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Consciousness over Code: How Judicial Review can Address Algorithmic Decision-Making in Policing

Harriet Green

Abstract

Algorithmic decision-making (ADM) systems have the potential to improve operational efficiency in policing by streamlining decision-making, swiftly analysing intelligence, and maximising the effective allocation of resources. However, integration of these systems into the discretionary decision-making process raises concerns regarding their compatibility with lawful decision-making practices. Discretionary decision-makers must exercise their statutory powers *themselves*,[1] and integrating an ADM system (ADMS) into the discretionary decision-making process risks potential interference with human discretion.[2] Currently, there is no legal framework that specifically governs the use and regulation of ADMS.[3] This article explores how the courts could step in to help embed high standards and issue guidance so that police discretionary decision-makers may use these systems lawfully. It examines how the courts, through judicial review, could apply the non-fettering and non-delegation principles to shape the legal framework for ADMS use in policing contexts in England and Wales. It critically applies these principles to real-life examples of police using ADMS in discretionary decision-making contexts to investigate how these principles can be adapted to guide lawful machine-assisted decision-making. The article concludes that the application of these principles reveals important questions for the courts to address, including: if, and how, machines can occupy an advisory role, how human decision-makers can evidence independent judgement when using

[1] Denis J Galligan, *Discretionary Powers: A Legal Study of Official Discretion* (OUP 1990).

[2] Reuben Binns, Lilian Edwards and Rebecca Williams, 'Legal and Regulatory Frameworks Governing the Use of Automated Decision Making and Assisted Decision Making by Public Sector Bodies' (2021) TLEF Working Paper <https://research.thelegaleducationfoundation.org/wp-content/uploads/2021/07/FINAL-Legal-and-Regulatory-Frameworks-Governing-the-use-of-Automated-Decision-Making-and-Assisted-Decision-Making-by-Public-Sector-Bodies-1.pdf> accessed 6 June 2024.

[3] Marion Oswald, 'Algorithm-Assisted Decision-Making in the Public Sector: Framing the Issues Using Administrative Law Rules Governing Discretionary Power' (2018) Philosophical Transactions of the Royal Society A 376; Binns, Edwards and Williams (n 2).

ADMS, the impact of bias in ADM processes, how ADM outcomes can be interpreted, and how strictly ADM outcomes may be applied.

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1 Introduction

Scholarship surrounding the use of ADM systems (ADMS) in public body decision-making contexts has identified judicial review (JR) as a toolkit[4] to build a legal framework for the lawful use of these systems. However, there is currently insufficient research that applies specific JR principles to the use of ADMS in a policing context. Thus, this article will critically examine how JR, through the application of the non-fettering[5] and non-delegation[6] principles, could help shape a framework for the lawful use of ADMS in a police discretionary decision-making context in England and Wales. To illustrate this argument, this article draws upon real-world examples of ADMS that have been used in police discretionary decision-making contexts.

The adoption of ADMS is widespread across public bodies in the United Kingdom (UK), and particularly in the policing sector. This is unsurprising given the crisis that the criminal justice system faces. Insufficient funding, the continual closure of courts, cuts to Legal Aid, and staff shortages have put pressure on police officers and staff to do more with less.[7] The growing sophistication of algorithmic[8] tools,[9] has led police forces towards data-driven[10] policing

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[4] Rebecca Williams, 'Rethinking Administrative Law for Algorithmic Decision Making' (2021) 42 OJLS 2.

[5] *Carltona v Commissioners of Works* [1943] 2 All ER 560; *R (CCWMP) v Birmingham Justices* [2002] EWHC 1087, [2002] Crim LR 37; *R v Inhabitants of Leake* (1833) 5 B & Ad 469; *British Oxygen v Minister of Technology* [1971] AC 610.

[6] *Lavender Son ltd v Minister of Housing and local Government* [1970] 3 All ER 871; *R v London Borough of Tower Hamlets ex parte Khalique* [1994] 26 HLR 517; *Noon v Matthews* [2014] EWHC 4330 (Admin).

[7] The Bar Council, 'Access Denied: The State of the Justice System in England and Wales in 2022' (*The Bar Council*, November 2022) <www.barcouncil.org.uk/static/88a28ac3-5866-4d73-99ecb9b05c03c815/Bar-Council-Access-denied-November-2022.pdf> accessed 5 January 2023.

[8] For the purposes of this article, *algorithmic decision-making* is defined as: the automation of any human decision-making process, through the application of technology. The algorithm processes the data held by the organisation deploying the ADM system, and will reach a decision/outcome through the process of data analytics.

[9] For the purposes of this article, *algorithm* is defined as: a coded formula that, when triggered, will accomplish a given purpose under given instruction. The types of algorithmic systems relevant to this article are predictive algorithms; Alexander Babuta, 'Big Data and Policing' (2017) RUSI.

[10] For the purposes of this article, *data* is defined as: any information that has been translated into a format that is conducive for 'movement or processing'. *Data-analysis* refers to the computational analysis of data which seeks to discover, interpret, and communicate meaningful patterns in data.

(where forecasting ADMS inform police action) to improve efficiency, consistency, and accuracy in decision-making, thereby relieving operational burdens.[11]

However, despite widespread adoption of ADMS, there is no cross-departmental strategic approach from the Government for overseeing the use of these systems,[12] nor a legal framework that specifically governs their use and regulation.[13] Pilot guidance documents, such as the Transparency Standard[14] and Ethical Framework,[15] have been published to guide the use of ADMS by public bodies, but these are not legally binding nor sufficient. Similarly, the legislation most relevant in regulating the operation of these systems, the UK General Data Protection Regulation (GDPR) 2018,[16] and the Data Protection Act 2018,[17] are untested in an ADM context.[18] The Equality Act 2010[19] and the Human Rights Act 1998[20] have been successfully used to challenge instances of algorithmic bias, discrimination, and a breach of privacy rights.[21] However, whilst bringing cases under these pieces of legislation (rightfully) attacks the substantive outcome of the decision itself (ie, the breach of an individual's rights), it does not address the question of how ADMS might be *used* lawfully.

Furthermore, the decentralised structure of policing in England and Wales, accompanied by the insufficient regulatory framework for police using ADM,[22] means that there is no standardised approach to tackle potential unlawful decision-making *before* it happens.[23]

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[11] Ibid.
[12] Parliament UK, 'Technology Rules? The Advent of New Technologies in the Justice System' (*GOV UK*, 30 March 2022) <https://publications.parliament.uk/pa/ld5802/ldselect/ldjusthom/180/18004.htm> accessed 10 December 2022.
[13] Oswald (n 3) 376; Binns, Edwards and Williams (n 2).
[14] Elena Hess-Rheingans and Lara Bird, 'Developing the Algorithmic Transparency Standard in the open' (*GOV UK*, 10 October 2022) <https://rtau.blog.gov.uk/2022/10/10/developing-the-algorithmic-transparency-standard-in-the-open/> accessed 1 December 2022.
[15] Cabinet Office, Central Digital & Data Office, and Office for Artificial Intelligence, 'Ethics, Transparency and Accountability Framework for Automated Decision-Making' (*GOV UK*, 13 May 2021) <www.gov.uk/government/publications/ethics-transparency-and-accountability-framework-for-automated-decision-making/ethics-transparency-and-accountability-framework-for-automated-decision-making> accessed 10 December 2022.
[16] UK General Data Protection Regulation (GDPR) 2018.
[17] Data Protection Act 2018.
[18] Binns, Edwards and Williams (n 2).
[19] Equality Act 2010.
[20] Human Rights Act 1998.
[21] Amnesty International, 'Trapped in the Matrix: Secrecy, Stigma, and Bias in the Met's Gangs Database' (*Amnesty International*, May 2018) <www.amnesty.org.uk/files/reports/Trapped%20in%20the%20Matrix%20Amnesty%20report.pdf> accessed 18 January 2023; *Ed Bridges v The Chief Constable of South Wales Police* [2020] EWCA Civ 1058.
[22] Williams (n 4) 2.
[23] Centre for Data Ethics and Innovation, 'Review into Bias in Algorithmic Decision-Making' (*GOV UK*, November 2020)

Instead, each police force is responsible for developing their own policies for utilising ADMS.[24] Thus, it is of the upmost importance to address this gap within the regulatory framework.

The courts are uniquely placed to establish doctrinal principles to shape standards, outline obligations and offer guidance for public body decision-making.[25] As such, this article argues that the courts have considerable powers to inform the foundations of the developing legal framework surrounding the lawful use of ADMS in policing. This article adopts a doctrinal approach,[26] viewing public law as a toolkit[27] with established principles for lawful decision-making that may be adapted to guide police's lawful use of ADMS.

This article chooses the ground of illegality for review because it necessitates that decision-makers correctly understand and exercise their statutory powers,[28] making it most applicable to scrutinise a human decision-makers' use of ADMS. The non-fettering[29] and non-delegation[30] principles, which are sub-grounds of illegality, are most relevant to the use of ADMS because they fundamentally address the extent to which a discretionary decision-maker can utilise the outcomes of ADMS lawfully.

While acknowledging that legislation and supplementary guidance will also be necessary in regulating the use of ADMS, this article argues that the courts can still inspire principles for best practice within the developing legal framework. It concludes that the courts have the potential to adapt the non-fettering and non-delegation principles of lawful human decision-making to address the use of ADMS in policing, thereby entrenching best-practice into the developing legal framework for these systems.

2 Algorithmic Decision-Making: What is it?

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957259/Review_into_bias_in_algorithmic_decision-making.pdf> accessed 25 October 2022.

[24] Ibid.

[25] Mark Elliott and Robert Thomas, *Public Law* (4th edn, OUP 2020).

[26] P Ishwara Bhat, *Idea and Methods of Legal Research* (OUP 2019).

[27] Williams (n 4) 2.

[28] Per Lord Diplock in *Council of Civil Service Unions v Minister for the Civil Service* [1984] UKHL 9.

[29] *Carltona v Commissioners of Works* [1943] 2 All ER 560; *R (CCWMP) v Birmingham Justices* [2002] EWHC 1087, [2002] Crim LR 37; *R v Inhabitants of Leake* (1833) 5 B & Ad 469; *British Oxygen v Minister of Technology* [1971] AC 610.

[30] *Lavender Son ltd v Minister of Housing and local Government* [1970] 3 All ER 871; *R v London Borough of Tower Hamlets ex parte Khalique* [1994] 26 HLR 517; *Noon v Matthews* [2014] EWHC 4330 (Admin).

The term ADM refers to the automation (in full or in part) of human decisions.[31] Algorithmic decision-making systems assist by identifying meaningful patterns[32] in data, which entails: cross-comparing data from large datasets, identifying points of correlation (or, to some extent, causation), and then generating a predictive outcome.[33] As such, ADM, more broadly, is a socio-technical process;[34] with human programmers and end-users working at the creation and operational stages, as well as the machine itself generating outcomes that assist the organisation and operation of human actors.[35]

In a policing context, predictive ADMS are often used to assist discretionary decision-makers by predicting a certain risk and the likelihood of that risk occurring.[36]

3 Judicial Review and the Lawful Use of ADM

Judicial Review (JR) is a crucial component of the democratic system that plays a vital role in overseeing the exercise of public functions by public bodies.[37] This process involves examining the procedural aspects of decision-making, rather than the substantive outcome of a decision.[38] The law scrutinises the actions of natural or legal persons, placing legal responsibility on public entities and human decision-makers for any decisions that involve ADMS.[39] Police personnel, especially those granted with discretionary powers, bear responsibility for ensuring the lawful exercise of said powers.[40] Thus, JR has the potential to shape a framework for the lawful use

[31] Verena Bader and Stephan Kaiser, 'Algorithmic Decision-Making? The User Interface and Its Role for Human Involvement in Decisions Supported by Artificial Intelligence' (2019) 26 Organization 655.
[32] For the purposes of this article, *meaning patterns* are defined as: the presentation of data patterns in one of three ways- descriptively (existing data is simply presented in an understandable manner), predictively (existing data is used to generate a prediction of possible future events and their likelihood), and prescriptively (existing data is analysed to produce a recommendation).
[33] AI Business, 'Descriptive, Predictive & Prescriptive Analytics: What are the differences?' (*AI Business,* 10 September 2020) <https://aibusiness.com/data/descriptive-predictive-prescriptive-analytics-what-are-the-differences> accessed 25 October 2022.
[34] Jennifer Cobbe, Michelle Seng Ah Lee and Jatinder Singh, 'Reviewable Automated Decision-Making: A Framework for Accountable Algorithmic Systems' (2021) Conference on Fairness, Accountability, and Transparency (FAccT '21).
[35] Ibid.
[36] Zoë Hobson and others, 'Artificial Fairness? Trust in Algorithmic Police Decision-Making' (2021) 19 JEC 165–189.
[37] Raphael Hogarth, 'Judicial Review' (*Institute for Government*, 18 December 2019) <www.instituteforgovernment.org.uk/explainer/judicial-review> accessed 13 November 2022.
[38] *Council of Civil Service Unions v Minister for the Civil Service* [1985] AC 374.
[39] Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) 37 CUP 1–34
[40] Jennifer Brown, 'Police Powers: An Introduction' (*House of Commons Library*, 21 October 2021) <https://researchbriefings.files.parliament.uk/documents/CBP-8637/CBP-8637.pdf> accessed 20 October 2022.

of ADMS,[41] as well as offer guidance to discretionary police decision-makers on how to properly exercise their discretion while using these systems.

3.1 ADM: Grounds for Judicial Review

In an ADM context, there are two kinds of decisions that could be subject to JR: the decision to deploy an ADMS, and any subsequent decision it makes or assists.[42] This article asserts that JR of these types of decisions are most suited to the substantive grounds of illegality because this principle specifically requires that decision-makers 'understand correctly the law that regulates [their] decision-making powers and must give effect to it.'[43] As discretionary decision-makers are granted their powers by statute, they must honour this authority by exercising the powers *themselves*.[44] Thus, there is a question as to whether a discretionary decision-maker, who uses an ADMS in a decision-making context, is giving effect to their power or if said ADMS is impeding their discretion. Accordingly, the relevant sub-ground of illegality is the retention of discretion,[45] which comprises two principles: non-fettering[46] and non-delegation.[47] The decision-making processes of a nominated decision-maker may be judicially reviewed under the grounds of illegality if the decision-maker's discretion was fettered and/or delegated.[48]

3.1.1 Fettering of discretion

This principle asserts that a decision-maker who has been granted statutory discretionary powers is obligated to exercise those powers and cannot abstain from exercising their own discretion.[49] Accordingly, a decision-maker with discretionary powers must: consider the individual circumstances of the matter, keep an open-mind, and must not operate with

[41] Mark Elliot, 'Judicial Review's Scope, Foundations and Purposes: Joining the Dots' (2012) 75 NZLR University of Cambridge Faculty of Law Research Paper No. 3/2012.
[42] Binns, Edwards and Williams (n 2).
[43] Per Lord Diplock in *Council of Civil Service Unions v Minister for the Civil Service* [1984] UKHL 9.
[44] Galligan (n 1).
[45] Matt Hutchings, 'Delegation of Functions: Principles and Recent Perspectives' (2016) 21 JR 93–98; Galligan (n 1).
[46] *R v Secretary of State for the Home Department ex parte Fire Brigades Union* [1995] UKHL 3.
[47] *Lavender Son ltd v Minister of Housing and local Government* [1970] 3 All ER 871.
[48] *R v London Borough of Tower Hamlets ex parte Khalique* [1994] 26 HLR 517; *Noon v Matthews* [2014] EWHC 4330 (Admin).
[49] *R v Secretary of State for the Home Department ex parte Fire Brigades Union* [1995] UKHL 3.

rigidity.[50] The use of ADMS in policing poses a risk for decision-makers trying to exercise their discretion: as the decision-maker's independent, objective judgment is at risk of being swayed, or even superseded, by an algorithmic prediction.

3.1.2 Delegation of discretion

Delegatus non potest delegare (the delegate cannot delegate) refers to the well-established principle of statutory interpretation whereby a public body cannot delegate its responsibilities, including the decisions it makes.[51] The applicability of this principle is contingent upon the interpretation of the relevant statute, and whether the public body, in delegating their power, have conflicted the wording, purpose, and context of the statute.[52] Unless explicitly or implicitly allowed in statute,[53] the delegation of the authority of a decision-maker is considered unlawful.[54] While this principle is concerned with human delegation, it certainly has implications for ADMS. The police decision-maker who decisively acts upon the dictation of an ADMS, without putting their own mind to the matter at hand, is still delegating their discretion, albeit to a machine rather than a human.

3.2 ADM: Amenability to Judicial Review

To be granted permission to bring forth a claim, claimants must meet the preliminary requirements.[55] Approval to proceed is then granted at the court's discretion.[56]

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[50] Cobbe (n 39).
[51] Hutchings (n 45).
[52] LexisNexis, 'Grounds of Judicial Review—Illegality' (*LexisNexis*, 2024) <www.lexisnexis.co.uk/legal/guidance/grounds-of-judicial-review-illegality?utm_source=google&utm_medium=cpc&utm_campaign=BL_LN_retargeting_Search_RDSA|Legal_DSA&utm_content=103437&utm_term=&gad_source=1&gclid=Cj0KCQjwpNuyBhCuARIsANJqL9PaMfK0Q-0iqQL8oSmJTRPTJjX9aAkN6sRMzEwwA23AUapLHuLC7b8aAn2qEALw_wcB> accessed 13 November 2022.
[53] Ibid.
[54] Ibid.
[55] Ibid.
[56] Ibid.

Table 1 Summary of how the use of ADMS by a descretionary police decision-maker might be amenable to JR

Amenability requirement	Test	Application
The claim must concern a public law matter involving the act or omission of a public body.[57]	Whether the body exercises a public function, and the actor was exercising a public function at the time in question.[58]	Police bodies are public bodies, tasked with protecting and serving the public.[59] Where an on-duty officer uses an ADMS in the exercise of their discretionary decision-making power, they are exercising a public function on behalf of the public body.[60]
The claim must be justiciable.[61]	Whether the matter may be resolved through the application of legal standards.[62]	The principles of just decision-making are largely established by the courts. Thus, it is well within their remit to review how police decision-makers have used ADMS.[63]
The claimant must have standing (*locus standi*).[64]	The applicant must have 'a sufficient interest' in their claim.[65]	Individuals, *directly affected* by an ADM-informed decision, will possess a sufficient interest. Note: police use of ADMS has already been successfully reviewed.[66]

[57] LexisNexis, 'Judicial Review—What It Is and When It Can Be Used' (*LexisNexis*, 2024) <www.lexisnexis.co.uk/legal/guidance/judicial-review-what-it-is-when-it-can-be-used?utm_source=google&utm_medium=cpc&utm_campaign=BL_LN_retargeting_Search_RDSA|Legal_DSA&utm_content=103437&utm_term=&gad_source=1&gclid=EAIaIQobChMIu7-K0u-yhgMViY9QBh0SJgh-EAAYASAAEgJvJPD_BwE> accessed 20 November 2022.

[58] *R v Panel on Take-overs and Mergers; Ex parte Datafin plc* [1987] QB 815.

[59] Police Foundation and the Policy Studies Institute, 'The Role and Responsibilities of the Police' (1996) <www.police-foundation.org.uk/publication/inquiry-into-the-roles-and-responsibilities-of-the-police/> accessed 26 February 2023.

[60] Brown (n 40).

[61] Anne Dennett, *Public Law Directions* (2nd edn, OUP 2021).

[62] Ibid.

[63] Binns, Edwards and Williams (n 2).

[64] Dennett (n 61).

[65] Senior Courts Act 1981 s 31(3); Civil Procedure Rules Part 54; *R v IRC* [1982] AC 617; *R v Secretary of State for the Home Department, ex parte Venables and Thompson* [1997] UKHL 25; *R v Secretary of State for Foreign and Commonwealth Affairs, ex parte World Development Movement Ltd* [1995] 1 WLR 386.

[66] Hannah Couchman, 'Report: Policing by Machine' (*Liberty*, 1 February 2019) <www.libertyhumanrights.org.uk/issue/policing-by-machine/> accessed 21 February 2023.

3.3 Limitations to Judicial Review

Claimants must bring claims as soon as possible and within three months[67] and exhaust all alternative remedies, or the permission for a JR action will not be granted.[68] These rules have implications for cases relating to ADMS use.

Many individuals subject to ADM processes do not know that they are being subjected to them,[69] and may not know until the time limit has passed. Even where an individual does know, three months is very little time for individuals or pressure groups to gather evidence, hear back from Freedom of Information requests,[70] and build a case. In the context of challenging the decision-making processes of police, one alternative remedy would be to issue a formal complaint,[71] but one's ability to do so still depends on knowing one is subject to ADM processes.

Other significant barriers include high costs, heavily restricted Legal Aid, the need to exhaust alternative remedies,[72] and uneven access to the justice system.[73]

Judicial Review has the potential to establish new common law norms in relation to ADM and hence it is worth examining how JR principles might be applied in real-life examples. Nonetheless these limitations are a reminder that JR cannot be viewed as the *sole* redress to the gap in the regulatory framework concerning the lawful use of ADMS.

4 ADMS in Practice: The Harm Assessment Risk Tool (HART) and the Gangs Violence Matrix (GVM)

[67] Civil Procedure Rules Part 54.5(1)(b).
[68] *O'Reilly v Mackman* [1983] UKHL 1.
[69] Couchman (n 66); *O'Reilly v Mackman* [1983] UKHL 1.
[70] Ibid.
[71] Elliott and Thomas (n 25).
[72] *O'Reilly v Mackman* [1983] UKHL 1.
[73] Ibid.

This section will critically examine how the courts could apply the non-fettering and non-delegation principles to HART and GVM, ADMS that were used in separate police discretionary decision-making contexts, to guide the lawful use of ADMS.

4.1 What were the HART and GVM Systems?

HART was an ADMS used by the Durham Constabulary (DC)[74] to assist custody officers making decisions on whether to keep an individual in their custody, release them, or refer them to their out-of-court disposal program (Checkpoint).[75] Drawing from a dataset comprising 104,000 arrest and custody records spanning from 2008 to 2012,[76] HART predicted the likelihood of an individual reoffending within the next two years by cross-comparing the individual's data with its database.[77] HART would generate one of three possible outcomes: high-risk (the individual was highly likely to commit a new serious offence), moderate-risk (the individual was likely to commit a non-serious offence), and low-risk (the individual was unlikely to commit another offence).[78] These outcomes were then utilised by the custody officer responsible for making the decision.[79]

The DC have disclosed that HART used the Random Forest (RF) algorithm,[80] a forecasting algorithm that creates and combines numerous decision trees to make probability predictions.[81]

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[74] Centre for Public Impact, 'Durham Constabulary's AI Decision Aid for Custody Officers: A Case Study on the Use of AI in Government' (*Centre for Public Impact*, 2018) <www.centreforpublicimpact.org/assets/documents/ai-case-study-criminal-justice.pdf> accessed 19 December 2022.
[75] Ibid.
[76] Ibid.
[77] Cambridge University, 'Helping Police Make Custody Decisions Using Artificial Intelligence' (*Cambridge University*, 26 February 2018) <www.cam.ac.uk/research/features/helping-police-make-custody-decisions-using-artificial-intelligence> accessed 19 December 2022.
[78] Ibid.
[79] Ibid.
[80] Best Practice AI, 'Durham Police Constabulary improves custody decisions by predicting whether offenders will re-offend using machine learning that results in 98% avoidance of false negatives' (*Best Practice AI*, 2022) <https://www.bestpractice.ai/ai-case-study-best practice/durham_police_constabulary_improves_custody_decisions_by_predicting_whether_offenders_will_re-offend_using_machine_learning_that_results_in_98%25_avoidance_of_false_negatives> accessed 12 June 2024.
[81] Adele Cutler, David Cutler and John Stevens, 'Random Forests' (2011) ML 45.

Crucially, RFs are black box models,[82] meaning that the mechanisms through which RF algorithms arrive at their outcomes are uninterpretable by humans.[83]

Due to the extensive resources necessary for consistently refining and updating the model, HART was discontinued in 2020.[84] However, analysing how ADM models are implemented and the impact they have upon human dictionary decision-makers is a useful exercise in identifying potential legal issues and shaping higher-standards for future use of ADM tools in policing.

Similarly, the GVM was a database and predictive tool developed by the Metropolitan Police (Met) for forecasting gang-related violence in London.[85] The GVM contained information on suspected gang members and associates, including name, date of birth, address, ethnicity, history of firearms or knife crime, carrier of weapons, presumed associates, and any other relevant police intelligence.[86] An officer would input data on an individual being added to the GVM, for the GVM to cross-reference with its database and generate a harm score denoting the predicted risk of said individual engaging in gang violence.[87] The harm score was color-coded: red signified high-risk, yellow medium-risk, and green low-risk. This score largely informed authorising officers' decisions to issue a section 60 stop and search,[88] as part of the Met's 'intelligence-led stop and search'[89] approach in choosing which individuals to target.[90]

In 2022, the Met faced legal action over the use of the GVM. The claimants successfully argued that the use of the tool was unlawful,[91] on the grounds that the GVM was racially discriminatory and had contravened individuals' Article 8[92] rights.[93] In response, the Met agreed to overhaul

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[82] Ujwal Pawar, 'Let's Open the Black Box of Random Forests' (*Analytics Vidhya*, 4 December 2020) <www.analyticsvidhya.com/blog/2020/12/lets-open-the-black-box-of-random-forests/> accessed 20 February 2023.
[83] Ibid.
[84] Durham Constabulary (n 80).
[85] Amnesty International (n 21).
[86] StopWatch, 'The Gangs Matrix' (*StopWatch*, 2024) <https://www.stop-watch.org/what-we-do/projects/the-gangs-matrix/> accessed 18 January 2023.
[87] Amnesty International (n 21).
[88] Rachel Pain, 'Escaping the Matrix: Met Admits Gangs Matrix Unlawful' (*Mountford Chambers*, 18 November 2022) <www.mountfordchambers.com/escaping-the-matrix-met-admits-gangs-matrix-unlawful/> accessed 23 March 2023.
[89] Amnesty International (n 21).
[90] Ibid.
[91] Pain (n 88).
[92] Human Rights Act 1998 art 8.
[93] Pain (n 88).

the GVM. While the claim did not revolve around fettered or delegated discretion, it underscores the court's authority to intervene and set guidelines for the lawful implementation of ADMS within police discretionary decision-making frameworks.

The specific algorithm used by the GVM is undisclosed.[94] As such, the analysis of GVM cannot critique the specific algorithm used and, instead, focuses upon predictive algorithms and generative intelligence (GI) more broadly.

4.2 Detention, Release and the Role of ADM

After an adult individual has been arrested and charged with an offence, it is at the custody officer's discretion to order said individual's release from police detention,[95] refer them to out-of-court disposal, or keep the individual in detention.[96] To detain an individual, the custody officer must have reasonable grounds for doing so, such as: belief that detention is necessary for the safety of others[97] or for the individual's own protection.[98] When making such decisions, custody officers are legally obliged to consider *all* the relevant factors and *only* these factors, such as the condition, behaviours, and risk factors relating to the detainee, in accordance with the Policing and Crime Act 2017[99] and the Bail Act 1976.[100]

4.3 Stop and Search and the Role of ADM

The stop and searches of gang suspects predominantly take place under section 60 of the Criminal Justice and Public Order Act 1994.[101] A senior officer, of Inspector level and above, may authorise any uniformed police officer to conduct a stop and search.[102] The authorised

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[94] Ibid.
[95] Police and Criminal Evidence Act 1984 s 38(1).
[96] Ibid s 38(2).
[97] Ibid s 38(1)(a)(iv).
[98] Ibid s 38(1)(a)(vi).
[99] Policing and Crime Act 2017.
[100] Bail Act 1976.
[101] Criminal Justice and Public Order Act 1994 s 60; The Metropolitan Police, 'Section 60 Criminal Justice and Public Order Act 1994 Standard Operating Procedures' (*The Metropolitan Police*, January 2012) <www.met.police.uk/SysSiteAssets/foi-media/metropolitan-police/policies/search-powers-under-section-60-criminal-justice--public-order-act-1994-standard-operating-procedures-sop> accessed 26 February 2023.
[102] Lauren Nickolls and Grahame Allen, 'Police Powers: Stop and Search' (*House of Commons Library*, 20 July 2022) <https://researchbriefings.files.parliament.uk/documents/SN03878/SN03878.pdf> accessed 18 January 2023.

police officer(s) conducting the stop and search do not need to have suspicion nor reasonable grounds *themselves* regarding the individual they are targeting.[103] However, the authorising officer must 'reasonably believe'[104] that the stop and search is necessary to prevent 'serious violence',[105] to retrieve a 'dangerous instrument or offensive weapon',[106] or to stop an individual who is carrying a 'dangerous instrument or offensive weapon' without 'good reason'.[107]

Authorising officers must base their decision on 'objective factors', namely intelligence.[108] Here is where GVM is significant. As the GVM is designed to predict which individuals are at risk of engaging in gang violence, and is also a database of intelligence, it has played an essential role in informing gang-related stop and search targets.[109] Therefore, it is necessary to analyse *how* authorising officers may have used the GVM to inform their decisions and whether such use was lawful.

4.4 Fettering of Discretion

When ADMS are integrated into discretionary decision-making, there is a risk that decision-makers may be unlawfully influenced by the system's outcomes. This influence may lead to decision-makers fettering their discretion by failing to consider individual circumstances, failing to keep an open mind and/or by utilising the ADMS' outcomes rigidly.

4.4.1 Consider the relevant individual circumstances

First, in order to retain their discretion,[110] a decision-maker must consider the relevant individual circumstances of the matter.[111] A *consideration* is the action of taking the factors

[103] The Metropolitan Police (n 101).
[104] Criminal Justice and Public Order Act 1994 s 60(1).
[105] Ibid s 60(1)(a).
[106] Ibid s 60(1)(aa).
[107] Ibid s 60(1)(b).
[108] Nickolls and Allen (n 102).
[109] Amnesty International (n 21).
[110] Mark Elliott and Jason NE Varuhas, *Administrative Law* (5th edn, OUP 2016).
[111] *Padfield v Minister of Agriculture, Fisheries and Food* [1968] 1 All ER 694.

that affect the decision into account.[112] A *relevant* consideration includes the general principles behind a decision and the specific facts that inform the context.[113]

HART compared information about a new detainee against a vast pool of data, that was not specific to the individual detainee.[114] The practice of custody officers primarily relying on predictive outcomes derived from the historical data of *other* individuals, rather than solely on the unique circumstances of the individual detainee, appears to be at odds with the fundamental obligation to consider the relevant individual circumstances of each detainee.

However, the tool was integrated for use in this specific context.[115] Therefore, in the view of DC, the predictive outcome of HART was itself a 'consideration' that custody officers were expected to consider.[116] Notably, this view has not been formalised in law.[117] Thus, the courts will need to address the extent to which decision-makers can lawfully consider the outcomes generated by ADMS into their decision-making.[118]

Nevertheless, it remains difficult to see how decision-makers using the outcomes of ADMS in their decision-making are able to consider *only* the relevant individual circumstances. For example, DC, attracted criticism after it was revealed that HART used postcode data, often denounced as a proxy for race.[119] Critics claimed such historic data has no place in determining today's policing practices.[120]

These criticisms underscore several factors that complicate the lawfulness of decision-makers considering the outcomes of ADMS. First, overreliance on historical data may be contrary to considering present circumstances. Second, biased data is inherently incompatible with considering individual circumstances. The overrepresentation of minority groups in police intelligence is the consequence of harmful police practices involving the disproportionate

[112] Ibid.
[113] Timothy Endicott, *Administrative Law* (5th edn, OUP 2021).
[114] Centre for Public Impact (n 74).
[115] Ibid.
[116] Ibid.
[117] Williams (n 4) 2.
[118] Ibid.
[119] Couchman (n 66).
[120] Ibid.

targeting of said minority groups.[121] Thus, biased data cannot capture individuals on a case-by-case basis. Last, and more broadly, data that pertains to the actions of others can only provide custody officers with limited insight on the individual before them.

Presumably the accuracy of an algorithmic tool will be a key metric[122] regarded by the courts in their assessment of how ADMS can be used in a discretionary decision-making context. When surveyed, Durham police officers, including custody officers, cited accuracy as the central consideration when choosing to deploy an algorithmic tool.[123] HART was found to have a higher accuracy rate than custody officers in predicting the risk of reoffending by 1.6%.[124] Thus, if accuracy were the chosen metric, custody officers utilising HART may be expected to consider the outcomes of HART as very significant.[125] However, the accuracy of HART was only 53.8%, arguably more akin to the flip of a coin than something that could be consistently relied upon to provide accurate results. This demonstrates how using accuracy as the *sole* metric for determining the lawfulness of using ADMS in discretionary decision-making contexts will be insufficient, as the perceived accuracy of an ADMS is not necessarily reflected in reality. Surely then, it will be necessary to have multiple metrics to measure lawfulness.[126] To avoid decision-makers inadvertently relying on irrelevant and harmful considerations from an ADMS, as discussed above, one metric needs to be sensitive to biases.

The consequences of failing to address bias in data, which enable ADM**S** to perpetuate bias, are further highlighted by the Mets' use of the GVM tool. The Met claim that the GVM is an intelligence tool, designed to prevent gang violence by monitoring gang suspects.[127] However, not every individual on the GVM is there because they are a gang suspect. The Met has faced harsh criticism after revelations that the GVM generated its predictive harm scores in a guilt-by-association manner,[128] which is contrary to considering relevant *individual* circumstances.

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[121] Michael Shiner and others, 'The Colour of Injustice: "Race", Drugs and Law Enforcement in England and Wales' (2019) LSE Press <https://www.lse.ac.uk/united-states/Assets/Documents/The-Colour-of-Injustice.pdf> accessed 6 June 2024.
[122] Williams (n 4) 2.
[123] Marion Oswald and others, 'The UK Algorithmic Transparency Standard: A Qualitative Analysis of Police Perspectives' (2022) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4155549> accessed 6 June 2024.
[124] Durham Constabulary (n 80).
[125] Williams (n 4) 2.
[126] Ibid.
[127] The Metropolitan Police, 'Gangs Violence Matrix' (*The Metropolitan Police*, 2024) <https://www.met.police.uk/police-forces/metropolitan-police/areas/about-us/about-the-met/gangs-violence-matrix/#:~:text=How%20does%20the%20matrix%20work,at%20risk%20from%2C%20gang%20violence> accessed 18 January 2023.
[128] Amnesty International (n 21).

Forty per cent of individuals on the GVM have been assigned a harm score of 0, meaning there are no charges, nor police intelligence, linking them to gang violence in the past two years.[129] Nevertheless, these individuals have remained on the GVM because of their *presumed* association with a gang suspect on the GVM.[130] Guilt-by-association is a logical fallacy:[131] just because an individual knows or is associated with a gang suspect does not mean they are a gang member *themselves*. However, many individuals were subjected to frequent stop and searches, were monitored, followed, and even harassed because they were kept on the GVM.[132] As the GVM was factoring in guilt-by-association as a decision-point, authorising officers utilising this system were fundamentally at risk of failing to consider the individual circumstances.

Furthermore, as the gang associations were *presumed*, they may have been incorrect and therefore irrelevant. Thus, discretionary decision-makers using ADMS that incorporate speculative data are at risk of fettering their discretion by (accidentally) taking irrelevant considerations into account.

The Met, however, has argued that creating a web of associations is useful in understanding the scale of gang influence in an area.[133] The associative decision-points were embedded into the GVM specifically for monitoring potential suspects.[134] As such, the Met views the predictive harm scores generated by the GVM as 'considerations' that must be taken into account during a human officer's decision-making process.[135] Again, the view that ADM predictive outcomes are 'considerations' has not yet been recognised by law.[136]

It might be argued that predictive ADMS fundamentally fail to capture the individual as they conduct comparative analysis.[137] Both HART and the GVM captured the individual strictly within the context of others, as predictive models are designed to identify correlation in datasets

[129] Ibid.
[130] Ibid.
[131] Gerald Lebovits, 'Say It Ain't So: Leading Logical Fallacies in Legal Argument, Part II' (2016) 88 NYSBA 64.
[132] Amnesty International (n 21).
[133] The Metropolitan Police (n 127).
[134] Ibid.
[135] Amnesty International (n 21).
[136] Williams (n 4) 2.
[137] Binns, Edwards and Williams (n 2).

to forecast the likelihood of a particular outcome.[138] However, the 'mathematical process of statistical optimisation'[139] does not necessarily have to be at the cost of a decision-makers' ability to produce relevant and individualised considerations. If, in a policing context, the outcome of a predictive ADM tool can be viewed as a piece of intelligence, arguably it ought to be a consideration. Thus, the courts will need to determine how predictive outcomes fit within the broader puzzle of intelligence-gathering.

Using ADMS that produce predictive outcomes based on correlating data sets, evidently risks undermining a decision-maker's ability to consider nuanced individualised circumstances and only factor in relevant considerations. Consequently, this raises several important points where the courts could offer clarity: what, if any, ADM outputs may count as intelligence for use in a discretionary decision-making context, the weight that ADM generated intelligence should hold in this context, and how, if at all, discretionary decision-makers might lawfully 'consider' generative intelligence.[140]

4.4.2 Open mind

Decision-makers must also keep an open mind[141] during the process. Keeping an open mind has been defined as a decision-maker having a preparedness 'to change their views if persuaded that they should',[142] relinquishing any absolutism in reasoning,[143] and appreciating the nuances of the matter at hand.[144]

Importantly, the use of an algorithmic support tool does not *necessarily* hinder a custody officer's ability to be open-minded. With regards to detention and arrest, custody officers must still consider the judgement of the arresting officer, who may attempt to persuade them, for example, from detaining the individual against the outcome of HART or such similar tools.[145]

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[138] Ibid.
[139] Jenna Burrell 'How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms' (2016) 3 Big Data & Society 1–12, 10.
[140] Binns, Edwards and Williams (n 2).
[141] *R v Environment Secretary, ex parte Brent LBC* [1982] QB 593.
[142] *Island Farm Development Ltd v Bridgend County Borough Council* [2006] EWHC 2189.
[143] Keith E Stanovich and Richard F West, 'Reasoning Independently of Prior Belief and Individual Differences in Actively Open-Minded Thinking' (1997) 89 Journal of Educational Psychology 342–357.
[144] Ibid.
[145] College of Policing, 'Identifying, Assessing and Managing Risk' (*College of Policing*, 31 December 2020) <www.college.police.uk/app/major-investigation-and-public-protection/managing-sexual-offenders-and-violent-offenders/identifying-assessing-and-managing-risk> accessed 25 February 2023.

Arguably, an ADMS simply operates as another source of information. Therefore, whether an ADMS can be lawfully utilised as an additional resource appears to hinge upon how it impacts the discretion of the decision-maker. If the predictive outcome of the ADMS is used as a 'final say' that supersedes the custody officer's own judgement, then the custody officer narrows their judgement,[146] closes their mind, and is therefore fettering the exercise of their discretion.

The officers from DC using HART described accuracy as the central way of determining algorithmic legitimacy,[147] and accuracy was a key justification for officers' extensive use of HART.[148] This demonstrates how the perceived accuracy of ADMS, even where the tool is only marginally more accurate than the human decision-makers, can have a significant, and potentially undue, influence upon decision-makers.[149]

Alternatively, the open-mind requirement only asserts that a decision-maker is *prepared* to change their view if persuaded.[150] It may be that the custody officer simply happened to agree with the outcome generated by HART.

Similarly, the GI element of the GVM was largely regarded by the Met as an added factor in their intelligence-gathering process, making it a beneficial tool for decision-makers. However, if the content of the GI is symptomatic of bias in policing, it reinforces stereotyping (a form of absolutist categorisation)[151] and is therefore a constraint upon a decision-maker's ability to remain open-minded while making their decisions.[152] Here, it would clearly be unlawful for a police officer using the GVM to simply agree with a discriminatory outcome.

As mentioned, the Met faced legal scrutiny after the GVM was found to be racially biased.[153] The 72% of individuals flagged as responsible for gang violence on the GVM were black men, while only 27% of those actually responsible for serious violence in London are black.[154] This

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[146] Williams (n 4) 2.
[147] Oswald and others (n 123).
[148] Centre for Public Impact (n 74).
[149] Oswald and others (n 123).
[150] *Island Farm Development Ltd v Bridgend County Borough Council* [2006] EWHC 2189.
[151] Ibid.
[152] Williams (n 4) 2.
[153] Pain (n 88).
[154] Centre for Crime and Justice Studies, 'Dangerous Associations: Joint Enterprise, Gangs and Racism' (*Centre for Crime and Justice Studies*, 25 January 2016) <www.crimeandjustice.org.uk/publications/dangerous-associations-joint-enterprise-gangs-and-racism> accessed 19 January 2023.

reveals a twofold problem, racial bias in the collection of gang-related intelligence as well as the transformative power that ADMS can have upon human discernment.[155]

The concept of what constitutes a gang is very broad.[156] The Trident Gang Command define gangs as: discernible groups of predominantly young people, engaging in criminal activity, who claim a territory, bear some identifying feature, and are in conflict with other similar groups.[157] Such broad criteria leaves the process of labelling an individual as a gang suspect vulnerable to subjectivity.[158] While individuals may only be added to the GVM if two corroborated pieces of intelligence suggest they are a gang member, officials within Gangs Unit have reported a 'lack of clear process, governance and criteria' for how officers should determine suspected gang membership.[159] The Met has refused to provide information regarding the standards and processes for adding individuals to the GVM public.[160] Nonetheless, the disproportionate representation of young black men on the GVM indicate that this selection process is riddled with bias and stereotypic policing practices.[161]

It is no surprise that an intelligence database on which young black men are overrepresented, like the GVM, would result in a disproportionate number of predictive outcomes recommending young black men for 'intelligence-led' section 60 stop and searches.[162] Rather, the question is whether authorising officers were able to identify instances of bias and disregard the GVM's outcome if any alternative information was available, or there were nuanced factors to consider. Arguably, if one database holds a significant amount of police intelligence on gang violence, there is less opportunity to access alternative information. Nonetheless, authorising officers are entrusted, by statute, to be competent decision-makers, who know how to exercise their own discretion, despite challenges.[163] It is a legal requirement for public sector bodies handling the data of individuals to implement processes for handling this data fairly, lawfully

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[155] Mireille Hildebrandt, 'Law as Computation in the Era of Artificial Legal Intelligence: Speaking Law to the Power of Statistics' (2017) 68 UTLJ 12–35 <https://www.utpjournals.press/doi/abs/10.3138/utlj.2017-0044> accessed 6 June 2024.
[156] Amnesty International (n 21).
[157] Centre for Social Justice, 'Dying to Belong: An In-depth Review of Street Gangs in Britain' (*Centre for Social Justice*, 13 February 2009) <www.centreforsocialjustice.org.uk/library/dying-to-belong-an-in-depth-review-of-street-gangs-in-britain> accessed 30 January 2023.
[158] Amnesty International (n 21).
[159] Ibid.
[160] Ibid.
[161] Ibid.
[162] Criminal Justice and Public Order Act 1994 s 60.
[163] *R v Secretary of State for the Home Department ex parte Fire Brigades Union* [1995] UKHL 3.

and with regard to the rights of these individuals.[164] Thus, we may presume that an authorising officer would have means of vetting intelligence other than the GVM'S ADM outcomes. Yet, this did not appear to change the disproportionate targeting of a community.[165]

The impact of ADMS on human discernment arises as an additional problem. The term 'judgmental atrophy'[166] describes how data-driven decision-making can 'transform the environment we depend upon, while also transforming ourselves in the process'.[167] This term might be applied to the authorising officer who fails to recognise or mitigate, bias when using ADM tools in their decision-making processes. If the authorising officer over-relies upon an ADM tool, they close their own mind. This is because the environment for authorising section 60 stop and searches[168] has been transformed (becoming a largely automated process) by ADM tools, and the discretionary capabilities of the decision-maker are transformed (narrowed) by the ADM tool.

The impact of ADMS on the decision-maker can also been described as a 'hypernudge'[169] towards a particular course of action.[170] Predictive algorithmic outcomes are expressed in simplistic, often categoric, terms which immediately limit the extent to which ADMS can facilitate nuanced and complex human decision-making.[171] For example, individuals on the GVM are ranked 'low-risk', 'medium-risk', and 'high-risk' in terms of how likely they are to engage in gang violence.[172] Where an individual (D) is ranked 'medium-risk', an authorising officer, prima facie, may decide that permitting a section 60 stop and search[173] of D is a reasonable, intelligence-led preventative measure. However, the GVM does not convey in its simplistic expression, for example, that D knows some members of their community who are involved in a gang but is not a gang member nor involved in criminal activity themselves, and that D is only likely to engage in violence if at risk of becoming a victim of gang violence. Notably, this scenario is of frequent occurrence as 75% of individuals listed on the GVM are

[164] Data Protection Act 2018 art 5(1).
[165] Amnesty International (n 21).
[166] Hildebrandt (n 155).
[167] Ibid.
[168] Criminal Justice and Public Order Act 1994 s 60.
[169] Karen Yeung, "'Hypernudge": Big Data as a Mode of Regulation by Design' (2017) 20 Information, Communication & Society 118–136.
[170] Ibid.
[171] Ibid.
[172] Amnesty International (n 21).
[173] Criminal Justice and Public Order Act 1994 s 60.

victims of serious violence.[174] An open-minded approach toward interpreting the intelligence relating to D might recognise that D has been identified as a potential victim, rather than a potential perpetrator. A close-minded or hypernudged[175] approach might cause an authorising officer to allow the stop and search of D, simply because D has been flagged by the GVM.

Thus, the courts will need to address how ADMS can (if at all) be used to supply intelligence that informs discretionary decision-making processes. Seemingly, despite their perceived accuracy and decision-making streamlining, ADMS risk perpetuating bias and discrimination in policing. Accordingly, the courts will need to investigate how discretionary decision-makers can be mindful of bias, particularly in relation to interpreting the simplistic expressions of these systems, and demonstrate independence in their decision-making processes.

4.4.3 Exercising discretion without rigidity

Decision-makers must be willing to deviate from established policies or guidelines where necessary to ensure they do not fetter their discretion by being too rigid.[176]

This is particularly relevant in the case of HART where, for example, custody officers must make discretionary decisions[177] to assess the static and dynamic risks associated with detainees. Over-application of HART's predictions, and other ADMS more broadly, could constitute rigidity as discretionary decision-makers are supposed to make their decisions on a case-by-case basis.[178]

Static risk factors comprise the collection of historical data on an individual's criminal record and previous offences.[179] As this data is static, it falls short in capturing the complexity of dynamic and fluid risks that are prone to change over time[180] and is therefore insufficient as the sole basis for individual risk assessments. Dynamic risk factors relate to the changeable factors in an offender's personal circumstances, attitudes, and behaviour. Hence, dynamic

[174] Amnesty International (n 21).
[175] Yeung (n 169).
[176] Cobbe (n 39).
[177] Police and Criminal Evidence Act 1984 s 38(1)(a)(iii).
[178] *British Oxygen Co Ltd v Minister for Technology* [1971] AC 610; *R v Secretary of State for the Home Department ex parte Fire Brigades Union* [1995] UKHL 3.
[179] College of Policing (n 145).
[180] Ibid.

factors are essential considerations in individual risk assessments and predicting reoffending.[181]

For example, a detainee (A) has previously been convicted for violent physical assault. A has since secured stable employment at a grocery store for the last three years. A still lives in an area where crime rates are relatively high, but A has distanced themself from prior associates. However, A recently stole from the grocery store while at work and has been taken into custody on suspicion of theft. A is presently detained and awaiting a decision on whether they should be processed through the criminal justice system or referred to Checkpoint.

In the case of A, the static risk factors alone depict an individual with a history of violent criminal activity, from a high-risk area, who has recently committed another offence. Based on these factors, HART is likely to categorise A as a 'high-risk' individual,[182] which would deny A entry into the Checkpoint program.

However, it is also essential to consider the dynamic factors. A has made considerable efforts to rehabilitate their life in the past three years. This includes finding stable employment and refraining from criminal activity, which are significant indicators of positive change. Moreover, A has expressed remorse and regret for their recent minor offence, which demonstrates cooperativeness and a willingness to take responsibility for their actions. Given these dynamic factors, it seems reasonable to conclude that A's risk level is better characterised as 'medium-risk', and that A would benefit from the Checkpoint program.

As dynamic risk factors are changing and under ongoing assessment by the custody officer, they cannot be input into HART.[183] Thus, without HART having access to the dynamic risk factors associated with a detainee, it cannot make nuanced case-by-case decisions like a custody officer. Instead, there is a risk that a detainee is reduced to the information that a custody officer can input, such as criminal history, age, gender, and residential postcode,[184] and the rest is down to the uninterpretable calculations of HART, drawing from historic data

[181] Ibid.
[182] Ibid.
[183] Fair Trials 'FOI Reveals over 12,000 People Profiled by Flawed Durham Police Predictive AI Tool' (*Fair Trials*, 15 August 2022) <www.fairtrials.org/articles/news/foi-reveals-over-12000-people-profiled-by-flawed-durham-police-predictive-ai-tool/> accessed 1 March 2023.
[184] Cambridge University (n 77).

that is non-specific to the detainee in question. Thus, if officers rely too heavily on a system that cannot account for evolving risk factors like a human custody officer, their decision-making process is at risk of being overly rigid, failing to account for individuals on a case-by-case basis.

Perhaps here the perceived accuracy[185] of HART poses a problem: it seems only *fair* to apply a system that has greater accuracy than custody officers in the decision-making processes for each detainee. Indeed, the courts are increasingly accepting of strictly applied policies, so long as these polices demonstrably ensure 'consistency and efficiency'[186] while also considering the unique facts of a case. Arguably, ADMS promote such consistency and efficiency,[187] whereas human custody officers draw from their years of experience to create differing rules and perspectives that shape their decisions.[188] However, the courts have also held that consistency and efficiency may not be pursued 'at the expense of the merits of individual cases'.[189] Current ADMS, such as HART, are not equipped to discern and assess individual dynamic risks in the same way that a human custody officer can as they lack empathy, sufficient socio-legal context, and sensitivity.[190] In the case of HART, this is demonstrated in the consistent over-estimations made by the tool when predicting an individual's risk level.[191]

The over-estimation demonstrated by HART reveals that a certain rigidity in applying correlative data exists within ADMS processes. However, looking beyond the inner-workings of the tool itself, this rigidity also seems present in the human decision-maker's application of ADMS generated outcomes as evidenced by the Met's use of the GVM.[192]

If GI is a product of the database that a predictive ADM tool draws and learns from,[193] then the predictive outcomes of the ADM tools are only as good as the data they have access to.[194]

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[185] Durham Constabulary (n 80).
[186] Government Legal Department, 'The Judge Over Your Shoulder — A Guide To Good Decision Making' (*GOV UK*, September 2018) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746170/JOYS-OCT-2018.pdf> accessed 1 March 2023.
[187] Cobbe (n 39).
[188] Durham Constabulary (n 80).
[189] *Merchandise Transport Ltd v British Transport Commission* [1962] 2 QB 173.
[190] Centre for Data Ethics and Innovation (n 23).
[191] Fair Trials (n 183).
[192] Ibid.
[193] Mireille Hildebrandt, 'New Animism in Policing: Re-Animating the Rule of Law?' in Ben Bradford and others (eds), *The Sage Handbook of Global Policing* (Sage 2016).
[194] Amnesty International (n 21).

However, because these predictive outcomes are presented simplistically ('high-risk', 'low-risk', 'yes', 'no'), they are often interpreted by humans as factual conclusions rather than probabilities based upon a specific dataset.[195] It is this appearance that may lead discretionary decision-makers to rigidly applying the outcomes of predictive ADMS when making decisions.[196] This phenomenon is demonstrated in how the Met's 'intelligence-led' section 60 stop and searches[197] consistently targeted black men and black neighbourhoods.[198]

The nature of intelligence-led operations is cyclical:[199] intelligence is recorded, which leads to targeted policing activity, which uncovers further intelligence, and the cycle repeats. Thus, it is important for discretionary decision-makers to bear this factor in mind. There is a risk that, without a level of flexibility in how intelligence is interpreted or acted upon, certain individuals or neighbourhoods could become overrepresented during the course of intelligence-led operations. This is precisely what happened in the case of the GVM.[200] Black men and black neighbourhoods were the primary targets for intelligence-led (GVM-led)[201] section 60 stop and searches, before the GVM was overhauled.[202] Accordingly, 'black' and 'black' postcodes became learned decision-points that were utilised by the GVM.[203]

It is the duty of an authorising officer, and discretionary decision-makers generally, to ensure they are not exercising their discretion rigidly. The GVM's continual, disproportionate flagging of black men for section 60 stop and searches[204] was perpetuated by authorising officers allowing these stop and searches. It ought to have occurred to authorising officers that, aside from issues of major algorithmic bias within the GVM, they were responsible for perpetuating the cyclical, chronic policing of certain people and postcodes. The rigidity of the authorising officers in approving the GVM's outcomes demonstrates a failure to lawfully exercise their discretion.

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[195] Hildebrandt (n 193).
[196] Ibid.
[197] Criminal Justice and Public Order Act 1994 s 60.
[198] Amnesty International (n 21).
[199] Shiner and others (n 121).
[200] Amnesty International (n 21).
[201] Ibid.
[202] Criminal Justice and Public Order Act 1994 s 60.
[203] Amnesty International (n 21).
[204] Criminal Justice and Public Order Act 1994 s 60.

The court will therefore need to clarify how decision-makers may demonstrate critical, nuanced, decision-making when utilising ADMS that operate in a 'blanket policy'[205] manner. For example, considering whether the predictive outcome aligns with alternative intelligence sources, the views of relevant colleagues, as well as the decision-maker's own experience. In the case of the GVM, authorising officers might want to check exactly what data is stored on an individual and whether it is sufficient, or relevant, to generating a harm score.

4.4.4 Delegation of discretion and rubber stamping

Although the non-delegation principle pertains to human delegation, it also has implications for the use of ADMS.[206] If a decision-maker has acted upon the dictates of an ADMS without exercising their own judgement to arrive at a decision, there is concern that they have delegated their discretion.

If statute confers decision-making powers onto a specific individual, such authority cannot be transferred or delegated to another party.[207] A decision-maker who fails to exercise their own discretion, and merely approves of a decision that has been recommended or made for them, has 'rubber stamped'[208] their decision and therefore acted unlawfully.

A nominated decision-maker may seek guidance from others without necessarily relinquishing their decision-making authority,[209] provided that the decision is not entirely dictated to the decision-maker[210] (for example, where the decision-maker takes advice but retains their power to disagree).[211] This is precisely what DC claimed when justifying their use of HART.[212] The DC stated that their custody officers retained their independence through two essential avenues: First, the custody officer possessed the discretion to disregard the predictive results generated by HART.[213] Second, that custody officers have legal obligations to consider all relevant

[205] Cobbe (n 39).
[206] Ibid.
[207] *Noon v Matthews* [2014] EWHC 4330 (Admin); *R v London Borough of Tower Hamlets, ex p Khalique* [1994] 26 HLR 517.
[208] *R v Home Secretary ex p. Walsh* [1992] COD 240.
[209] *H Lavender & Son v Minister of Housing and Local Government* [1970] 1 WLR 1231.
[210] *Ellis v Dubowski* [1921] 3 KB 621.
[211] *Mills v London County Council* [1925] 1 KB 213.
[212] Centre for Public Impact (n 74).
[213] Ibid.

factors in their decision-making process, in accordance with the Policing and Crime Act 2017[214] and the Bail Act 1976.[215]

However, the extent to which custody officers exercised their discretion or *truly* considered relevant factors is difficult to ascertain.

HART was implemented amidst a shrinking police workforce in the DC due to budget cuts, meaning its staff were (and are) tasked to do more with less resources.[216] Under such circumstances, picture a busy night at the police station where a custody officer is managing multiple detainees. Some detainees are exhibiting disruptive and threatening behaviour, and the work environment is highly stressful. The custody officer is required to process two new detainees, both of whom were uncooperative during their arrest. To begin the processing of the first detainee (B), the custody officer inputs B's basic information into HART and attempts to gather more information through questioning B. However, B remains uncooperative. HART identifies B as a high-risk individual and suggests remanding B in custody, denying B access to the Checkpoint program. Although, in the custody officer's experience, detainees will usually become more cooperative once they have settled in, the officer is under pressure to process detainee C and, feeling rushed, the custody officer authorises HART's recommendation to detain B.

In stressful situations, it is plausible to see how custody officers may rely on predictive tools in pursuit of efficiency.[217] Importantly, a decision-maker has only delegated their discretion where they did not possess authority over the final decision and did not exercise their own independent judgement.[218] In the example above, the custody officer has still retained the power to make the final decision, however, the extent to which the officer exercised their own independent judgement is less convincing. Simply signing-off on decisions does not constitute an exercise of judgement.[219] Where the authorised decision-maker merely approves of the advice of others, HART's predictive outcome in this case, without exercising their own

[214] Policing and Crime Act 2017.
[215] Bail Act 1976.
[216] Centre for Public Impact (n 74).
[217] Oswald (n 3) 376.
[218] Elliott and Varuhas (n 110).
[219] *Ellis v Dubowski* [1921] 3 KB 621.

discretion, the decision-maker has 'rubber stamped'[220] a decision, and therefore delegated their discretionary power.

As the DC argue, custody officers could simply be taking the advice of the ADMS and, while retaining their discretion to refute it, happen to agree with the outcome of HART.[221] However, given the perceived accuracy of HART, it has been argued that custody officers may have felt pressured to 'delegate responsibility to the algorithm'[222] to avoid reproach from their superiors.[223] Aside from comparing the written records detailing both HART's outcome and the rationale and ultimate decision made by the custody officer,[224] it is unclear how to make a procedural distinction between the outcomes of HART and the final decision made by the custody officer.[225] Thus, the deciding question[226] is whether, by deploying HART, custody officers acted in a manner that conflicts with the wording, purpose, and context of the statute that confers their decision-making powers.[227]

Custody officers may exercise their discretionary decision-making powers to detain or release individuals, for example, if they possess 'reasonable grounds for believing that the detention of the person arrested is necessary to prevent him from committing an offence'.[228] The 'reasonable grounds' requirement is predicated on a belief that custody officers possess an 'institutional ability'[229] to make such decisions based on their knowledge and expertise. In contrast, HART produces outcomes based upon grounds that cannot be explained due to the uninterpretable nature of the black box model.[230] Accordingly, if a custody officer cannot decipher the reasoning of the ADMS, but still relies on its prediction to inform their decision, the custody officer has delegated their discretion by failing to exercise their own judgement. Similarly, the 'necessary' requirement underpins how custody officers are expected to act out

[220] *R v Home Secretary ex p. Walsh* [1992] COD 240.
[221] Centre for Public Impact (n 74).
[222] Marion Oswald and others, 'Algorithmic Risk Assessment Policing Models: Lessons from the Durham HART Model and "Experimental' proportionality"' (2018) 27 Information and Communications Technology Law 223–250.
[223] Mark Bridge and Gabriella Swerling, 'Bail or Jail? App Helps Police Make Decision About Suspect' *The Times* (London, 11 May 2017) <www.thetimes.co.uk/article/bail-or-jail-app-helps-police-make-decision-about-suspect-kv766zjc9> accessed 13 February 2023.
[224] Centre for Public Impact (n 74).
[225] Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision- Making' (2019) 37 CUP 1–34.
[226] Hutchings (n 45).
[227] LexisNexis (n 52).
[228] Police and Criminal Evidence Act 1984 s 38(1)(a)(iii).
[229] Elliott and Varuhas (n 110).
[230] Pawar (n 82).

of necessity.[231] HART, however, is designed to offer a prediction based upon input data, which is not the same as exercising one's expertise to assess whether the action that may *seem* the best approach truly *is* necessary. Thus, if a custody officer failed to exercise their own judgement and simply relied upon HART's suggestion, the custody officer delegated their discretion.

The Met also claimed that the GVM's GI was a guidance tool, rather than instructional. Although, the Met's guidance and instructions for the use and interpretation of the GVM is not publicly available making this claim difficult to critically examine. However, even with access to the Met's procedures for the use of ADMS, it will be challenging for the courts to identify a clear procedural difference between the outcomes of an ADMS and the discretionary decision-maker's ensuing decision.[232] The perceived sophistication of ADMS can lead to humans trusting these systems over their own capabilities.[233] Thus, there is risk of human decision-makers, even unintentionally, giving primacy to the outcomes of ADMS,[234] thereby 'rubber stamping'[235] the ADMS' outcomes.[236]

Furthermore, as discussed in the previous section, the pressure on discretionary decision-makers, such as authorising officers, to make difficult decisions on sensitive issues, such as whether to authorise the section 60 stop and search[237] of a gang suspect, may also push officers towards relying on GI tools to make accurate, swift decisions *for* them.[238]

When addressing this issue, the courts will likely reinforce how discretionary decision-makers bear responsibility for ensuring they act in accordance with their statutory powers.[239] Thus, decision-makers must always ask themselves if their use of an ADMS is aligned with the wording, purpose, and context of the statute that confers their decision-making powers.[240]

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[231] College of Policing (n 145).
[232] Cobbe (n 225).
[233] Hildebrandt (n 155).
[234] Ibid.
[235] *R v Home Secretary ex p. Walsh* [1992] COD 240.
[236] Hildebrandt (n 155).
[237] Criminal Justice and Public Order Act 1994 s 60.
[238] Oswald (n 3) 376.
[239] Hutchings (n 45).
[240] LexisNexis (n 52).

As previously mentioned, an authorising officer must 'reasonably believe'[241] that allowing a section 60 stop and search[242] is 'expedient'[243] to prevent: serious violence,[244] to retrieve a dangerous instrument or offensive weapon,[245] or to apprehend an individual carrying said instrument or weapon without good reason.[246] Clearly, the GI produced by the GVM, which is expressed simply as a harm score of 'low-risk', 'medium-risk', or 'high-risk', is insufficient *alone* to provide an authorising officer with sufficient knowledge to 'reasonably believe'[247] much at all. Yet, the 'expedient'[248] requirement considerably broadens what *exactly* it is that the authorising officer must believe.

It certainly appears expedient to utilise the GI of the GVM: the GVM efficiently combines data to produce a probability on the risk an individual poses, and an authorising officer may favour this generative outcome in pursuit of efficacy and convenience. The wording of the statute, after all, does not require an authorising officer to act out of necessity, but out of convenience. The very definition of 'expedient' is taking convenient or practical action.[249] Thus, it appears the priority is whether the stop and search will be of use, and determining what is useful is at the authorising officer's discretion. On this basis, a simple generative probability, such as 'medium-risk', may indicate it is on-balance worth police time and resources to conduct a stop and search, regardless of whether the stop and search itself is *truly* necessary or appropriate.

However, a discretionary decision-maker must still exercise their *own* judgement.[250] Accordingly, the authorising officer cannot, lawfully, arrive at *their* reasonable belief to authorise a section 60 stop and search[251] by solely relying on the outcome of the GVM, regardless of how expedient this may seem.

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[241] Criminal Justice and Public Order Act 1994 s 60(1).
[242] Ibid s 60.
[243] Ibid s 60(1)(a).
[244] Ibid.
[245] Ibid s 60(1)(aa).
[246] Ibid s 60(1)(b).
[247] Ibid s 60(1).
[248] Ibid s 60(1)(a).
[249] *Cambridge Dictionary*, 'Expedient' (*CUP*, 2024) <https://dictionary.cambridge.org/dictionary/english/expedient> accessed 13 February 2023.
[250] *Lavender Son ltd v Minister of Housing and local Government* (1970) 3 All ER 871; *R v Home Secretary ex p. Walsh* [1992] COD 240.
[251] Criminal Justice and Public Order Act 1994 s 60.

Considering the growing judicial acceptance of stricter policies,[252] the courts will need to establish *how* decision-makers can ensure that their decision-making processes contain sufficient variation to cater for individual circumstances. To this end, the courts must delineate how a procedural distinction can be drawn between the recommended outcomes of ADMS and the final decisions made by human decision-makers. The courts will need to examine if, and how, a machine can be positioned in an advisory capacity to establish whether a substantive distinction can be drawn between taking the advice of an algorithmic decision support tool and simply 'rubber stamping' the predictive suggestions of such tools.

5 Conclusion

Evidently, there is urgent need for an unambiguous and robust legal framework guiding the use of ADMS, particularly in policing contexts where just decision-making should be paramount.[253] Using a doctrinal approach, this article has illustrated the potential for the courts to adapt established principles of lawful human decision-making to suit the realm of machine-assisted decision-making. While the courts cannot solely address this gap in the regulatory framework for police use of ADMS, they can certainly utilise the public law toolkit[254] to assist in building the groundwork.

This article has argued that the courts are best placed[255] through the JR process and despite its limitations to shape the future of how ADMS can be used lawfully in police discretionary decision-making contexts. As ADMS pose a threat to the proper exercise of decision-makers' discretion[256] illegality was identified as the most relevant JR ground, with the focus being on the non-fettering[257] and non-delegation[258] principles. Having demonstrated that police use of ADMS in discretionary decision-making context is very likely to be amenable to JR, the article proceeded to explore the application of the non-fettering and non-delegation principles to two real-life examples, HART and the GVM.

[252] Elliott and Varuhas (n 110).
[253] Police Foundation and the Policy Studies Institute (n 59).
[254] Williams (n 4) 2.
[255] Hogarth (n 37).
[256] Per Lord Diplock in *Council of Civil Service Unions v Minister for the Civil Service* [1984] UKHL 9.
[257] *R v Secretary of State for the Home Department ex parte Fire Brigades Union* [1995] UKHL 3.
[258] *Lavender Son ltd v Minister of Housing and local Government* [1970] 3 All ER 871.

These examples emphasised how predictive outcomes that are derived from obscure big-data analysis risk limiting a decision-makers' ability to make relevant, individualised considerations. They also showed how the historic data used to train these systems are often the product of discriminatory police practices and increase the risk of embedding bias (particularly racial bias) into algorithmic decision-points. Other risks include, discretionary decision-makers placing (subconscious) supremacy in the outcomes of these systems, thereby hindering their ability to keep an open mind and trusting the simplistic expressions of these systems, which typically read as definite conclusions (eg, 'high-risk'), more than their own training. Additionally, ADMS by design, promote consistency: analysing and re-analysing datasets in search of meaningful data patterns and thus, their use raises concerns regarding rigidity.

Consequently, the courts have an important role to play in shaping how ADMS might be lawfully used by decision-makers offering guidance on a matter of issues. Namely, how to ensure the kind of data used is both relevant and free from bias, and how to ensure independence of mind in the discretionary decision-makers' processes. The courts may also direct as to whether discretionary decision-makers can utilise ADMS in a 'blanket policy' manner and stipulate how decision-making processes that utilise ADMS can guarantee sufficient variation that caters for individual circumstances.

Crucially, the courts will need to establish if, and how, a machine can be positioned in an advisory capacity, particularly regarding sensitive issues in police discretionary decision-making. This guidance will need to consider: 1) if and how ADMS can be used in an advisory capacity, 2) how decision-makers can consider individual circumstances when using big-data ADM tools, 3) whether ADMS can be used in a blanket-policy manner, and 4) how decision-makers can demonstrate a distinction between their reasoning processes and the outcome generated by the ADMS.

Even though JR does not present a *complete* solution to the issue of regulating the lawful use of ADMS in police discretionary decision-making contexts, the article has demonstrated how JR principles are relevant and useful in considering the lawful use of ADMS. As machines, at the moment, cannot be held legally accountable, discretionary police decision-makers utilising ADMS are burdened with drawing the distinction between taking the system's 'advice' and 'rubber stamping' its predictive outcomes. The courts will need to determine how a procedural distinction might be made between the recommended outcomes of ADMS and the human decision-maker's final decision to guide the lawful use of ADMS. Future

research will need to address how the interpretability of ADMS may be improved to ensure these systems operate as scrutable tools that serve,[259] rather than undermine, human decision-making.

[259] Benjamin Cartwright, 'Regulating the Robot: A Toolkit for Public Sector Automated Decision-Making' (2021) 10 OUULJ 23.