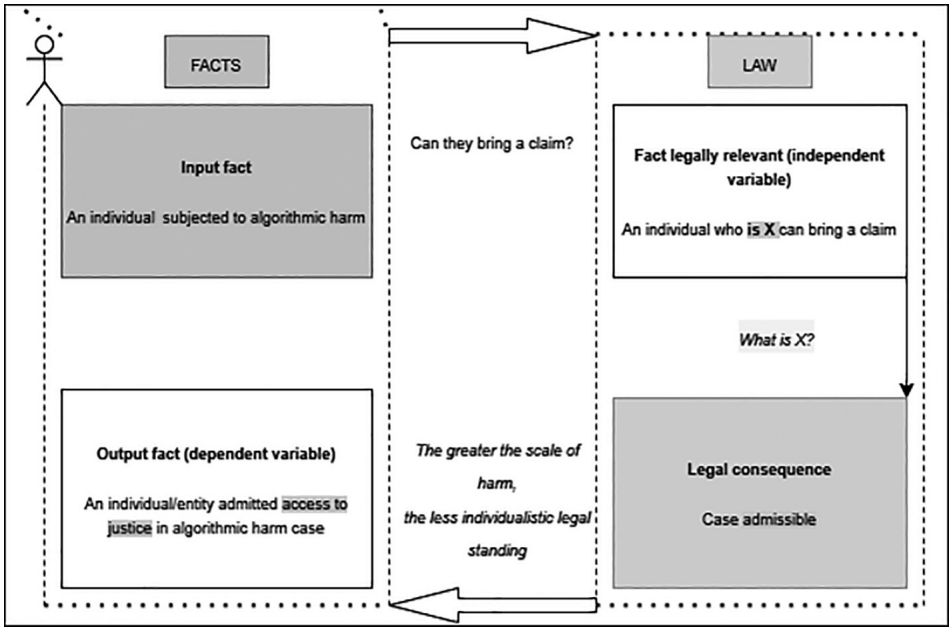

Diagram 2: An optimal shape of legal standing to litigate algorithmic harm.

to specialize in particular types of litigation concerning algorithms, including developing the necessary technological expertise.

Additionally, when reflecting on the obstacles to legal standing, Anne L. Washington notes that, once classified in an algorithmic decision-making process, individuals struggle significantly with re-negotiating their identities,[33] particularly concerning false positives (a person is mistakenly classified as falling into a risk group) as well as errors and data correlations to protected characteristics.[34] They become no longer socially, but system-classified individuals who only share similar (but not all) attributes or characteristics to the general population of fraudsters.[35] Risk models are tested and trained in cross-cultural and group-based

[33] Anne L Washington, 'How to Argue with an Algorithm: Lessons from the COMPAS-ProPublica Debate' (2018) 17 Colorado Technology Law Journal 131.

[34] Villasenor and Foggo 'Artificial Intelligence, Due Process and Criminal Sentencing' (2020) 2020 Michigan State Law Review 295, 332; Sascha van Schendel, 'The Challenges of Risk Profiling Used by Law Enforcement: Examining the Cases of COMPAS and SyRI' in Leonie Reins (ed), *Regulating New Technologies in Uncertain Times* (TMC Asser Press 2019) 233–234.

[35] Paz Peña and Joana Varon, 'Decolonising AI: A Transfeminist Approach to Data and Social Justice' in Association for Progressive Communications, Article 19 and Swedish International Developmeny Cooperation Agency, *Artificial intelligence: Human rights, social justice and development* (Global Information Society Watch 2019) 31 <https://giswatch.org/2019-artificial-intelligence-human-rights-social-justice-and-development> accessed 13 May 2022; Gideon Christian,

contexts, which can make them unreliable with specific variables describing individuals because psychological constructs may vary between groups.[36] Furthermore, algorithmic harm differs from other forms of harms in creating collectives that are not yet recognized by the law, leading to new forms of harm, including intersectional discrimination when an individual is simultaneously discriminated against on multiple grounds. For example, Paz Peña and Joana Varon have revealed some common grounds multiplying the challenges of algorithmic decision-making processes in Latin America, namely the significant number of indigenous peoples, migrant populations and poor people. According to Jenni Hakkarainen, algorithms create a distance between a victim and a perpetrator, complicating the litigation of harms, such as human rights violations. She has suggested that protection against algorithmic harm should not focus solely on individual complaints, but on *ex-ante* actions, including the availability of collective action.[37]

To conclude, due to the difficulties in challenging the category to which an individual victim has been classified, collective procedures are much more conducive to bringing algorithmic harm cases before a court than individual cases are. An open legal standing provision would not remedy all the challenges faced by victims of algorithmic harm though. It could mainly reduce or eliminate the algorithmic decision-making process without necessarily addressing individual harms. Therefore, legal systems that have sufficiently flexible and open rules on legal standing are better suited to a move towards an e-government mainly because of the massive scale of algorithmic decision-making processes vis-à-vis the individualistic nature of harm. The diagram above summarizes the findings with X being the availability of legal standing based on the collective action.

4. CONCLUSIONS

Public scrutiny over algorithmic decision-making processes demonstrates the relevance of thorough analysis for an e-government attracted by new technolo-

'Legal Framework For The Use Of Artificial Intelligence (AI) Technology In The Canadian Criminal Justice System' 18 <https://papers.ssrn.com/abstract=4712508> accessed 10 April 2024; Eva Schmidt, Andreas Sesing-Wagenpfeil and Maximilian A Köhl, 'Bare Statistical Evidence and the Legitimacy of Software-Based Judicial Decisions' (2023) 201 Synthese 134, 134.

[36] Leticia Gutierrez, 'Walls of Red Wing: An Examination of Culturally-Informed Sentencing, Risk/Need Factors, and Treatment for Peoples of Indigenous Heritage in Canada's Criminal Justice System' (Carleton University 2018) 230–231; Christian (n 37) 16. Andrew Haag and others, 'An Introduction to the Issues of Cross-Cultural Assessment Inspired by Ewert v Canada' (2016) 3 Journal of Threat Assessment and Management 65, 66.

[37] Hakkarainen (n 8) 4, 7, 18.

gies. The contexts of deploying algorithmic decision-making processes become problematic when public authorities use algorithmic decision-making systems on a mass scale to produce tangible consequences for the addressees of these processes. This paper sought for clarifying legal standing provisions in two jurisdictions that decided to deploy the algorithmic decision-making process in social security domains. The lack of protection against algorithmic harm could result from the shape of the procedure in domestic litigation of risk models. The protection against algorithmic harm is affected by the shape of domestic procedures that can be hardly utilized to address mass scale deployment of risk models. Given the peculiar features of algorithmic decision-making processes, individuals would face significant difficulties in meeting the procedural thresholds for challenging risk models deployed by public entities. Legal standing forming a part of access to justice is a prerequisite for an individual to enforce their protection against algorithmic harm. If legal standing provisions were open towards collective action, the individual negative effects of deploying risk models could be better addressed.

Further research is needed to develop a review model for an algorithmic harm claim that addresses the equality of parties and access to justice more broadly. With the increasing move towards e-governments, it would strengthen the protection of individuals against algorithmic harm. In this context, civil society and academia provide necessary safeguards (including direct involvement in litigation to support providing feedback on the social effects of algorithmic decision-making processes) and early warning mechanisms that support victims of algorithmic harm and mitigate harmful State practices.

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LIST OF LEGISLATION

European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by Protocols Nos 11 and 14, adopted 4 November 1950, entered into force 3 September 1953 [213 UNTS 221]

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