

Challenges in Reviewing Automated Decision-
Making in UK Administrative Justice

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Abstract

Administrative justice relies on two inseparable processes: the administrative decision-making process and the review process of these decisions through judicial review, appeals in tribunals and complaints to the ombudsman, or internal reviews. Public bodies are increasingly using AI and machine learning to automate the decision-making process, primarily to reduce costs and improve efficiency. This shift fundamentally changes the nature of administrative justice. However, numerous administrative wrongs have been encountered in automated decision-making process, such as illegality and errors. Accordingly, these wrongs in this type of decision have led to grievances and cases against the public bodies that used these AI-based systems through judicial review.

While existing literature focuses on implementations of these technologies in the decision-making process, this research focuses on investigating the challenges administrative justice institutions face while attempting to review cases about automated decisions. Using a documentary analysis method and thematic analysis of UK administrative justice institutions' practices, the research establishes a new typology of these challenges. Specifically, it identifies three core types of challenges that hinder effective oversight: (1) Lack of transparency, (2) Regulatory gap, and (3) Expertise gap within review bodies. It concludes by proposing some solutions and recommendations to address these challenges within the administrative law domain, drawing inspiration from other laws and the experiences of other countries such as the European Union, Australia, Canada, and the USA.

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Declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for a degree or other qualification at this University or elsewhere. All sources are acknowledged as references.

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List of Abbreviations

ABC	Automated Border Control
ADM	Automated Decision-Making
ADMPs	Automated Decision-Making Processes
AI	Artificial Intelligence
AIA	Artificial Intelligence Act
AJI	Administrative Justice Institution
ANN	Artificial Neural Network
API	Application Programming Interface
ATRS	Algorithmic Transparency Recording Standard
AVR	Automatic Voice Recognition
BRTC	Border Risk and Targeting Capability
DM	Decision-Making
DMP	Decision-Making Processes
DPIA	Data Protection Impact Assessment
DWP	Department for Work and Pensions
ECHR	European Convention on Human Rights
ETS	Educational Testing Service
EUSS	EU Settlement Scheme
GDS	Government Digital Service
HMRC	HM Revenue & Customs
HRAIS	High-Risk AI Systems
ICO	Information Commissioner's Office
IRIS	Iris Recognition Immigration System

IT	Information Technology
JCWI	Joint Council for the Welfare of Immigrants
LLM	Large language model
ML	Machine Learning
PAYE	Pay As You Earn
PLP	Public Law Project
RTI	Real-Time Information
RP	Review Process
TAG	Tracking Automated Government
UC	Universal Credit

PART ONE: THEORETICAL FRAMEWORK

Chapter 1

Introduction

In contemporary human society, rapidly developing digital technologies are increasingly applied in diverse areas of commerce, governance, and justice for ever more sophisticated tasks. Artificial intelligence (AI), specifically in the form of machine learning (ML), uses algorithmic training on datasets and large language models (LLMs) to generate human-like outputs in response to inputs. These outputs are increasingly used in the context of decision-making (DM). Some examples include AI industrial productions, e-commerce, medical care, education, e-government and the justice system. Automated processes are increasingly beneficial in numerous activities formerly executed by human beings, either augmenting or replacing human operatives. Although the economic and efficiency advantages of automated machine replacements to expensive and time-consuming human input are significant, there is nevertheless concern and uncertainty about the potential of AI to replace human DM roles involving complex and subjective interpretations that profoundly affect people's lives. Examples of this issue have come to the attention of communities and the media when perceived injustices have been demonstrated, and the risks of using AI to assess people's eligibility for government and health services, debt relief, or immigration status have become real issues. This research aims to explore the main types of risks and challenges in applying AI technologies in administrative justice processes, specifically, the challenges to review administrative decisions

This introductory chapter discusses the background and scope of the issues associated with AI in DM. It identifies the research problem, its significance, describing the objectives and the research questions. This is followed by an explanation and justification of the methodology and theoretical underpinnings used to achieve the conducts and aims of the research. The chapter highlights the originality of this research and points to the gap in knowledge it seeks to fill, while also providing an overview of the thesis structure.

1.1 Research Background

1.1.1 Contemporary Technologies and Decision Making

Recently, AI and ML algorithms have been introduced in many aspects of administrative DM processes (DMPs) and governmental actions. This gives rise to several fundamental ethical issues. The ethical issues and challenges raised concern advancing technologies' impacts on core administrative justice values, such as fairness, transparency, and accountability. There is also a major underlying issue of concern that the emerging AI-based systems need a 'guarantee' of individuals' universal rights, which is currently lacking. Ethical and legal concerns caused by AI, both of which intersect with the focus of this thesis, are impactful in the field of administrative justice. Hence, examining the ethical and legal issues and problems of using AI in the administrative justice DMP is a central aim of this research.

The use of AI may increase or improve one value, such as efficiency, at the expense of another core value, such as transparency, especially in administrative DMPs.¹ Transparency in this context refers to disclosing details about the process and results. In stark contrast with this definition, automated decisions rely mainly on complex and vague AI algorithms, though arguable, that have operations and implications requiring technological expertise and knowledge beyond the scope of judicial and legal authorities.² Thus, these systems have attracted concerns reflected in the description of algorithms as 'black boxes', which operate behind multiple layers of algorithmic complexity and opacity, understood only by computer experts or designers.³

¹ Michael Veale and Irina Brass, 'Administration by Algorithm? Public Management Meets Public Sector Machine Learning' in Karen Yeung and Martin Lodge (eds), *Algorithmic Regulation* (Oxford University Press 2019) 121-149.

² Generally see Markus D Dubber, Frank Pasquale and Sunit Das, *The Oxford Handbook of Ethics of AI* (Oxford University Press 2020) .

³ Karen Yeung, 'Why Worry about Decision-Making by Machine?', *Algorithmic Regulation* (Oxford University Press 2019) 21-48.

Moreover, some cases have indicated that automated decision-making (ADM) systems are not responsible and accountable in the same ethically relevant sense as traditional human DMPs.⁴ Accountability demands that obligation relationships which support the AI designers' and governmental users' accountability, as well as the interests of people impacted by AI systems, are established.⁵ However, the acknowledged lack of transparency in automated systems poses a problem in guaranteeing the achievement of this aim of accountability. Moreover, the opacity of ADM systems and lack of accountability may be further raised due to the involvement of stakeholders, from software designers and programmers to public bodies purchasing systems from companies.⁶

Furthermore, data-driven technologies rely on data containing complex social and historical patterns, which potentially hold cultural biases and discrimination. Yet, AI systems, despite correctly operating from the technical side, may not be better than human objectivity combined with nuanced judgment in DM. Academics have highlighted the problem of discrimination and lack of fairness based on democratic principles in automated decisions, stating that it is often due to the data that was fed to the ADM systems in the beginning.⁷ Technically, the machine builds on and learns from the available data, which may carry biased perspectives against certain groups, such as disadvantaged or marginalised sections of society.⁸ This factor could result in the continuation of the problem of biases in decisions.

⁴ GOV.UK, 'A Guide to Using Artificial Intelligence in the Public Sector - GOV.UK' (2019) <<https://www.gov.uk/government/publications/understanding-artificial-intelligence/a-guide-to-using-artificial-intelligence-in-the-public-sector>> accessed 21 March 2022.

⁵ Joshua A Kroll, 'Accountability in Computer Systems' in Markus D Dubber and others. (eds), *The Oxford Handbook of Ethics of AI* (Oxford University Press 2020) 180-196.

⁶ Lee A Bygrave, 'Minding the Machine v2.0: The EU General Data Protection Regulation and Automated Decision-Making' in Karen Yeung and Martin Lodge (eds), *Algorithmic Regulation* (Oxford University Press 2019) 248-262.

⁷ Abe Chauhan, 'Towards the Systemic Review of Automated Decision-Making Systems' (2021) 25(4) *Judicial Review* 285, 285.

⁸ Jack Maxwell and Joe Tomlinson, 'Proving Algorithmic Discrimination in Government Decision-Making' (2020) 20 *Oxford University Commonwealth Law Journal* 352. See also, Joe Tomlinson, Jack Maxwell and Alice Welsh, 'Discrimination in Digital Immigration Status' (2021) 42 *Legal Studies* 315, 316.

Thus, an algorithm, which has been trained on data reflecting existing biases between different groups, namely disability, age and race, may systematically reproduce those issues.⁹ For example, Maxwell and Tomlinson suggest that the algorithm might detect and integrate a visible link between criminal behaviour and race (or another race-related variable, such as location), making it more inclined to foresee that individuals from these communities will commit crimes in the future.¹⁰

Ethical issues in using ADM systems may lead to serious disputes and cases about these types of decisions within Administrative Justice Institutions (AJIs) (courts, tribunals, and ombudsmen). Some scholars have mentioned that there are challenges in those cases for both reviewers and affected people. Tomlinson and others identified key practical challenges limiting effective judicial review functions, including the opacity of AI, which led to difficulties in access to information and personal data.¹¹

Similarly, obstacles in fairly reviewing ADM can arise due to opacity issues, the level of disclosure required, or when AJIs lack expertise to assess the sufficiency of evidence provided. Moreover, due to ADM systems being opaque or difficult to understand, it may be difficult to determine the competencies and jurisdictions of AJIs. This is particularly true when their decisions are based on coding systems and ML technologies.¹² Additionally, Yeung raises concerns regarding ADM systems that affect the principle of 'right to be heard' for people, such as the absence of humans taking responsibility, expert participation and due process, and lack of opportunities for contestation of judgments.¹³

⁹ Ibid.

¹⁰ Maxwell and Tomlinson (n 8).

¹¹ Joe Tomlinson, Adam Harkens and Katy Sheridan, 'Judicial Review Evidence in the Era of the Digital State' (2020) (OCT) Public Law 740-760.

¹² Rebecca Williams, 'Rethinking Administrative Law for Algorithmic Decision-Making' (2021) 42(2) *Oxford Journal of Legal Studies*, 468–494.

¹³ Yeung (n 3), 36.

1.1.2 Understanding Administrative Justice Institutions (AJIs)

In the UK, the landscape of ‘review’ in administrative justice is underpinned by a network of institutions designed to ensure that public DM is fair, lawful, and effective. While this research focuses on examining the ability of AJIs to review and address ADM issues and cases explained in the previous chapter, it is vital to understand the meaning and roles of these institutions in addressing the ADM’s DMP issues.

The UK has evolved a complex set of AJIs and processes of review to redress cases, including courts, tribunals, ombudsmen, and complaints procedures internal to the body whose decisions give rise to disputes at issue.¹⁴ They are intended to enhance the level of quality of DMP, assist citizens in resolving conflicts with the government, and contest the judgments of public bodies.¹⁵ This developed framework seeks to achieve AJ by examining public bodies’ actions through redress mechanisms, which support the principles of good administration by giving individuals an accessible way to report the wrongdoings of public authorities and obtain remedies.¹⁶

1.1.2.1 Courts

When it comes to AJ, the courts are a traditional tool that is essential for resolving disputes with government agencies, local governments, and other public entities. These cases can be broadly categorised into judicial review and legal appeals.¹⁷ However, a person may only turn to a court for a remedy when a public body has allegedly violated the law in some way, whether by an act, a decision, or a failure to act or make a decision.¹⁸ By reviewing disputes contesting the legality of decisions taken by public authorities, these courts are in a position to ensure that such entities comply with the law and do not violate the rights of individuals. The procedure can be limited by intricate procedural

¹⁴ Tom Mullen, ‘A Holistic Approach to Administrative Justice?’ in Michael Adler (ed), *Administrative Justice in Context* (Hart Pub 2010) 215.

¹⁵ For a general overview, see Sarah Nason, ‘Oversight of Administrative Justice Systems’ in Marc Hertogh and others (eds), *The Oxford Handbook of Administrative Justice* (Oxford University Press 2021).

¹⁶ Ibid.

¹⁷ Mullen (n 14), 387.

¹⁸ Ibid., p. 388.

restrictions, and the parties' ability to establish facts can be constrained by the rules of evidence.¹⁹ Individuals have to hire lawyers to defend them or stand in their own defence, which is considered a barrier and a restriction to their rights when dealing with governmental institutions.²⁰

Administrative decisions may be contested in court under Judicial review for the following reasons: (i) incorrect understanding of the relevant law or improper application thereof; (ii) insufficient factual support for the decision; (iii) discretion not being properly exercised; or (iv) the process followed being unfair.²¹

One of the most important conditions for Judicial review is 'standing' (*locus standi*),²² which limits access to Judicial review to those who can be said to have a legitimate claim, and who have been directly harmed by the administrative act or decision in question.²³ Section 31(3) of the Supreme Court Act 1981 contains the legal prerequisites for standing, stating that:

(3) No application for judicial review shall be made unless the leave of the High Court has been obtained in accordance with rules of court; and the court shall not grant leave to make such an application unless it considers that the applicant has a sufficient interest in the matter to which the application relates.²⁴

This is referred to as the 'sufficient interest test', and it serves as the foundation for determining who qualifies to submit a judicial review application.²⁵

Courts' adjudicative procedures frequently take a formalised approach.²⁶ One of the characteristics of courts is the fact that court decisions frequently have a binding impact on the parties to the case. In

¹⁹ Ibid.

²⁰ Ibid.

²¹ Paul Craig, *Administrative Law* (6th edn, Sweet & Maxwell 2008) 52.

²² John Stanton and Craig Prescott, *Public Law* (Oxford University Press 2022), 433

²³ Ibid.

²⁴ Supreme Court Act 1981 available at <https://www.legislation.gov.uk/ukpga/1981/54/contents/enacted> accessed on 17 Feb 2023.

²⁵ Stanton and Prescott (n 22), 447.

²⁶ Mullen (n 14).

light of this, if the court decides that a public body unfairly refused a person's access to a benefit, the public body is required to give the rejected person the benefit.²⁷ It is clear that judgments are binding on all parties to an action, including governmental bodies, despite some technical limitations on the available remedies in specific circumstances. Moreover, the judiciary is held to a high standard of impartiality and independence from the executive branches when DM that have direct impacts on individuals.²⁸ Additionally, judicial review actions must be filed within specific time frames and with the court's approval, which must be requested in writing or orally, on the grounds that the situation demonstrates a reasonable case of dispute.²⁹

Furthermore, there are several remedies offered when administrative action is considered to be unlawful. The most commonly sought remedies in judicial review are injunctions in public law, declarations, and quashing, prohibiting, and mandatory orders.

Injunctions are used in private law to prevent the commission of unlawful acts, while mandatory injunctions compel the performance of legal duties.³⁰ Injunctions serve similar functions in public law, by preventing public authorities from acting *ultra vires* or, in the case of mandatory injunctions, requiring them to make those decisions or perform those acts which are legally required of them.³¹ However, those who violate the law, as stated in a court decision, may very well be held liable for the simple reason that they have violated the law as declared; no additional liability comes as a result of the existence of the declaration. This can be contrasted with the position regarding injunctions, whereby a breach may ultimately result in liability for contempt of court.³² Additionally, a quashing order, in cases when illegality is discovered during a review, remains the best and most effective

²⁷ Ibid.

²⁸ Ibid.

²⁹ The Civil Procedure Rules 1998, Part 54.7 (8) Judicial Review.

³⁰ Mark Elliott and Jason NE Varuhas, *Administrative Law: Text and Materials* (5th edn, Oxford University Press 2017), 438.

³¹ Ibid.

³² Ibid.

remedy. Such remedies have the effect of quashing administrative actions that the reviewing court determines to be illegal, with retroactive effect.³³

On the other hand, because judicial review primarily only addresses the legality of administrative decisions, the courts have a more constrained ability to offer an effective remedy compared to other redress mechanisms, for example, tribunals and ombudsmen.³⁴ Moreover, from the standpoint of the complainants, one of the weaknesses of judicial review is the requirement for legal advisors, as not all people (e.g., citizens) can afford the high expenses associated with such advice.³⁵ Judicial review may thus be less accessible than alternative redress procedures, such as ombudsmen, for example, where there is no necessity for legal representation.

Thomas and Tomlinson raised concerns over the volume and cost of caseloads, explaining that judicial review is a costly, lengthy, and complex legal process requiring the skills of senior judges.³⁶ The overwhelming caseload can result in delays, both in the courts and in administration.³⁷ Additionally, it has been recently highlighted that the prohibitive expense of accessing judicial review comprises an insurmountable barrier for many would-be litigants. Regardless, after a favourable judicial review, there is a chance for delay, as well as the additional expenditures brought on by such delays.

For example, if an initial government decision has been overturned by the court, a new decision will then be made by the appropriate public body, but the courts do not set a deadline for reconsidering the decision; consequently, weeks, months, or even years may pass before the task is completed. Additionally, according to Buck, Kirkham and Thompson (2011), the extent to which public administration complies with court orders is unknown, since the implementation of court orders is

³³ Ibid.

³⁴ Brian Thompson, 'The Place of Judicial Review in the Administrative Justice System' (2015) 4 *Judicial Review* 417-438.

³⁵ Ibid, 418.

³⁶ Robert Thomas and Joe Tomlinson, *Immigration Judicial Reviews* (Springer International Publishing 2021).

³⁷ Ibid.

not generally followed up.³⁸ Hence, based on the studies conducted to date, it appears that judicial review may only have a limited impact on the general effectiveness of remedies for complaints against administrative decisions made by public bodies.

1.1.2.2 Tribunals

Characteristics related to court processes, such as high costs and delays, make turning to courts difficult in reviewing all types of citizen issues against public bodies.³⁹ The effect of the state's expanding social intervention, as well as the rise in the rights and responsibilities of common people, made it necessary to give the latter additional ways to resolve their conflicts with the government in addition to traditional court proceedings, which led to the development of tribunals.⁴⁰ As a result, the intention for establishing tribunals was to provide citizens with an additional and independent institution to settle their grievances against the unlawful actions and decisions of public authorities.

The word 'tribunal' refers to a broad range of bodies of varying compositions and purposes, including statutory, special, and quasi-judicial tribunals.⁴¹ Regarding the similarity between courts and tribunals in their nature of procedures, they are both part of the judicial system. This means that they follow an adjudicative process and are independent from administrative bodies, as described by Franks, who clearly took the view that tribunals should be independent from government departments, stating that:

Tribunals are not ordinary courts, but neither are they appendages of Government Departments... We consider that tribunals should properly be regarded as machinery

³⁸ Trevor Buck, Richard Kirkham and Brian Thompson, 'Time for a 'Leggatt-Style' Review of the Ombudsman System?' (2011) 1 Public Law 20.

³⁹ Mullen (n 14).

⁴⁰ Ibid.

⁴¹ Kieran Bradley, 'Tribunals and Adjudication' Peter Cane, and others (eds), *The Oxford Handbook of Comparative Administrative Law* (2020; online edn, Oxford Academic, 15 Dec. 2020), 765.

provided by Parliament for adjudication rather than as part of the machinery of administration.⁴²

Contrarily, courts and tribunals differ in that tribunals generally have a less formal and simplified procedure, and a more informal atmosphere.⁴³ From a legal perspective, in TCEA 2007, there is no clear requirement that tribunals adhere to a particular procedural approach.⁴⁴ Tribunals, therefore, deal with disputes involving various aspects of public governance in diverse ways. Some tribunals have taken a largely adversarial approach, allowing the parties the right to an oral hearing and the submission of proof to strengthen their case (e.g., for asylum and immigration appeals).⁴⁵ Conversely, inquisitorial procedures have been used by other tribunals (e.g. for cases of disputed social security and child support payments), wherein judges take a more active role in the processes.⁴⁶

Tribunals' decisions are as binding on public authorities as those of courts.⁴⁷ Generally, parties will agree to accept the tribunal's decision, unless they decide to challenge it via legal procedures. In rare cases where a public authority refuses to implement a tribunal's decision, then judicial enforcement of a tribunal's decision can be requested.⁴⁸ In practice, tribunals provide people with a cheap and simple way to complain about defective administrative decisions.⁴⁹ As a result, tribunals achieve one of the basic aims of AJ by giving people a way to hold the government accountable. Additionally, by assisting public bodies in learning from their errors, tribunals play a role in enhancing first-instance DM and advancing the principles of AJ.⁵⁰

⁴² Sited in Stanton and Prescott (n 22).

⁴³ Mullen (n 14).

⁴⁴ Mark Elliott and Robert Thomas, *Public Law* (Oxford University Press 2017), 709.

⁴⁵ Ibid.

⁴⁶ Ibid, 711.

⁴⁷ Robert Thomas, 'Current Developments in UK Tribunals: Challenges for Administrative Justice' in Sarah Nason (ed), *Administrative Justice in Wales and Comparative Perspectives* (University of Wales Press 2017), 184.

⁴⁸ Elliott and Thomas (n 44).

⁴⁹ Thomas (n 47), 184.

⁵⁰ Ibid.

Regarding appointments to tribunals, the TCEA 2007 changes included a provision that, in many ways, equates tribunal members to judges of courts. Tribunal judges, who preside over tribunals, are considered members of the 'judiciary' for the purposes of, among other things, the judicial independence protections outlined in Section 3 of the Constitutional Reform Act of 2005. Additionally, all tribunal judges are chosen by the Lord Chancellor or the Crown (at his proposal) under sections 2 and 3 of the TCEA 2007, and tribunal judges are only subject to dismissal by the Lord Chancellor and only for incapacity or misbehaviour.⁵¹

- Appeals to First-Tier and Upper Tribunals

The Tribunal Procedure Committee was established by the TCEA 2007 and is tasked with creating the Tribunal Procedure Guidelines for FTTs and UTs.⁵² By creating tribunal rules that can be easily understood and which quickly and effectively manage cases, the tribunal system can be clearer and more accessible to users. Although each chamber has its own set of regulations, there are many similarities among them.⁵³

The FTT and UT are divided into chambers; the FTT initially had three chambers, for Social Entitlement; Health, Education and Social Care; and War Pensions and Armed Forces Compensation. Two further chambers were introduced in 2009 for Lands, Property and Housing; and Tax. A General Regulatory Chamber was established a year later.⁵⁴ The Administrative Appeals Chamber of the Appellate Tribunal hears appeals from either of these chambers. Significantly, the TCEA 2007 Section 3(5) gives the UT the position of being a 'superior court of record'. This indicates that it has an equal standing to the High Court.⁵⁵ The FTT's function is to receive appeals against public bodies' decisions. The UT's primary

⁵¹ Elliott and Varuhas (n 30).

⁵² Section 22, Tribunals, Courts and Enforcement Act 2007 .

⁵³ Stanton and Prescott (n 22).

⁵⁴ Thompson, (n 34), 436.

⁵⁵ Stanton and Prescott (n 22).

function is to consider appeals of the FTT's judgments. Thus, for the regions encompassed, this gives the system a single structure via the FTT and a single appeal path to the UT.⁵⁶

Each chamber has a President under Section 7(2) of the TCEA, and the Senior President of Tribunals administers the juridical direction for the entire system.⁵⁷ Judges of the FTT and UT are each allocated to a specific chamber, but it is possible for judges who meet the necessary qualifications to be enabled to rule in cases in other chambers.⁵⁸ Thus, the structure allows expertise to be defined through the chambers system, but because those chambers are part of a single entity, judges can be distributed freely across chambers as needed.⁵⁹

The FTT issues a judgment after checking the error in a decision. If the FTT makes an error of law, it is the only matter that can be appealed from the FTT to the UT and only with permission, as per TCEA 2007 Section 11(1) and (4):

(1) ... the reference to a right of appeal is to a right to appeal to the Upper Tribunal on any point of law arising from a decision made by the First-tier Tribunal...

(4) Permission (or leave) may be given by:

(a) The First-tier Tribunal, or

(b) The Upper Tribunal, on an application by the party.⁶⁰

If the challenge is upheld by the UT, the initial judgment could be annulled.⁶¹ The UT has the option to keep the initial judgment on the grounds that the legal mistake did not make it void. If the UT determines that the original judgment cannot hold, it must then choose whether to return the matter to the FTT for further consideration or remake the judgment.⁶²

⁵⁶ Mark Elliott and Robert Thomas, *Public Law*, 4th ed, (Oxford University Press 2020), 343.

⁵⁷ Tribunals, Courts and Enforcement Act 2007.

⁵⁸ Elliott and Varuhas (n 30).

⁵⁹ Ibid.

⁶⁰ Tribunals, Courts and Enforcement Act 2007.

⁶¹ Stanton and Prescott (n 22) 607.

⁶² Ibid.

In exceptional circumstances, the FTT may examine its own decision according to TCEA 2007, Section 9, in order to correct any accidental mistakes in the decision itself, modify its rationale, or set aside the decision and then make a new decision. Similar processes are open to the UT with respect to its own judgments under Section 10.

Any point of law arising from a decision made by the UT may be appealed from the UT to the Court of Appeal.⁶³ However, an appeal can only be filed with the Court of Appeal or the UT's own consent. When considering cases from the FTT, the Court of Appeal has authority similar to that of the UT. Consequently, if the Court of Appeal supports the UT's appeal, the ruling could be changed. In this case, it may either refer the matter to the UT, or revise the judgment.⁶⁴

According to Mullen, challenging the merits of administrative decisions is the 'gold standard' for redressing citizens' grievances in the tribunals.⁶⁵ Unlike the courts, tribunals have full jurisdiction to correct errors of fact and can re-exercise any discretion possessed by the administration. This means that citizens have the right to challenge before tribunals the merits of administrative decisions made by public bodies.

In the tribunal process of review, the tribunal either: (1) upholds the original decision, and thus considers the original decision to be valid, whereby it can be appealed in a higher court; or (2) decides that there is indeed an error and accepts the appeal. In this case, the tribunal may correct the decision, and its decision is binding on the parties. In particular, the tribunal will need to decide what remedy to give, depending on the area of the complaint.⁶⁶ There are different remedies that the tribunal has

⁶³ TCEA 2007 Section 13(6), Appeals from the Upper Tribunal to the Court of Appeal Order 2008, SI 2008/2834.

⁶⁴ TCEA 2007 Section 14(2)

⁶⁵ Tom Mullen, 'Access to Justice in Administrative Law and Administrative Justice' in E. Palmer and others (eds), *Access to Justice: Beyond the Policies and Politics of Austerity* (Hart: Oxford 2016) 73.

⁶⁶ Stephen Taylor and Astra Emir, *Employment Law: An Introduction* (5th edn, Oxford University Press 2019) 531.

the power to grant, such as compensation, prohibiting or stopping an action, quashing a decision, or declaring a right.⁶⁷

1.1.2.3 Ombudsman

UK ombudsmen can be classified into two types, depending on their jurisdiction: unified and specialist ombudsmen. Unified public sector ombudsmen have broad jurisdiction, encompassing various public services, while specialist ombudsmen focus on specific types of disputes. Based on their institutional position, ombudsmen can also be classified as legislative or executive ombudsmen.⁶⁸ However, the most recent update of the ombudsman structure instituted four separate ombudsman offices, each responsible for different sectors of public services, as described below.

First, the Parliamentary Health Services Ombudsman (PHSO) oversees complaints concerning UK government departments, including the NHS and other selected UK public organisations. Its role involves the investigation of grievances linked to maladministration, service deficiencies, and instances of injustice. It is vital to point out here that although the PHSO and Parliamentary Ombudsman (PO) are two separate offices, these roles are in fact performed by the same individual.⁶⁹

Second, the Local Government and Social Care Ombudsman (LGSCO) manages complaints associated with local government authorities, including councils, social care providers, and similar entities within.⁷⁰

⁶⁷ Hilaire Barnett, *Constitutional & Administrative Law* (12th edn, Taylor and Francis 2017) 742.

⁶⁸ Budur Alnefaie, 'The UK Public Sector Ombudsmen : A Doctoral and Socio-Legal Analysis on the Possibility of Transplanting an Ombudsman into Saudi Arabia Inspired by the UK Model', (2022), PhD thesis in University of Glasgow.

⁶⁹ Stanton and Prescott (n 22) 603

⁷⁰ Local Government Act 1974, Section 24.

Third, the Housing Ombudsman addresses complaints pertaining to social housing providers. Its responsibilities encompass the resolution of disputes between landlords and tenants, housing management issues, and service-related complaints.⁷¹

Fourth, the Property Ombudsman (TPO) is responsible for resolving conflicts between consumers and property professionals, such as estate and letting agents. Its main area of concern is the resolution of issues associated with property transactions, including buying, selling, or renting properties.

The procedure that is used to file a complaint with the ombudsman is an essential aspect of accessibility. In general, citizens have no direct access to an ombudsman, and the ombudsman can only investigate complaints of maladministration received by them from an MP, which is described as the 'MP filter', as described previously.⁷² For example, the complainant to the PO is required to submit a formal complaint to an MP, who is then able to forward the complaint to the PO.⁷³ However, in some cases, individuals have the option of submitting their complaints directly to an ombudsman, which can be done by filling out a digital complaint form, calling or writing to them, or submitting complaints in person.⁷⁴

When a complaint is submitted through an MP, it undergoes a series of checks to determine if it falls within the particular ombudsman's jurisdiction.⁷⁵ If it does, an examination is conducted to assess whether there is evidence of administrative failure, whether such failure has led to personal injustice, and whether the ombudsman's involvement is likely to secure a meaningful remedy. The ombudsman typically expects the complainant to have previously approached the relevant authorities to seek

⁷¹ Mark Elliott and Jason NE Varuhas, *Administrative Law: Text and Materials* (5th edn, Oxford University Press 2017) 781.

⁷² Stanton and Prescott (n 22) 610.

⁷³ Andrew Le Sueur, Maurice Sunkin and Jo Eric Khushal Murkens, *Public Law: Text, Cases, and Materials* (4th edn, Oxford University Press 2019) 599.

⁷⁴ *Ibid.*

⁷⁵ Mary Seneviratne, 'Ombudsman's Section' (2002) 24 *Journal of Social Welfare and Family Law*, 463.

redress. Not all cases that remain after this initial process lead to a formal statutory investigation and the issuance of an official report.⁷⁶

In recent times, ombudsmen have started to adapt a more flexible strategy, leading to faster resolution.⁷⁷ For example, where it is feasible to quickly and efficiently resolve matters by making inquiries with the involved department, this approach is taken.⁷⁸ However, if a resolution cannot be reached through these means, a formal statutory investigation is initiated. The subsequent investigations usually conclude either with the complaint being upheld, when the ombudsman finds fault on the part of the organisation that has not been addressed, or not being upheld, when the investigation does not find evidence of wrongdoing or failure on the part of the organisation involved.⁷⁹ A report should be shared with the relevant department detailing the conclusions and recommendations for a remedy (where applicable). The final report is subsequently provided to both the referring MP and the concerned department.⁸⁰

Furthermore, the provision of remedies for individuals who have been wronged as a consequence of maladministration is the principal duty of the office of the ombudsman. In general, ombudsmen will recommend that public bodies acknowledge their failure, apologise to the individual who was wronged, improve and review their services and procedures, and/or provide monetary redress for the actual loss as well as any delay, inconvenience, or distress that was caused as a result of the situation.⁸¹ Since there are no predetermined rules for determining the size of the financial settlement, the different ombudsmen in the UK employ a variety of approaches to determine appropriate compensation awards.⁸²

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Stanton and Prescott (n 22).

⁷⁹ Stanton and Prescott (n 22) 613.

⁸⁰ Seneviratne (n 75).

⁸¹ Mary Seneviratne, *Ombudsmen: Public Services and Administrative Justice* - (Butterworths LexisNexis 2002) 55.

⁸² Ibid.

These recommendations are not legally enforceable, but Councils are obliged to explain publicly why they are not implementing them if they choose not to do so. Additionally, investigations conducted by ombudsmen are not of a judicial character; as a result, investigations conducted by ombudsmen are not adversarial in the same way that procedures in the courts are, and complainants do not have the right to intervene in these investigations.⁸³ There is no right to appeal that may be used by either the public authority or the complainant, and the judgments that are reached as a result of the investigations conducted by an ombudsman are regarded as being final. Nonetheless, the findings of the ombudsman may be challenged through the process of judicial review.⁸⁴ However, the correctness of the ombudsman's decisions themselves is not the major interest of the judicial review of such decisions; rather, the key concern is whether or not those decisions were taken in compliance with the law.

Together with grievance resolution procedures, courts, tribunals, and ombudsmen are components of the larger system of AJ. Returning to the main purpose of this thesis, the next section explains the research problem and gap regarding whether AJs can handle and examine complaints resulting from ADM, and the requirements for these institutions to be able to give justice to those who are impacted by these decisions.

1.2 Statement of the Problem

The AI and ML revolutions are transforming many governmental DMPs. However, little research has explored the extant impacts, challenges, and opportunities associated with addressing the issues resulting from ADM used in administrative decisions. In this context, the UK offers an interesting case to study ADM issues in the context of AI deployment in administrative DM. There is a question of

⁸³ Law Commission Public Services Ombudsman, 'PUBLIC SERVICES OMBUDSMEN SUMMARY OF CONSULTATION PAPER' (2010), *Gov.UK* The text of this report is available on the Ombudsmen project page of the Law Commission's website at www.lawcom.gov.uk.

⁸⁴ Richard Kirkham, 'Challenging the Authority of the Ombudsman: The Parliamentary Ombudsman's Special Report on Wartime Detainees' (2006) 69 *The Modern Law Review* 792.

knowledge among legal experts about the capacity of existing AJs to handle cases and disputes involving automated decisions, particularly relating to administrative law.⁸⁵

This research, therefore, focuses fundamentally on exploring the main emerging challenges in the administrative justice system, particularly those which are related to the review process (RP) and addressing disputes about ADM and how to respond to those challenges. The identification of the challenges has been clearly identified as a gap in the literature, and there is an urgent need for more research into the aspects of ADM issues of review in AJs.⁸⁶ The research involves exploration and thus undertakes theoretical and empirical approaches to cover the wide range of challenges in RP. Additionally, one objective of this research is to determine the extent to which AJs are able to review and assess automated decisions. This shall enable it to identify the basics needed by such institutions to achieve natural justice for citizens and other affected parties despite the issues created by automated decisions.

1.3 Research Significance

This research is significant because there are serious concerns about the transparency, fairness, and accountability of the use of ADM in administrative decisions, due to the way in which these decisions are made. The opacity in the operation of these systems and the lack of technological expertise in AJs are important reasons for the need to study the reviewers' capacity to resolve disputes that arise from ADM. The issues related to reviewing automated decisions and addressing the cases that arise from them in the UK require finding common ground between legalists, technologists, and people affected by ADM systems to achieve a balance for administrative justice. This thesis aims to explore ADM challenges in RP in AJs and shed light on how to respond to and deal with these challenges. Not much

⁸⁵ Jennifer Cobbe, Michelle Seng Ah Lee and Jatinder Singh, 'Reviewable Automated Decision-Making: A Framework for Accountable Algorithmic Systems' (2021) FAccT 2021 - Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency 598.

⁸⁶ Ibid.

existing administrative justice literature has explored the question of what the emergent challenges of ADM in RP are and how to respond to them.

This thesis contributes to the limited literature exploring challenges in ‘using’ ADM in DMP and in ‘reviewing’ and ‘addressing’ the relevant cases. Specifically, this study will apply the typology model of administrative issues in DMP in the world of technology, such as the Cowan model of administrative issues in Chapter 3. Such typologies play an important role in social science research and are commonly applied throughout different phases of the research.⁸⁷ Using an existing typology is an effective tool, particularly in the process of organising and structuring data and ideas by jumping-starting the process of generating and exploring the types.⁸⁸

While scholars focus on the scope and types of errors and wrongs, potential for bias, and questionable legitimacy in ‘using’ ADM, the underlying types of ADM challenges that impact the administrative justice in RP have been neglected in the literature and need to be explored by researchers. Therefore, the study's primary goal is to create a typology model of the issues and challenges that face reviewers, such as judges, in the ADM world. Since existing challenges in RP are continually faced by the reviewers, research on how to redress such challenges is crucial, with a view to informing approaches to advancing administrative fairness, ensuring the legitimacy of ADM, and making conflict resolution accessible, empowering legal institutions to meet the technological knowledge needs.

Despite the developments in law and policies related to using ADM systems in the UK, there has not yet been a comprehensive legal framework which covers the key aspects of ADM issues in both DMP and RP. In this regard, this research pursues some responses to the legal gap in ADM RP through the exploring other laws and regulations outside the field of administrative law. In order to achieve this, it will contribute to existing literature by conducting an empirical document analysis method to

⁸⁷ David Collier, Jody LaPorte and Jason Seawright, ‘Typologies: Forming Concepts and Creating Categorical Variables’ in Janet M Box-Steffensmeier, Henry E Brady and David Collier (eds), *The Oxford Handbook of Political Methodology* (Oxford University Press 2008) 152-173.

⁸⁸ Ibid.

provide original data and updated cases from official textual documents and visual data regarding ADM RP issues and responses. This methodology gives rich data, which prevents the thesis from merely being descriptive and theoretical in nature. Therefore, it aims to avoid any issues in doctrinal approaches which may be unable to reveal related recent data about the challenges in RP of ADM's cases and how to respond to them.

Moreover, the thesis will achieve its originality by establishing a comparative link between the UK and other legal systems concerning policies and ADM regulations of RP. This approach aims to illustrate the way for the adoption of global policies, asserting their applicability in the UK due to shared similar issues. The legal scholars have not previously explored this aspect, indicating a gap in the existing literature. Consequently, this thesis intends to contribute to existing literature concerns by addressing and reviewing issues and disputes related to ADM.

This study examines the extent to which the AJs need to be able to review and redress cases against decisions made by ADM systems. It argues that (1) there are serious challenges in RP within AJs regarding ADM cases in the UK, (2) the ADM designers and developers must be aware of the legal knowledge and the administrative ethics that should be considered while designing their systems. This may consequently and indirectly improve the ADM fairness, transparency and accountability.

1.4 Objectives of the Research

This research aims to determine the ability of AJs to examine and resolve ADM's complaints. It therefore explores the challenges associated with reviewing ADM decisions and how to address them. It also explores the requirements for the UK system to effectively deliver justice to individuals affected by such decisions. To achieve these goals, it looks at some lessons and benefits from other laws and other jurisdictions. The research has outlined the following precise contents in order to achieve the research objectives:

1. Explore the history of e-government and ADM development in the UK
2. Analyse existing types of ADM systems in the UK context.
3. Explore the major typologies of DMP challenges in the ADM context that have led to an increase in grievances filed with the AJs.
4. Analyse the relevant documents to identify the challenges related to reviewing ADM issues in AJs.
5. Determine the extent to which different areas of law outside of administrative law can address the challenges faced by AJs in reviewing ADM issues.
6. Review how some global jurisdictions outside of the UK have attempted to address and regulate the challenges in reviewing ADM disputes related to the public sector.
7. The research will give recommendations and suggested reforms of solutions in the UK based on the conclusions presented throughout the study. By answering the research questions described in the following section, this study produces the following outcomes, identifying::
 - Suitable institutions that can deal with ADM in the UK
 - How reviewers and judges can be informed with the proper technical knowledge and needs in order to deal with the challenges of ADM systems.
 - Core regulation and legal suggestions that should be engaged in the UK administrative justice system to solve the challenges in RP of automated decisions, as well as keep up with ADM developments.

1.5 Research Questions

This research seeks to answer the following questions:

- What are the key issues/challenges for AJs in RP of ADM in administrative DMP in the UK?
- How do different UK laws respond to these challenges?
- Can the experience of other countries help in identifying responses to those issues?

While the main theoretical field of this research is the administrative justice and its relationships with ADM, the structure of the chapters will be designed in two ways based on the administrative justice process, as displayed in Figure 1.1. The administrative justice process has been divided into:

1. DMP (DMP), which includes the initial decisions by public bodies while applying rules and laws.⁸⁹ It can include decisions about welfare benefits, immigration status, housing allocations, or regulatory matters. These decisions are subject to administrative law principles to ensure they are lawful, reasonable, and fair.⁹⁰

2. RP, which includes the analysis of dispute resolution mechanisms available to challenge or appeal the decisions made by public bodies.⁹¹ Review systems include appeals to tribunals, judicial reviews to courts, and complaints to ombudsmen, which allow individuals to seek redress and ensure oversight of administrative decisions. These institutions are the main ones pertinent to the current research as explained above.

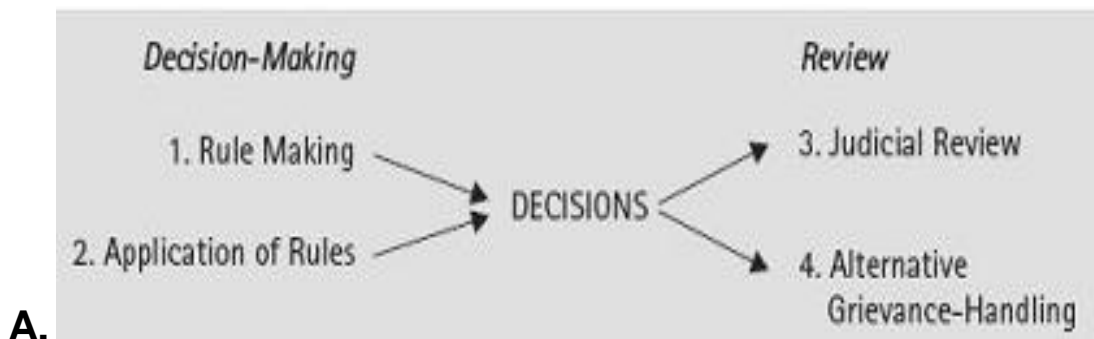


Figure 1.1: Administrative justice process⁹²

For the DMP dimension, Chapter 2 aims to review the development of ADM concepts within the field of administrative justice in the UK and when and how ADM systems have been existed in DMP. Chapter 2 also provides an overview of different examples of ADM systems used in administrative

⁸⁹ Simon Halliday and Colin Scott, 'Administrative Justice' in Peter Cane and Herbert Kritzer (eds), *The Oxford Handbook of Empirical Legal Research* (Oxford, OUP 2010) 31.

⁹⁰ Ibid.

⁹¹ Ibid 32.

⁹² Ibid.

DMPs, encompassing their design, purpose, and operations. Chapter 3 systematically explores the types of DM problems arising from the use of ADM systems from an administrative law perspective. These chapters explain the part of DMP in the field of ADM and pave the way to understand the types of challenges facing ADM RP.

For the RP dimension, the later Chapters from 4 to 7 provide a typology of the ADM challenges that reviewers in AJs face and what the responses to such challenges are. Due to the limited literature and the novelty of the research topics, particularly the challenges judges and reviewers face when addressing automated decisions, the research will employ a combination of doctrinal and empirical approaches to answer the research questions in these chapters.

1.6 Methodology

This study adopts a mixed-methods approach that combines doctrinal legal research, qualitative document analysis and comparative study to address the research questions comprehensively. The doctrinal component will systematically analyse primary legal regulations, case law, and legislative developments to reconstruct the applicable legal framework. Qualitative documentary analysis will examine policy papers, parliamentary debates, NGO reports, cases and other relevant texts to reveal contextual meanings, stakeholder positions, and implementation practices. Lastly, the comparative study will apply a standardised analytical framework across selected jurisdictions to identify other experiences regarding ADM in administrative justice. Integrating these methods will help enhance analytical depth, contextual understanding and uncover information that is currently lacking in the literature.

1.6.1 Doctrinal Legal Research

This thesis is a doctrinal study, focusing on describing and analysing the primary sources (legislation and case law) and secondary sources, including books, journal articles, reports, research and studies. The doctrinal method is conducted in the theoretical research, which can help with making

connections between multidisciplinary doctrinal strands⁹³ which are the ‘administrative justice’ and ‘AI technologies’ in this research. Doctrinal research is a common method employed by various groups of legal researchers.⁹⁴ Doctrine ‘has been defined as synthesis of various rules, principles, norms, interpretive guidelines and values’.⁹⁵ There is no universally accepted definition of the doctrinal method, but there are key characteristics that distinguish this form of research.

According to Hutchinson, the doctrinal method involves a thorough examination of relevant laws and legal cases to discover the applicable legal principles concerning the subject under investigation, along with identifying legal precedents and interpreting legislation.⁹⁶ This approach involves analysing legal principles to understand their evolution through judicial interpretations and legislative actions, to attempt to marshal these diverse strands into a cohesive legal approach.⁹⁷ This examination can be viewed as either normative, considering the moral implications, or purely theoretical in nature.⁹⁸ From these explanations of doctrinal methodology, this approach will be repeatedly used in all the thesis chapters.

1.6.2 Qualitative Document Analysis: Empirical Method

The doctrinal method used in this thesis paves the way for conducting empirical qualitative document analysis regarding the challenges in review and access to administrative justice. It is used as ‘a systematic procedure for reviewing or evaluating documents’.⁹⁹ This method is mainly used to explain behavioural legal issues, understand sources of problems in reality, and improve knowledge and

⁹³ Edward L. Rubin, Hans-W. Micklitz, Rob van Geste, *Rethinking Legal Scholarship: A Transatlantic Dialogue*, (Cambridge University Press 2018), 207-228,

⁹⁴ P. Ishwara Bhat, ‘Doctrinal Legal Research as a Means of Synthesizing Facts, Thoughts, and Legal Principles’ in P. Ishwara Bhat (ed), *Idea and Methods of Legal Research* (Oxford University Press 2020) 143-168.

⁹⁵ Terry Hutchinson and Nigel Duncan, ‘Defining and Describing What We Do: Doctrinal Legal Research’ (2012) 17 *Deakin Law Review* 1.

⁹⁶ Terry Hutchinson, ‘The Doctrinal Method: Incorporating Interdisciplinary Methods in Reforming the Law’ (2015) 8 *Erasmus Law Review*.

⁹⁷ Michael McConville and Wing Hong Chui, *Research Methods for Law* (Edinburgh University Press 2017) 3.

⁹⁸ *Ibid.*

⁹⁹ Glenn A Bowen, ‘Document Analysis as a Qualitative Research Method’ (2009) 9 *Qualitative Research Journal* 27.

solutions in practice from published documents.¹⁰⁰ A document analysis method was adopted in some research because the doctrine method has sometimes been criticised for its limited nature and lack of clarity. It may lack regular references to the context of problems supposed to be resolved, the purposes intended to serve or the effects in fact.¹⁰¹ Document analysis method offers a diverse range of information, including both official and personal content, textual and visual data.¹⁰²

Documents can refer to a wide range of material, including governmental reports, newspapers, institutional reports, judgements, and visual sources, such as photographs, video, and film.¹⁰³

Documentary analysis can be beneficial because of the stability of the data. In this research, the documents that are included in the analysis by this method will extract the data available from websites, such as expert evidence reports and government responses regarding ADM on Gov.UK, Parliament documents, ICO reports, courts, tribunals and ombudsmen's judgements and expert evidence in cases against automated decisions, government strategies and judges' published opinions in relation to ADM issues of review.

Documents published by some private institutions, such as Public Law Project (PLP) and Alan Turing Institutions' reports, surveys and access to information requests. Other documents included from newspapers published documents regarding public ADM cases and litigations, published radio podcasts and interviews such as PLP interview with Professor Tomlinson, and videos of some published trials and litigations, such as the Post Office Horizon scandal in the UK, and legal experts and law firms' published videos who have experience related to ADM. These documents have reported on

¹⁰⁰ Ibid.

¹⁰¹ Terry Hutchinson, 'Doctrinal Research : Researching the Jury' in Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (2nd edn, Routledge 2017) 72.

¹⁰² Lisa Webley, 'Qualitative Approaches to Empirical Legal Research' [2010] in Peter Cane and Herbert M. Kritzer *The Oxford Handbook of Empirical Legal Research* 2010, (Oxford University Press) 938.

¹⁰³ Sharan B Merriam and Elizabeth J Tisdell, *Qualitative Research : A Guide to Design and Implementation* (4th edn, John Wiley & Son 2015) 67.

studied or discussed reality-based issues that impact the UK judicial system on the role of review and address ADM cases.

After creating the document collection, the next step is to analyse the contents of those documents based on the aim of the study. At this stage, researchers have to choose between the uses of *content* or *thematic* analysis. Content analysis is usually conducted for quantitative studies, using numbers and statistics to make sense of data.¹⁰⁴ Thematic analysis, however, is not often conducted on statistical data but focuses on how people interpret explicit or hidden meaning from the documents as a qualitative approach.¹⁰⁵ Rationale for use of a qualitative approach in this legal research is provided in Chapter 4, which comprehensively explains this method and describes how to conduct the process of analysis.

This study argues that there is a lack of existing literature, regulations, and guidelines in the UK analysing responses to the challenges faced by courts and judges in addressing disputes pertaining to AI and ADM. These challenges are explained in detail in Chapters 3, 5, 6, and 7. For instance, Chapter 6 explains that the UK has yet to implement a comprehensive regulatory framework specifically tailored to AI and ADM systems that can be considered by judges while hearing cases. It also argues that the UK may benefit from other jurisdictions in their responses to that challenges and strategies regarding ethical considerations, including data privacy, fairness, and non-discrimination.

It is important to explore how other countries have dealt with the issues relating to the research questions because their AI policies in their government may be regulated in ways that can be beneficial to this research. Broadly, there are three different legal approaches for international responses to the common AI and ADM challenges. The first approach embodies a more general ‘legislative response’ to advanced methods of ADM as well as its many varied applications both in the private and public

¹⁰⁴ Michael Quinn Patton, *Qualitative Research & Evaluation Methods: Integrating Theory and Practice* (4th edn, SAGE Publications 2015) 84-169 .

¹⁰⁵ Merriam and Tisdell (n 103).

sectors.¹⁰⁶ Under this approach, regulatory reforms are focused on legal and regulatory oversight of all forms of ADM systems, without distinction to specific (legality) challenges related to public sector uses of ADM.¹⁰⁷ These legal models tend to focus on the mechanism of DM and legal concerns that apply equally to public and private sector DM, such as individual privacy or the transparency of the design and operation of ADM systems.¹⁰⁸ EU countries and the UK intend to adopt this approach through general data protection legislation (i.e., the GDPR in the UK).

The second approach embodies attempts to establish general policy guidelines or standards that address the types of public decisions that can be automated, and the risks associated with these processes.¹⁰⁹ In particular, it focuses on any justification requirements that should be applied to ADM for individuals or groups affected by automated decisions. Therefore, this approach appears to distinguish between public and private uses of ADM. It also attempts to implement administrative law standards of legality, procedural fairness (due process), and other legal values of reasonableness and proportionality in ADM used in public governance and DM, such as the ‘Directive on ADM’ issued by the Canadian government.¹¹⁰

A third approach focuses less on legislative reform to consider how courts can reframe administrative law principles and standards to review the accuracy, fairness or even lawfulness of administrative automated decisions.¹¹¹ This approach directs its focus to any existing or future role that courts might come to play in defining the boundaries between ADM and administrative DM. It aims to ensure that

¹⁰⁶ Lilian Edwards and Michael Veale, ‘Slave to the Algorithm? Why a “Right to an Explanation” Is Probably Not the Remedy You Are Looking For’ (2017) 16 *Duke Law & Technology Review* 18.

¹⁰⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 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) (*EUR-Lex*, 4 May 2016) <<https://eur-lex.europa.eu/eli/reg/2016/679/oj#document1>> accessed 3 June 2024.

¹⁰⁸ Lilian Edwards and Michael Veale, ‘Enslaving the Algorithm: From a “Right to an Explanation” to a “Right to Better Decisions”?’ (2018) 16 (3) *IEEE Security and Privacy* 46-54.

¹⁰⁹ See generally Karen Yeung and Martin Lodge, *Algorithmic Regulation* (Oxford University Press Oxford 2019).

¹¹⁰ ‘Directive on Automated Decision-Making’ (*Government of Canada*, 1 April 2020) <<https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32592>> accessed 4 June 2024. ‘The government is committed to using artificial intelligence in a manner that is compatible with core principles of administrative law such as transparency, accountability, legality, and procedural fairness.’

¹¹¹ Knight (n 211).

decisions that are administrative in nature are reviewed for their compliance with principles of administrative legality and human rights protection, as well as substantive judicial requirements of reasonableness and proportionality.¹¹²

Therefore, this research explores some international experiences to analyse multiple jurisdictions, in order to fill the gap of any insufficiency of responses to the research problems from the UK's system. However, this thesis does not rely entirely on a comparative study between the UK and other countries. Rather, for the purpose of policy considerations, it focuses on the UK, with special reference to the EU, Canada and Australia to suggest lessons from their experiences. It will also refer to the USA generally and briefly as a system that may have an appropriate approach in AI and ADM judicial review. The aim behind conducting this comparison is to explore international best practices, strategies, and policies concerning handling the issues of ADM.

By studying how other jurisdictions address AI and ADM challenges, it aims to gather best practices and effective regulatory strategies that can be adapted to the local context. Thus, it will help to build a robust and trustworthy framework for regulating AI and governmental ADM systems.

¹¹² Williams (n 12).

Chapter 2

The Developments of the Use of AI in the Administrative Decision-Making

Process in the UK

2.1 Introduction

The evolution of technology has significantly impacted various sectors, including government operations. Since at least the 1970s, legal scholars in the UK have been intrigued by the relationship between AI and law.¹¹³ This curiosity fostered a body of research that has evolved over decades, showcasing a growing intertwining of AI with administrative justice, eventually culminating in what is now referred to as e-government.

This chapter explores the fusion of these two concepts and their journey toward the adoption of ADM in public administration. It traces the historical development of the UK government's approach to AI, and categorises the types of systems currently in use. Crucially, to demonstrate how these theoretical concepts manifest in practice, this chapter integrates specific examples of ADM systems currently deployed by UK public bodies, including the EU Settlement Scheme (EUSS), Universal Credit (UC), and Automated Border Control (ABC) systems.

While the cornerstone of this research is to analyse the extent to which AIJs can review and assess ADM used by public bodies, understanding the types and methodologies of AI-based systems in administrative DMP is a crucial primer in order to study the legal implications of the related new technologies. This will pave the way for addressing the subsequent analysis of how AIJs review and assess them.

¹¹³ Maria Dymitruk, 'Artificial Intelligence as a Tool to Improve the Administration of Justice?' (2020) 8 Acta Universitatis Sapientiae Legal Studies 179.

2.2 AI Developments in UK Administrative Justice

The UK government has a longstanding history of employing computers and automation to facilitate services, data storage, and calculations, experiencing several waves of technological advancements. This chapter details the development of introducing AI technologies in the field of administrative DMP in the UK, leading to the current widespread adoption of ADM by public bodies. Initially, it is essential to indicate that there are overlapping terms pertaining to this field, cutting across computing, information systems, information technology (IT), and AI in the literature of the historical background of ADM. Although these terms may have different meanings and purposes, they all relate to automation and computerisation within government services.

The background provided in this chapter clarifies the historical development and implementation of AI and automation in UK governmental services. It sets the stage for a detailed examination of how ADM has influenced administrative justice, clarifying the government's journey toward an increasingly digital and automated administrative DM landscape. Understanding this progression is critical for comprehending both the potential benefits and challenges posed by ADM in the administrative justice DMP and review. Generally, computers and automation in the UK government context emerged over the course of five waves, as explained in the following sub-sections.

2.3 Automation in Administrative Service (1960s-1970s)

By the early 1970s, rapid developments in computer technology had accelerated the development of intelligent programmes and made them more practical, which resulted in the domination of automation perspectives. At the time, computers had been used in policy planning units for the processing of administrative and statistical data, and some cutting-edge automation projects were underway in the Ministry of Transport (for vehicle registration), the Home Office (the Police National

Computer), and the Lord Chancellor's Department.¹¹⁴ Moreover, as mentioned by Antonio Weiss, during the 1960s and 1970s, the British government was at the forefront of computerisation.¹¹⁵ The political backing was clear: Harold Wilson, the Labour Prime Minister, placed high expectations on science and technology ('the white heat of technology') to help him realise his vision for contemporary Britain.¹¹⁶ Weiss also mentioned that the digitisation was multifaceted in this era, when technological systems were increasingly used in government, such as the automation of the tax payment 'Pay As You Earn' (PAYE) service at the Inland Revenue.¹¹⁷

By 1972, the UK's efforts in technological reform were underscored by the presence of 4,640 trained IT staff within the government.¹¹⁸ These specialists were instrumental in establishing the Central Computer and Telecommunications Agency, a governmental unit responsible for developing approaches to project management. Despite this era of robust government support for technology, AI initiatives within the government experienced continuous criticism and financial challenges over the decades. In the 1970s, AI researchers faced numerous insurmountable limitations, primarily due to inadequate financing for AI programs, ethical concerns, and insufficient computer capacity. Consequently, AI projects and research entered a period of inactivity, commonly referred to as the "first AI winter", spanning from 1974 to 1980. This phase was marked by diminished enthusiasm and reduced investment in AI due to the aforementioned obstacles.

¹¹⁴ Peter Batey, 'Transport Modelling as an Aid in Structure Planning: A New Lease of Life for the SELNEC Model?' (1976) Working paper in Dept. of Civic Design, University of Liverpool .

¹¹⁵ Antonio Weiss, 'The Rise and Fall of UK Digital Government - Learning from the Past - Bennett Institute for Public Policy' (*University of Cambridge Bennett Institute for Public Policy*, 9 October 2019).

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

2.4 Expert Systems (1980s)

Despite these difficulties, some research in the 1980s began to generate feasible automated decision applications.¹¹⁹ 'Expert systems', for example, tried to capture and put into machines the rules and methods used by experts in specific domains, as well as build software that could automate various forms of expert DM in the military, management and education.¹²⁰ The expert system's distinguishing feature is its ability to review and explain its own rationale and decisions.¹²¹ It was created by extracting knowledge from human experts and incorporating it into a computer programme for knowledge processing, about both quantitative and qualitative data.¹²² Compared to other conventional programmes that require sequences of step prescriptions, expert systems are more intelligent, allowing inexact reasoning and dealing with incomplete data.¹²³

Additionally, the 1980s saw the UK government renew its relationship with AI, with the Alvey Programme started in 1983.¹²⁴ However, expert systems' popularity decreased as their limitations became evident, such as expensive prices, the need for regular and time-consuming upgrades, and a tendency to become less effective and accurate as more rules were included.¹²⁵ As a consequence, between 1987 and 1989, AI funding and private sector investment decreased, leading to the 'second AI winter'.¹²⁶ However, as the internet and the World Wide Web grew in popularity, they began to draw attention away from AI by providing other models for organising, processing, and disseminating data to AI systems.

¹¹⁹ Martijn Kuipers and Ramjee Prasad, 'Journey of Artificial Intelligence' (2022) 123 *Wireless Personal Communications* 3275.

¹²⁰ *Ibid.*

¹²¹ Chee Fai Tan and others, 'The Application of Expert System: A Review of Research and Applications' (2016) 11(4) *ARPN Journal of Engineering and Applied Sciences*, 2448-2453.

¹²² *Ibid.*

¹²³ *Ibid.*

¹²⁴ House of Lords, 'Artificial Intelligence Committee AI in the UK: Ready, Willing and Able?' (*Parliament UK*, 16 April 2017) <<https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/10002.htm>> accessed 5 October 2025..

¹²⁵ William J McClay, 'Surviving the AI Winter', (1995) *Logic Programming* (The MIT Press) 34-47.

¹²⁶ Kuipers and Prasad (n 140).

2.5 Decision Support Systems (1980s-1990s)

Despite interest in expert systems and AI in the late 1980s and 1990s, AI was increasingly applied to a wide range of particular tasks, including stock market forecasting, data mining for large corporate databases, and developing visual processing systems like automatic number plate recognition cameras.¹²⁷ Furthermore, ML techniques were used to search for statistical patterns and correlations in increasingly huge datasets, paving the way for more improvements to address the fundamental practical limitations of AI systems. At that time, the concept of decision support systems emerged, and was implemented in DMP.¹²⁸ During the 1980s and 1990s, technological advancements arose that would have a significant impact on the decision systems discipline. Because of their broad range of skills, they were used for better management, planning, resource utilisation and DM in local government. These systems had the features of being able to get and maintain descriptive knowledge (i.e., record keeping) and to interact directly with a decision maker.¹²⁹

However, public bodies' role in e-government and AI seemed to decrease during the early 1990s, which has been attributed to various factors, including institutional cultural barriers of 'hierarchy, uniformity, and solemnity',¹³⁰ which hampered the growth of technology in the UK government.¹³¹ Some argued that disregarding the successes and amplifying criticism of Britain's approach in IT led to the failure of many large-scale IT programmes to achieve their lofty goals in the 1990s.¹³²

¹²⁷ Pedro Domingos, *The Master Algorithm : How the Quest for the Ultimate Learning Machine Will Remake Our World* (London : Penguin Books 2016) 21.

¹²⁸ David Arnott and Graham Pervan, 'A Critical Analysis of Decision Support Systems Research' (2005) 20 *Journal of Information Technology* 67, 67.

¹²⁹ See generally, Peter Keen and Michael Scott Morton, *Decision Support Systems: An Organizational Perspective* (Addison-Wesley Series on Decision Support 1978).

¹³⁰ For more explanation about the UK administrative values of hierarchy, uniformity, and solemnity, see Helen Z. Margetts and Patrick Dunleavy, 'Cultural barriers to e-government', *National Audit Office (HC 704-III) in conjunction with the Value for Money report Better Public Services Through E-Government*, London (2002).

¹³¹ Helen Margetts, 'E-Government in Britain—A Decade On' (2006) 59 *Parliamentary Affairs* 250.

¹³² Weiss (n 136).

2.6 Modern E-Government (1990s to Present)

During 1987-1995, the British government focused on the development of the Internet and how to benefit from it in developing public services and DM in electronic government. Several academic researchers and software developers had realised that the Internet and database technologies created new opportunities for building and deploying decision support systems.¹³³ Furthermore, there was increasing international pressure for action to drive e-government progress, and at a G7 ministerial meeting in February 1995, it was agreed by participants that more government information from databases would be circulated online, and 'government online' pilot projects were begun.¹³⁴ The birth of 'government online' in the UK, with (Open.uk), included the full text of many charters quickly posted onto the internet. The major government portal (www.gov.uk) drew a lot of attention, and in 1995, the 'Government Information Service' was launched over (Open.UK), indicating that central government was making an attempt in principle to coordinate and centralise its internet presence by gathering information from various departments and presenting it to citizens from a single location.¹³⁵

By the end of 1995, the debate and interest in internet technologies had reached a fever pitch, as evidenced by an increase in parliamentary activity focused on what was called 'information age government'. Therefore, the UK government launched its first e-government strategy, which aimed to deliver all government services electronically by 2005.¹³⁶ One of the key milestones in the development of e-government in the UK was the launch of the Government Gateway in 2001.¹³⁷ This online portal allows citizens and businesses to access a range of government services using a single login, whereby government services become more integrated and accessible, with citizens being able

¹³³ Hemant K Bhargava, Daniel J Power and Daewon Sun, 'Progress in Web-Based Decision Support Technologies' (2007) 43 *Decision Support Systems* 1083.

¹³⁴ 'G7 Ministerial Conference on the Global Information Society - Publications Office of the EU' (1995) <<https://op.europa.eu/en/publication-detail/-/publication/7d69da62-55a9-4dcc-a361-9f75d10c0c2e/language-en/format-PDF/source-search>> accessed on 14 September 2023.

¹³⁵ Christine Bellamy and John A Taylor, *Governing in the Information Age* (Open University Press 1998) 101.

¹³⁶ Paul Beynon-Davies, 'Constructing Electronic Government: The Case of the UK Inland Revenue' (2005) 25 *International Journal of Information Management* 3.

¹³⁷ *Ibid.*

to request services outside of regular working hours for the first time. The Gateway was widely used and helped to promote the use of e-government services across the UK.¹³⁸

In 2010, the UK government launched a new strategy for digital government, which aimed to transform the way that public services are delivered. This included the creation of the GDS, a central agency tasked with driving the digital transformation of government services. Under the GDS, a number of high-profile initiatives were launched, including the development of the GOV.UK website, which provides a single online portal for all government services. The GDS also led the development of a number of digital services, including the online tax return and Universal Credit systems.

In recent years, the UK government has continued to invest in digital services, with a particular focus on improving the user experience for citizens. This has included the launch of a controversial new digital identity system and the development of a range of mobile apps to help citizen access government services on the go.¹³⁹ Overall, the UK has been at the forefront of e-government development, with a long history of innovation and investment in digital services.

2.7 ADM Systems in the UK

In the 2000s, most local authorities in the UK began making information available electronically via the internet, facilitating and encouraging the use of Web-based DM support systems.¹⁴⁰ These systems were enhanced by including new types of algorithms into their design. In 2007, with the availability of data and the Internet, these systems became more intelligent in DM, and the ADM systems we know today appeared. Computer DM approaches moved from being only support systems for decision-makers (decision support systems explained in 2.4) to being capable of DM without the involvement of people. Put another way, as unpacked throughout this thesis, humans have begun to rely on

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ Bhargava, Power and Sun (n 154).

computer decisions as *final* decisions, rather than as one component of multiple strands of evidence they might consider when forming their own final decision.

Data is used as an input in an ADM system, either to be analysed within a process, model, or algorithm, or to learn and generate new models.¹⁴¹ The rise of e-government and the availability of data on the Internet in the 1990s promoted the development of automated systems, wherein the quality of data available and usable in ADM systems is critical to the results. ADM technologies and applications can range from decision-support systems that make recommendations for human decision-makers to act on, sometimes referred to as ‘augmented intelligence’ or ‘shared DM’,¹⁴² to fully ADMPs that make decisions on behalf of individuals or organisations without human involvement.¹⁴³

ADM systems use and connect a wide variety of data types and sources depending on the goals and contexts of the system, such as robotics and sensor data for self-driving cars, identity data for security systems, medical records in health, financial data for public administration, and criminal records in law.¹⁴⁴ This can occasionally require massive amounts of data and processing power. ADM is also being used to make decisions about welfare and housing, credit and financial services, immigration, and employment, and it is expected to grow in popularity.¹⁴⁵ The next section explains more broadly the types and classifications of the ADM that are used in government.

The UK has seen a resurgence of investment and development in e-government and associated technology, and it currently enjoys a position as one of the best countries in the world in which to develop the e-government, AI, and ADM applications. The UK has a high degree of digitalisation, and in 2020 was ranked 7th in the UN’s ‘E-Government Survey’ of digitalisation in the public sector out of

¹⁴¹ Automating Society 2019 ‘AlgorithmWatch report’ (2022) available

<<https://algorithmwatch.org/en/automating-society-2019/>> accessed on 23 September 2023.

¹⁴² Elliott Crigger and Christopher Khoury, ‘Making Policy on Augmented Intelligence in Health Care’ (2019) 21 *AMA Journal of Ethics* 188.

¹⁴³ Theo Araujo and others, ‘In AI We Trust? Perceptions about Automated Decision-Making by Artificial Intelligence’ (2020) 35 *AI and Society* 611.

¹⁴⁴ Cobbe, Lee and Singh (n 85).

¹⁴⁵ *Ibid.*

a total of 193 countries.¹⁴⁶ The UK's attainment of this leading position indicates that its public bodies rely mainly on programs based on technology or AI in most of their work, especially in DMPs. There are more future initiatives and plans to enhance the manner in which technology is used in order to facilitate the efficient operation of public bodies, including the government's 2022 to 2025 'Roadmap for Digital and Data'.¹⁴⁷

Since using these types of systems in administrative DMP is a key component of the research issue, it is crucial to first understand what these systems are, expounding their definitions, types, designs, and functionalities, in order to help lawyers better comprehend the functions of these systems. References to computer science and AI studies pertinent to this explanation are thus utilised in the explanatory section.

An 'automated decision system' is typically defined as a system that makes decisions based exclusively on computerised systems and algorithms, with no human involvement.¹⁴⁸ Such algorithms employ regulations, regression, predictive analytics, ML, deep learning (DL), and neural nets. Examples include online credit checks used by credit providers to make decisions on whether to issue loans, whereby those excluded by the initial automated decision are automatically prevented from gaining credit at the next stage of human review, which is only applied to those pre-selected by the automated system.¹⁴⁹ Similarly, in a recruiting aptitude exam that integrates pre-programmed strategies and criteria determines whether or not to recruit people.¹⁵⁰ It is also defined more broadly as 'a DM system

¹⁴⁶ The UN, 'E-Government Survey 2020 Digital Government in the Decade of Action for Sustainable Development With Addendum on COVID-19 Response' (2020) available [https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020 UN E-Government Survey \(Full Report\).pdf](https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20(Full%20Report).pdf) accessed on 19 October 2023.

¹⁴⁷ Central Digital & Data Office CDDO, 'Transforming for a Digital Future: 2022 to 2025 Roadmap for Digital and Data' (2022) *GOV.UK*.

¹⁴⁸ ICO, 'What Is Automated Individual Decision-Making and Profiling? | ICO' <<https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/automated-decision-making-and-profiling/what-is-automated-individual-decision-making-and-profiling/#id2>> accessed 15 March 2022.

¹⁴⁹ William RM Long, Francesca Blythe and Denise Kara, 'United Kingdom' in Alan Charles Raul and others (eds), *The Privacy, Data Protection and Cybersecurity Law Review - The Law Reviews* (Sixth, The Law Reviews 2021) 373.

¹⁵⁰ *Ibid.*

which operates entirely without or with reduced human input, reaching decisions instead through the use of mathematical instruction sequences called algorithms'.¹⁵¹

Before going into the types of ADM, it is important to clarify the most common fields that develop the algorithms used in the work of the machines.

2.7.1 AI, ML, and DL

AI refers to a machine mimicking human brain functions like learning and problem-solving, which were traditionally assumed to be unique to human brains.¹⁵² The field of AI draws on a variety of disciplines, including computer science, mathematics, psychology, linguistics, philosophy, neuroscience, and artificial psychology. In most cases, AI relies on ML algorithms to transform data into actionable predictions by digitisation, a process of converting data into a digital format that can be processed by tools that enable computers to automate decisions and make predictions based on data.¹⁵³

ML is a subfield of AI (Figure 2.1) that is 'a set of methods for getting computers to recognise patterns in data and use these patterns to make future predictions'.¹⁵⁴ According to Arthur Samuel, who pioneered the concept in 1959, ML gives 'computers the ability to learn without being explicitly programmed' (i.e., it enables computers to 'learn' autonomously, rather than passively executing pre-programmed commands from a human controller). ML emerged from the study of pattern recognition and computational learning theory in AI.¹⁵⁵ The study and development of algorithms that can learn from data and make predictions are explored in ML by making data-driven predictions or decisions and creating a model from representative inputs of the data that will be used in the system.¹⁵⁶ ML

¹⁵¹ Abe Chauhan (n 7), 285

¹⁵² Pariwat Ongsulee, 'Artificial Intelligence, Machine Learning and Deep Learning' (2018) IEEE Xplore 1.

¹⁵³ Amy Paul, Craig Jolley and Aubra Anthony, 'Reflecting the Past, Shaping the Future: Making AI Work for International Development' (2018) Digital Development available [Reflecting the Past, Shaping the Future: Making AI Work for International Development - Digital Development Site](#) accessed on 5 October 2025.

¹⁵⁴ Ibid.

¹⁵⁵ Cited in Ongsulee (n 173).

¹⁵⁶ Ibid.

algorithms seem to overcome the limitations of strictly static programmes' instructions that are executed in normal computer programmes.

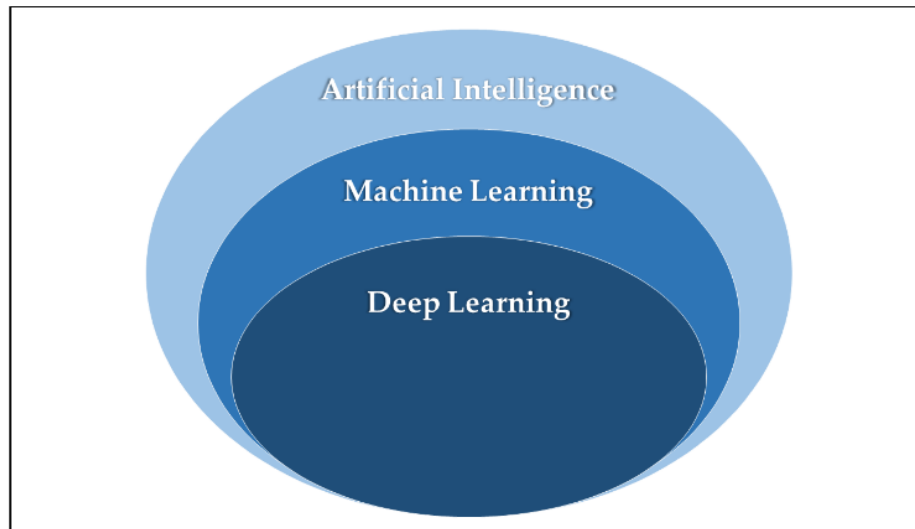


Figure 2.1: The relationship between AI, ML, and DL.¹⁵⁷

DL refers to ML algorithms that contain more than one hidden layer, and the study of artificial neural networks (ANNs), which are also known as deep structured learning, deep ML, or hierarchical learning. DL is a subset of the larger field of ML that focuses on learning data representations that relate to various levels of abstraction; the levels are arranged in a hierarchy of concepts. For the purpose of extracting features of the result, such as a face image or voice, these deep nets are created by a cascade of numerous layers of nonlinear processing units (Figure 2.2). A hierarchical representation is created by deriving higher-level features from lower-level features, whereby the output from the previous (lower) layer serves as the input for subsequent layers. Two sets of neurons could exist in a straightforward scenario: one set would receive input signals, and the other would send output signals. When an input is received, the input layer modifies it before passing it on to the following layer. There are numerous layers between the input and the output in a deep network, which allows

¹⁵⁷ Mohammad Moshawrab and others, 'Smart Wearables for the Detection of Occupational Physical Fatigue: A Literature Review' (2022) 22 Sensors 7472.

the algorithm to use multiple processing layers made up of numerous linear and non-linear transformations.

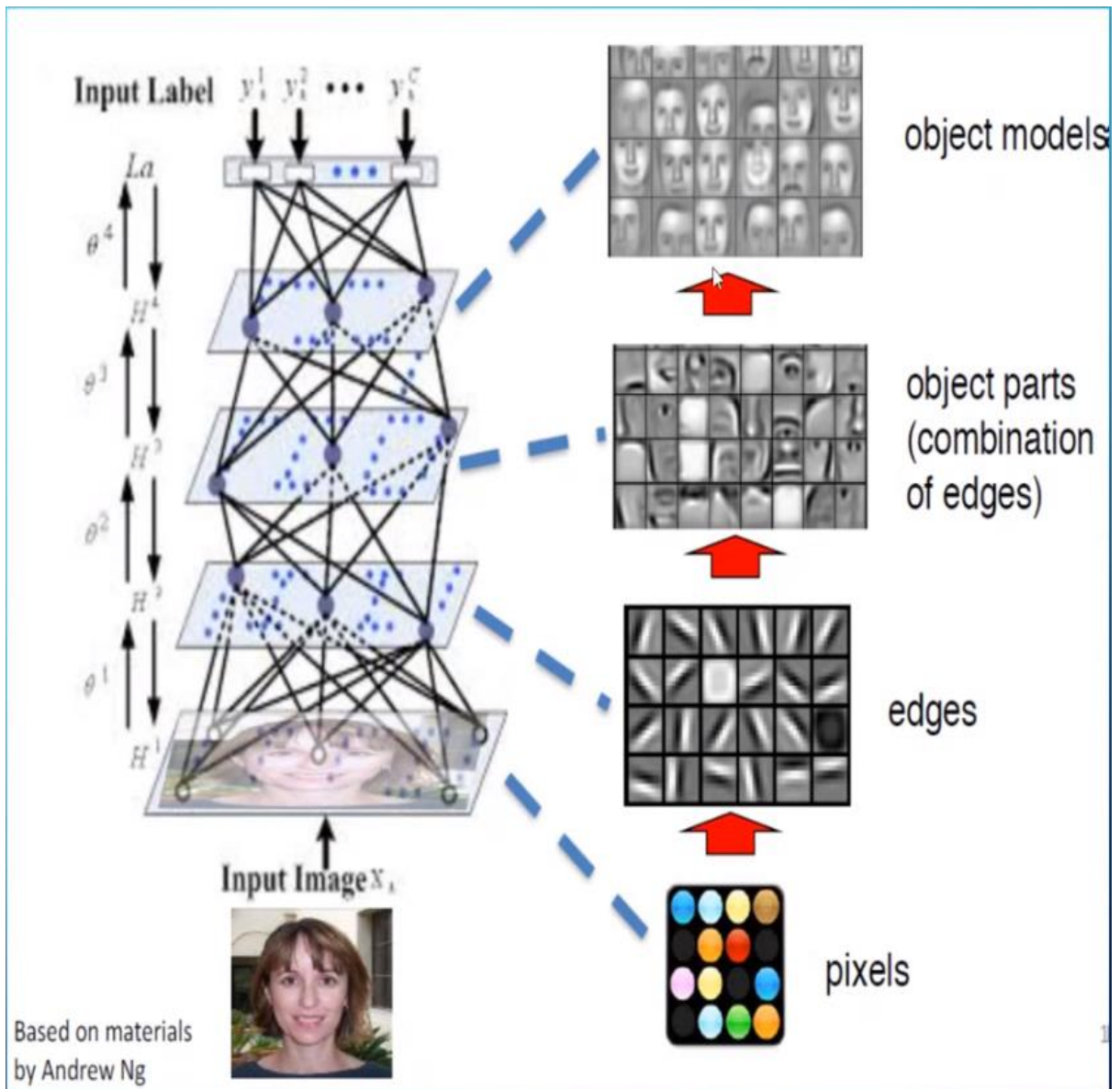


Figure 2.2: Hierarchical layers of the facial recognition algorithm

2.7.2 Overview of Types of ADM Systems

ADM systems seek to replace the decisions that the exclusively human determination of a decision using automated tools and data. In this sense, a computer can be considered a brain, which functions by analysing data to form opinions/ decisions. These technologies are complex, and there is a need to understand when and how to use them appropriately, which needs understanding how they offer a

decision for a given scenario (e.g., case), and how one or more types of system algorithms can be used to effectively improve public services. For lawyers and non-experts, the following broad explanations of the most prominent types of systems used in the process of ADM help to conceptualise their nature and functions. In general, AI is used in building and designing ADM systems, and both ML and 'DL' come under the field of AI.

Under these three technical fields, AI, ML and DL, the systems used in government DM can be classified into several categories, as discussed in the following sections. There are important distinctions between ADM systems based on their purpose and the aims of designing them. The most common systems are supervised and unsupervised types, whose categorisation depends on the type of algorithms and data used in system design and operation. There are also ADM systems, which have been classified according to their purpose into 'automated assisted' and 'solely automated' systems. Others also may classify the systems according to their purpose and work into 'automated' and 'augmented' systems.

2.7.3 Supervised vs. Unsupervised Systems

The pertinent differences between supervised and unsupervised systems relate to the ways in which humans perceive and understand things. For example, what might objectively be regarded as abstract sound waves or photons reflected on the retina might be perceived by a human as a daughter's voice, or a mother's face.¹⁵⁸ In other words, despite the absence of formal names for them, humans still perceive and recognise differences and similarities between what they receive and perceive.¹⁵⁹ For example, Paul Ongsulee noted that someone might observe two faces and conclude that they are a mother and daughter, without knowing their names or anything else about them. Another example would be hearing two different voices, and the listener knowing that the speakers came from the same locale or background by their language and accent. Similarly, algorithms can be trained to name

¹⁵⁸ Ongsulee (n 173).

¹⁵⁹ Ibid.

things through supervised learning and to cluster things through unsupervised learning.¹⁶⁰ The difference between supervised and unsupervised learning is whether a labelled *a priori* training set exists, whereby the algorithm can be trained to recognise indicative patterns, or whether it reactively ‘learns’ to identify such patterns itself, as explained below.

2.7.3.1 Supervised

Supervised systems train the model on known input and output data in order to predict future outputs.¹⁶¹ Each example of the input data is required to produce a correctly labelled output. The system thus takes both sets of data (input and corresponding output data) and trains a model to map inputs to outputs, so it can predict the response to any new set of input data.¹⁶² Supervised systems can take the form of either classification or regression techniques (Figure 2.3), as described below.¹⁶³

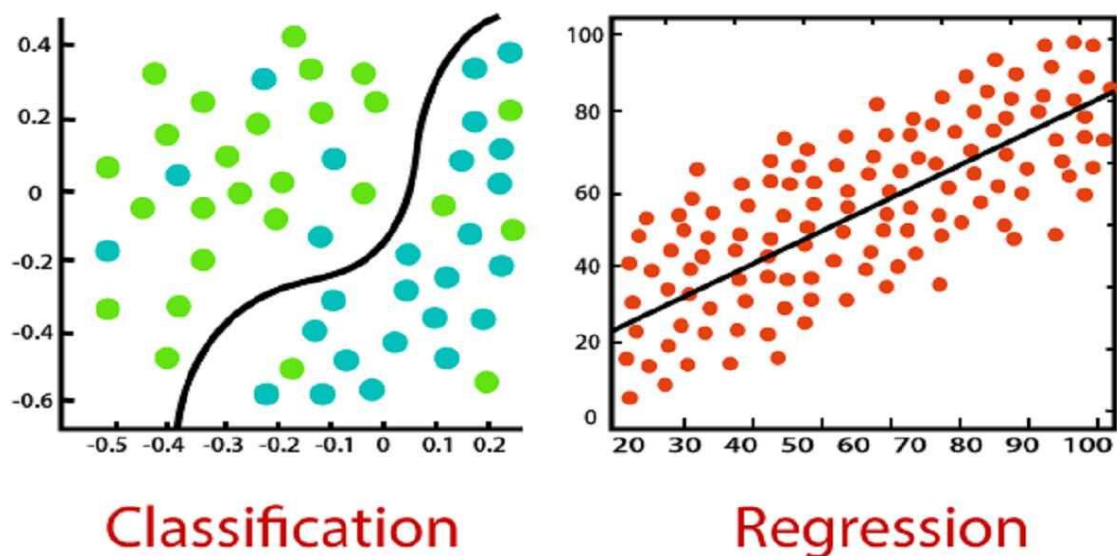


Figure 2.3: Data analysis in classification and regression models

¹⁶⁰ Ibid.

¹⁶¹ Stuart Russell and Peter Norvig, *AI a Modern Approach* (3rd edn, ProQuest Ebook Central 2005) 690.

¹⁶² Ibid. 695.

¹⁶³ Ibid. 696.

Classification techniques separate outputs into different groups, having similar features and data.¹⁶⁴

As shown in Figure 2.3 (left), input data in the classification model is in green or blue groups, based on the similarity in features. For example, the system might classify students based on their results into distinction or merit (where distinction = green, and merit = blue).

Regression techniques predict continuous models, like any application where the output prediction can take any value in a certain range.¹⁶⁵ For example, when choosing the best candidates for a job, their data will be closer to the line in Figure 2.3 (right), and the exact decision will appear placed on the line. If making a judgment for a case, data from similar cases will appear closer to the line, to predict the best relevant judgment for the present case.

Most DM systems used in government follow the supervised model approach, whereby the decision is based on similarity to previous cases.¹⁶⁶ It should be noted that classifications of this type typically involve binary decisions (e.g., the decision that a person is or is not entitled to a certain benefit).

2.7.3.2 Unsupervised

Unsupervised systems find patterns in hidden input data and draw inferences from data sets that do not have labelled responses associated with the input data.¹⁶⁷ The clustering technique is the most common unsupervised learning technique, which puts data into different groups based on shared characteristics (Figure 2.4). Clustering is used to find hidden groupings in applications such as gene sequence analysis, market research, and object recognition, among many others. It separates data into groups based on shared characteristics.¹⁶⁸

¹⁶⁴ Mohammadreza Iman, Hamid R Arabnia and Robert Maribe Branchinst, 'Pathways to Artificial General Intelligence: A Brief Overview of Developments and Ethical Issues via Artificial Intelligence, Machine Learning, Deep Learning, and Data Science' (2021) *Advances in Artificial Intelligence and Applied Cognitive Computing* 73-87.

¹⁶⁵ *Ibid.*

¹⁶⁶ Reuben Binns, 'Algorithmic Decision-Making: A Guide For Lawyers' (2020) 25 *Judicial Review* 2.

¹⁶⁷ Susmita Ray, 'A Quick Review of Machine Learning Algorithms' [2019] *IEEE Xplore* 35.

¹⁶⁸ *Ibid.*

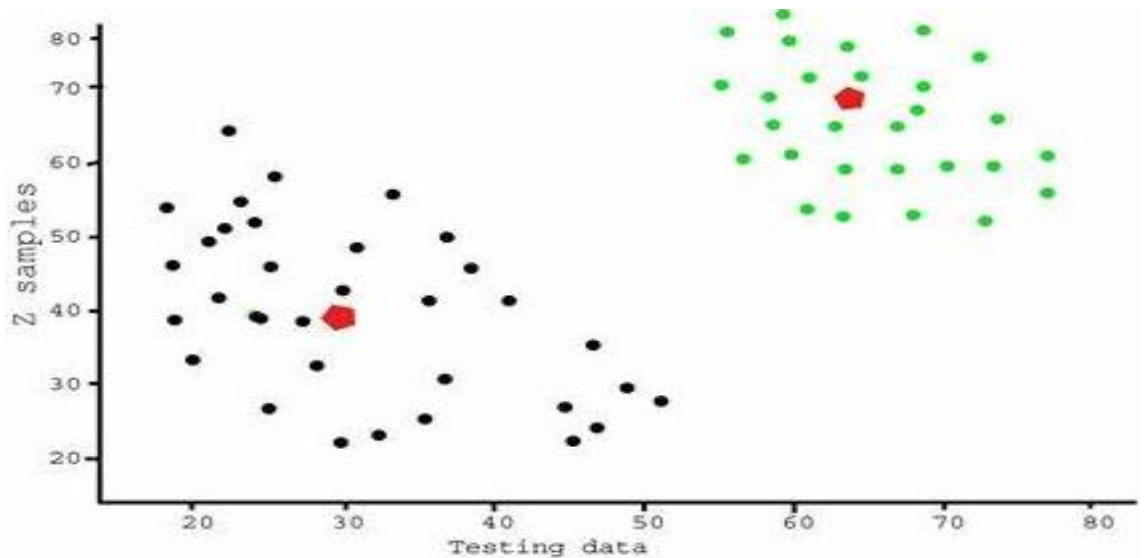


Figure 2.4: Data analysis in an unsupervised system

2.7.4 Solely Automated vs. Automated Assisted Systems

Both solely automated decisions (involving no human intervention) and automated assisted DM (with human intervention) are two concepts related to the use of AI systems in DMPs.

2.7.4.1 Solely ADM

Solely ADM refers to a process where decisions are made entirely by an AI system without human intervention or involvement (in practice, it should be noted that this typically involves some degree of minimal, negligible human operation, including human acknowledgement and deployment of system outputs). These systems use algorithms and ML techniques to analyse data and make decisions based on predefined rules or patterns through statistical analysis of Big Data.¹⁶⁹ The decisions are made automatically and, when ADM is used solely, are not influenced by human judgment or input. Thus, ADM is suitable and often used in situations where there is a large volume of data to analyse, and the decisions need to be made quickly and efficiently.¹⁷⁰ It is employed in scenarios that are repetitive and routine, such as online loan decisions, credit scoring, automated fraud detection, or online content

¹⁶⁹ Gianclaudio Malgieri and Giovanni Comandé, 'Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation' (2017) 7 International Data Privacy Law 243.

¹⁷⁰ Ibid.

moderation.¹⁷¹ Based on GDPR Article 22, there are legal requirements for the forms of this type of system, including that:

1. The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.

It should be noted that this provision may be waived if required or authorised by domestic law, based on a consent from the data subject, or if it is necessary for a contract between the controller and the data subject.¹⁷² Furthermore, this article has been criticised on different bases. It has been argued that the rights provided, such as the right not to be subject to solely automated decisions, are ambiguous.¹⁷³ This is particularly relevant as the data subjects (i.e., people) are not aware of how an automated decision has been made (with or without human intervention). Indeed, it is also unclear whether there is an active option for the data subject to stop this processing, or to give meaningful consent. This opaque process of issuing such decisions makes reviewing or redressing them in the courts complex, for both the data subjects themselves and for judges.

Accountability for such decisions is made much more challenging by the lack of transparency regarding the use of sensitive data. The way in which important decisions are made becomes 'unseen' in these contexts, with the possibility of various forms of discrimination and injustice. Consequently, it is of utmost importance to study the impact of this technology on the DMP.

2.7.4.2 Automated assisted decision-making

Automated assisted DM, on the other hand, involves the collaboration between AI systems and human decision-makers. Such systems are referred to in the literature as 'Intelligent Decision Support

¹⁷¹ Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) 39 *Legal Studies* 636.

¹⁷² UK GDPR **Chapter 3** - Article 22.

¹⁷³ Malgieri and Comandé (n 190).

Systems'. In this process, AI systems are used to assist humans by, for instance, assisting the decision maker in interpreting results from the decision model in DM, by providing them with insights, recommendations, or predictions based on data analysis or finding and choosing pertinent input, choosing appropriate data, resolving a decision model under a set of conditions, displaying results to the decision maker.¹⁷⁴ The following example is illustrative of the deployment of such systems:

An employee is issued with a warning about late attendance. The warning was issued because the employer's automated clock-in system highlighted that the employee had been late on a number of occasions. The actual decision to issue a warning was then taken by the employer's manager after being informed by the automated system.¹⁷⁵

In other words, in this type of system, the final decision is made by a human, but the AI-assisted system provides relevant information, identifying patterns or anomalies, and suggesting potential options that assist the execution of the decision by a human administrator.¹⁷⁶ The human decision-maker can take these inputs into consideration while making the final judgment or decision. Automated assisted DM is commonly employed in various domains, such as healthcare, finance, and customer service.¹⁷⁷ For instance, doctors may use AI systems to assist in diagnosing medical conditions by analysing medical images or patient data, augmenting their individual professional role and experience with the collective experience of many other cases, thereby potentially reducing errors. The benefit of automated assisted DM lies in combining the strengths of both humans and AI systems. This collaborative approach aims to enhance DM accuracy, efficiency, and overall outcomes.

¹⁷⁴ Cobbe (n 192).

¹⁷⁵ Information Commissioner's Office (ICO), 'What Does the UK GDPR Say about Automated Decision-Making and Profiling? | ICO' <<https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/automated-decision-making-and-profiling/what-does-the-uk-gdpr-say-about-automated-decision-making-and-profiling/>> accessed 29 April 2022.

¹⁷⁶ Gloria Phillips-Wren and Lakhmi Jain, 'Artificial Intelligence for Decision-making' (2006) 4252 LNAI-II Lecture Notes in Computer Science 531.

¹⁷⁷ Ibid.

2.7.5 Automation vs. Augmentation

Automation and augmentation are two different approaches to the integration of AI systems into various tasks and processes. Michael Veale and Irina Brass described how new ADM systems are built primarily using ML techniques, designed to serve as decision support or to make direct automatic decisions.¹⁷⁸ They described ‘automated assisted’ and ‘solely automated’ systems as ‘augmented’ and ‘automated’ systems.¹⁷⁹ Automation here means that ML is used to enable the automation of tasks which have complicated elements, but a straightforward and relatively objective outcome. They also believe that, in addition to reducing the financial and time costs of DM in augmentation systems, ML can actively support and improve the process.¹⁸⁰

2.7.5.1 Automation

Automation involves the complete or partial replacement of human labour with AI systems or machines. It aims to streamline and optimise processes by eliminating or reducing the need for human intervention. In automation, AI systems take over repetitive or routine tasks through computation, performing them faster and with potentially higher accuracy than humans.¹⁸¹ Automation is commonly used in manufacturing industries, logistics, government instrumentalities and operations, communication technologies in the public sector and administrative tasks to improve efficiency, reduce costs, and increase productivity.¹⁸² For example, improved tools, such as for translation, image or handwriting recognition, and robotic process automation, can automate data entry and facilitate personalised public service delivery.

However, studies dating back to the 1990s concerning AI and law have demonstrated that the use of automation in the DMP in public services may not be effective, because some decisions require a

¹⁷⁸ Michael Veale and Irina Brass, ‘Administration by Algorithm?’ in Karen Yeung and Martin Lodge (eds), *Algorithmic Regulation* (Oxford University Press 2019) 121-149.

¹⁷⁹ *Ibid.* 136.

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.* 137.

¹⁸² *Ibid.*

certain degree of problem-solving that cannot be fully automated.¹⁸³ The DMP in legal contexts has long been a grey area, and it is hard to justify the practical advantages of automation in highly serious legal and governmental decisions. For example, the links between some terms in the data being processed may be inherently vague, non-describable, or non-repeatable. On the other hand, others such as Martinho-Truswell have argued that it is better to benefit from the help of statistical models such as ML systems in tasks which support decision makers and advise them.¹⁸⁴ Such types of ADM are known as augmentation systems.

2.7.5.2 Augmentation

In contrast to automation, augmentation is used as a tool to support and empower humans in their tasks, rather than replacing them. The goal is to focus on improving human productivity, decision quality, and creativity by using AI as an assistant or advisor. The advantage of augmentation is that it combines the strengths of both humans and AI systems, leveraging AI's computational power and data analysis capabilities while harnessing human expertise, contextual understanding, and ethical judgments. The designers of augmented systems use data that records human performance, tasks, and experiences to improve the outcomes and job satisfaction.¹⁸⁵

2.7.6 Summary

In summary, automation focuses on replacing human labour with AI systems, while augmentation emphasises the collaboration and enhancement of human capabilities through the use of AI tools and technologies. Both approaches have their benefits and challenges, and their suitability depends on the specific tasks, domains, and desired outcomes. Both of them have been criticised by lawyers, sociologists of data, and computer scientists in terms of discrimination, power, and accountability. Karen Yang has demonstrated criticisms and problems about the deployment of automation and

¹⁸³ Ibid.

¹⁸⁴ Emma Martinho-Truswell, 'How AI Could Help the Public Sector' (*Harvard Business Review*, 2018) <<https://hbr.org/2018/01/how-ai-could-help-the-public-sector>> accessed 6 August 2023.

¹⁸⁵ Veale and Brass (n 1).

augmentation in the public sector and administrative practices.¹⁸⁶ Firstly, there are concerns that mistakes could arise in the DMP and the inability of machines to take responsibility. Secondly, automated systems have involved concerns about their opacity, reflecting what is known as ‘black boxes’ in the algorithmic field. Thirdly, biased and discriminatory outcomes having direct and major impacts on individuals can result from such systems if the training data and/ or the data fed into the system are biased.¹⁸⁷

2.8 Current Examples of UK Government ADM Systems

The various objectives of using ADM in the government have been identified by Tomlinson. Firstly, automation leads to significant cost savings by minimising the resources needed for manual data handling and processing.¹⁸⁸ Secondly, ADM systems are convenient as they enable users to interact with government services more easily, with features like automated eligibility checks, which reduce the need for waiting for a human to accept or reject the applications.¹⁸⁹ Finally, security is a key objective as digital systems in general and (ADM in particular) can offer better protection against loss, theft, and fraud compared to physical documentation, while also providing more robust data integrity and consistency.

In the UK, AI-based ADM systems are being implemented to make crucial decisions in numerous governmental areas. Prominent examples include the automated taxation system, the UK border control systems, the Harm Assessment Risk Tool used by police, the healthcare diagnostic system, and the Settled Status Scheme, among others.

Whilst this research aims to explore ADM’s issues that affect the administrative justice process, it is essential to first understand how the technologies in these systems work and explain their designs,

¹⁸⁶ Generally, Yeung (n 3).

¹⁸⁷ Ibid.

¹⁸⁸ Tomlinson, Maxwell and Welsh (n 8).

¹⁸⁹ Ibid.

aims, purposes and results. Providing a comprehensive explanation of ADM systems will pave the way to highlight the central issues affecting the fundamental standards of administrative justice that this research aims to address. A significant explanation in this section uses the database of Tracking Automated Government (TAG) Register project conducted by the Public Law Project (PLP), which monitors and registers any automated systems used by the UK government.¹⁹⁰

2.9 The Tracking Automated Government (TAG) Register Project

The PLP TAG Register is a database recording 55 automated tools so far that can issue automated decisions and compares the level of transparency of each tool.¹⁹¹ The TAG Register can show detailed information about ADM systems used in various public bodies such as the Home Office, Ministry of Justice, Ministry of Defence, the Metropolitan Police and the Department of Work and Pensions.¹⁹² It is useful for people affected by decisions, lawyers, journalists and researchers to see what type of tool they are using, investigate the impacts of systems, how they work or what kind of risk they may pose.¹⁹³ They can search by public body to know what kind of systems it uses, the area of policy, and what cases are brought in relation to its systems.¹⁹⁴ Any department name, word or tool that appears in the database can be found using the ‘search box at the top right of the Register’.¹⁹⁵ Ariane Adam, the Legal Director of the PLP, said

The register is open access so that anyone can see whether decisions about them are made by a robot instead of a human, and if they might be discriminatory or unlawful...

¹⁹⁰ Public Law Project ‘Tracking Automated Government “TAG” Register’ (*Public Law Project*, 2023) <<https://trackautomatedgovernment.shinyapps.io/register/>> accessed 29 January 2024.

¹⁹¹ *Ibid.*

¹⁹² *Ibid.*

¹⁹³ Public Law Project ‘Tracking Automated Government “TAG” Register’ (n 212).

¹⁹⁴ *Ibid.*

¹⁹⁵ Public Law Project ‘Tracking Automated Government “TAG” Register’ (n 212).

The TAG register flags where there are risks of unlawfulness and, by knowing about that, individuals can hold the state to account when their rights are affected...

The Government needs to be forthright about how and where ADMs are in use, but it has chosen secrecy by default. That is why we need the TAG register.¹⁹⁶

As public services increasingly rely on complex data processing and ML algorithms to make critical decisions, there is a growing concern about the transparency, accountability, and fairness of these systems. The TAG Register aimed to evaluate the level of transparency of these systems in order to ensure that they adhere to legal standards and principles of public law. However, 83 % of these systems were discovered or better understood as a result of Freedom of Information requests by PLP. This may indicate that understanding how ADM systems work is still difficult, especially for individuals and non-experts.

Moreover, the PLP involves extensive legal research which collaborates with legal experts, technologists, and civil society organisations to analyse the compliance of automated systems with existing legal frameworks, such as anti-discrimination laws, data protection regulations, and administrative law principles.¹⁹⁷ One of the primary objectives of the TAG Register is to create a comprehensive, publicly accessible database that provides essential information about each automated system. This chapter can benefit from the information provided by TAG register to understand the different types of ADM used in the UK government. It explains systems registered in TAG, including its purpose, the data it processes and the DM criteria it employs, as an essential step before examining the ability of AJs to review and evaluate this type of decision (as explored in the coming chapters). For the purposes of this research, it includes, but is not limited to, five types of ADM

¹⁹⁶ Ibid.

¹⁹⁷ Ibid.

systems that have been chosen as case studies of tools that can issue administrative decisions as represented below:

1. Atlas (used by Immigration Enforcement and Border Force).
2. Border Risk and Targeting Capability (BRTC).
3. EU Settlement Scheme (EUSS).
4. The AVR system used by the Educational Testing Service (ETS).
5. Universal Credit (UC), used by the Department of Work and Pensions (DWP).

The rationale of presenting these systems is to demonstrate the need to understand how ADM systems function. Furthermore, this may shed light on how they impact individuals. More specifically, those who may be disproportionately affected. Together, these five systems cover a wide range of public administration areas, including border control, immigration status, language proficiency, and welfare benefits. This diversity ensures a comprehensive analysis of ADM systems' applications and challenges across different contexts.

In selecting these five examples from the 55 registered in TAG, specific criteria were considered to ensure a comprehensive and insightful analysis. Firstly, they were chosen as examples of systems that can make decisions for individuals on behalf of the government and issue administrative decisions subject to review by the AJs.

Secondly, each selected system has significant real-world implications affecting large populations and critical public services. This makes them particularly ideal for studying the intersection of technology, public policy, and administrative justice. Selected systems, whether they have produced decisions that have led to commonly debated issues, which have either undergone judicial review or have been prominently reported in the news or on social media. For instance, EUSS, UC and AVR systems used by ETS have made decisions affecting people's rights, leading to ongoing judicial reviews. Additionally, some of these systems have encountered technical issues that significantly impact public services,

where operations were stopped at some of the UK airports due to breakdowns in border control cameras, as will be detailed in the next chapter.

Finally, these systems encapsulate a variety of algorithmic types, providing diverse examples that align with the types of systems explained in the previous chapter. By showcasing different algorithmic approaches, the selected examples illustrate the scope of ADM systems and their operations, enhancing the understanding of their mechanisms.

The remaining 50 systems are mostly used by the government in DMP. For example, (NeoFace Live Facial Recognition) to scan the faces in public spaces to alert the police of possible matches, (Sham marriage triage tool) to investigate and identify sham marriage activity and other systems listed in TAG used by various public bodies. However, they will not be discussed here, as this chapter focuses on presenting case studies as examples of the most well-known systems. Additionally, some systems employ similar algorithms and operations to those used by the selected systems, and explaining them would be beyond the scope of this chapter (due to limited impacts on individual cases) or would not be reported as controversial. Therefore, this chapter concentrates on the five systems attracting significant attention or debate in the field, to explain various algorithms involved.

Despite the great role played by these systems in developing and accelerating administrative DMP, they are ambiguous in aspects of their functions and outcomes. Additionally, they raise some challenges to principles of administrative law in terms of, for example, accountability, transparency, and the right to privacy, as explained in Chapters 5 and 6. Therefore, by examining these systems, the research provides a holistic view of how ADM systems operate, the common challenges they face, and the role of AJs in reviewing and addressing relevant grievances. This approach develops the understanding of the systems concerned in this research and therefore understands ADM's impact on public administration and the effectiveness of judicial oversight.

2.10 UK Automated Border Control (ABC) Systems

2.10.1 Overview

The UK ABC systems streamline the entry process of UK citizens, permanent residents, visa holders, and other categories of passengers. ABC systems are implemented at e-gates, which are border control systems and automated self-service barriers that use passport data stored in the form of a chip.¹⁹⁸ Passport biometric data (such as name, sex, date of birth, passport number, nationality, the country of origin of the passport, and the user's photo) is identified while entering the e-gates and passing data through a system which can verify the passport holder's identity to enhance security and streamline immigration processes. The automated system of immigration is operated by the national Border Force, located at immigration checkpoints in international railway terminals abroad and arrival halls in airports. There are around 270 e-gates distributed in 15 rail ports as well as airports.

The UK has implemented various automated systems for border control, which can identify the passengers' identities. Systems of ABC have used technologies such as 'e-Passport Gates' or 'SmartGates', the Iris Recognition Immigration System (IRIS) and biometric exit checks.¹⁹⁹ The following sections study how the ABC systems work in general and then explain specifically the purposes of some examples of ABC systems. The TAG project has provided examples of the ABC systems used on the borders, explaining how they work and the purposes of using them on the borders, for example, (Atlas) by Immigration Enforcement and Border Force and Border Risk and (BRTC).

While these ABC systems offer significant benefits in terms of operational efficiency and security, they also introduce potential issues such as errors, a lack of transparency, and challenges in ensuring fairness. For instance, discrepancies in biometric data or technical flaws can lead to false identifications and wrongful detentions. Immigration tribunals and courts are essential in reviewing

¹⁹⁸ Gemma Galdon Clavell, 'Protect Rights at Automated Borders' (2017), 543 *Nature* 7643.

¹⁹⁹ *Ibid.*

and addressing challenges that arise due to these errors to ensure that the decisions comply with legal standards and uphold individual rights.

2.10.2 ABC Systems Function

With the increasing implementation of Automated Border Control (ABC) systems at UK borders, it is essential to understand how these systems function, particularly in the context of administrative DMP. There are various technologies utilised in the UK's automated border systems in order to detect passengers or people who visit immigration checkpoints at airports or international railway stations. For example, facial recognition, fingerprint scanning, iris recognition and electronic passport control gates automate some immigration and customs processes at borders. ANN-based **face-recognition algorithms** are the most popular and successful method of image recognition, and an underlying component of any facial detection and recognition system or software.²⁰⁰ Facial recognition algorithms are based on mathematical calculations, whereby neural networks perform large numbers of mathematical operations simultaneously.²⁰¹

To further clarify how ABC systems work, the **IRIS** system initiated by the UK Home Office is an instructive example. Its objective was to offer swift automated clearance at UK immigration for specific low-risk frequent travellers who had pre-enrolled in the system using iris biometrics.²⁰² The process involved comparing real-time iris images, obtained by the system, with stored iris images in the database.²⁰³ However, the system was stopped in 2013, and preference was given to the utilisation of e-Passport gates.²⁰⁴

²⁰⁰ Ameera A Al-Blushi, 'Face Recognition Based on Artificial Neural Network: A Review' (2021) 1 Artificial Intelligence & Robotics Development Journal 116.

²⁰¹ Ibid.

²⁰² Dmitry O Gorodnichy, Svetlana Yanushkevich and Vlad P Shmerko, 'Automated Border Control: Problem Formalization' (2015) 2015-Janua IEEE Workshop on Computational Intelligence in Biometrics and Identity Management, CIBIM 118.

²⁰³ Ibid.

²⁰⁴ Ibid.

In the **e-Passport** system, e-gates comprise the main element in the complete automated system of immigration that ultimately checks the eyes of passengers to verify their identities. The gates at the airport include a camera, which cross-checks the data stored in the passport chip and the travellers' identity. The scanning is able to use data from various databases in order to determine whether the traveller is authentic or in some cases is a security risk to other people.²⁰⁵ The algorithm of sequence or well-defined instructions analyses as well as verifies the traveller efficiently using a contactless scanner; this machine scans the data and reads the contactless chip in the passport.

Moreover, the algorithms in the **e-Passport** perform three main tasks: detect faces in an image, video, or real-time stream; calculate a mathematical model of the face; and compare models to training sets or databases to identify or verify a person. AI facial recognition technology in the system is primarily used to detect passports and identify passengers, and cross-check their identity with the existing data along with passports.²⁰⁶ This system acts as a self-service barrier in airports and railway stations where e-gates are installed.

In the next phase or stage, the face recognition or iris recognition systems can identify the traveller, then the border control system conducts various operations such as checking security features, optical data recognition, and checking authenticity.²⁰⁷ In a similar context, by validating the documents related to the traveller and the biometric scanning is accomplished; in the last step, the automated immigration system analyses the blacklist in order to confirm that the traveller is not on the list of restricted individuals and travellers.²⁰⁸

Furthermore, due to using facial recognition algorithms in ABC systems to compare travellers' faces with the photograph recorded on the passport's chip, the performance of the ABC system is affected

²⁰⁵ Debbie Lisle and Mike Bourne, 'The Many Lives of Border Automation: Turbulence, Co-Ordination and Care' (2019) 49 *Social Studies of Science* 682.

²⁰⁶ Clavell (n 220).

²⁰⁷ Maciej Kuziemski and Gianluca Misuraca, 'AI Governance in the Public Sector: Three Tales from the Frontiers of Automated Decision-Making in Democratic Settings' (2020) 44 *Telecommunications Policy* 6.

²⁰⁸ *Ibid.*

by three variables: the quality of the face recognition algorithm used, the quality of the digital image on the passport, and the quality of the live recorded facial image by the gate.²⁰⁹ As a result, some concerns have been raised about the potential errors and a lack of transparency in these systems. For example, one study showed that 5% of passport images have different deficiencies, such as fuzzy images, colour marks, poor contrast, and wrong eye colour due to compression or red eye correction, dust, hairs, cracks, or bad scan lines.²¹⁰

2.10.3 Examples of ABC Systems

The TAG Register project has analysed forms of ADM systems used on the UK borders, such as Atlas and BRTC. Some information provided by the TAG Register explains the purposes and the role of ABC systems. Firstly, Atlas is one of the many systems used by Immigration Enforcement and Border Force services, where data is gathered and stored, or is retrieved from a secure database platform, called the Person Centric Data Platform (PCDP).²¹¹ This is used in border control to facilitate analysing fraud, crime, and illegal migration by passing case information to Immigration Enforcement and Border Force.²¹² The case process entails two distinct stages: an initial referral phase, wherein a request for action is made; and a subsequent action phase, which documents the action taken, including any generated or provided documents uploaded to the system for support.²¹³ The TAG Register reiterates that:

²⁰⁹ Anne-Marie Oostveen and Mario Kaufmann and Erik Krempel and Gunther Grasemann, Automated Border Control: A Comparative Usability Study at Two European Airports (April 17, 2014). *8th International Conference on Interfaces and Human Computer Interaction (IHCI 2014)*, Lisbon, Portugal, July 2014, Available at SSRN: <https://ssrn.com/abstract=2432461> or <http://dx.doi.org/10.2139/ssrn.2432461>

²¹⁰ Ibid.

²¹¹ Data Protection Impact Assessment completed on 12 August 2020 disclosed in response to PLP and Kaelynn Narita's Freedom of Information request. Available at <https://www.whatdotheyknow.com/request/the_use_of_c/response/1940001/attach/3/Redacted%2020200921%20DPIA%20ATLAS%2018082020.PDF.pdf> last access on 28 January 2024.

²¹² Home Office Digital, Data and Technology 'Analysing Data to Identify Risks at the UK Border' (31 January 2022) <<https://hodigital.blog.gov.uk/2022/01/31/analysing-data-to-identify-risks-at-the-uk-border/>> accessed 29 January 2024.

²¹³ Public law Project 'Tracking Automated Government "TAG" Register' (n 212).

Generated documents use policy approved templates that are pre-populated with person and case specific information... A user selects which template to download from a list which will only show relevant templates. A user then has to upload a copy of the template to Atlas.²¹⁴

Secondly, the BRTC system, developed by Home Office Digital Data and Technology, is used for analysing varied data to quickly and efficiently identify and address issues related to fraud, crime, and illegal migration.²¹⁵ It has extensive data linked to law enforcement, international sources, and border-collected data. BRTC works by using data models such as Person, Object, Location, and Event (POLE). This structured approach enables Border Force officers to identify patterns of people which help officers efficiently reveal relationships within datasets, facilitating quick and accurate interventions to combat crime.²¹⁶

Whilst this research is mainly concerned with the problems of using ADM in practice, the UK ABC systems described in this section generally have some fundamental defects that may affect people in terms of opacity, errors, and delays. These issues can lead to legal challenges, requiring AJs to intervene. For example, false refusals to pass the e-gate can occur when the live image, as apparent by the system, and the digital passport image are different, such as when somebody is passing through the gate with a t-shirt having a printed picture of someone else, like an actor or celebrity. The camera may see a face and misinterpret the face on the shirt, and check the passport photograph against the picture on the shirt, not the traveller, resulting in a false detection, whereby the passenger will be stopped.²¹⁷ This error can negatively affect the satisfaction of e-gate users, as they are unable to successfully pass, which leads to a process delay. A detailed discussion about the defects and problems resulting from using ADM systems is presented in Chapter 3.

²¹⁴ Ibid.

²¹⁵ Home Office Digital, Data and Technology 'Analysing Data to Identify Risks at the UK Border' (n 234).

²¹⁶ Ibid.

²¹⁷ Ibid.

2.11 Automated Systems Used in Immigration Processes

The Home Office, the principal authority responsible for immigration in the UK, has implemented various automated systems to support and, in some cases, replace human decision-makers. These systems aim to expedite the DMP, offering cost-effective and efficient alternatives to traditional human-led methods.²¹⁸ According to the PLP's TAG Register, the Home Office employs around 33 automated systems across different policy areas, including immigration, law enforcement, and policing.²¹⁹ Notable examples include the EUSS Streaming system and the Automatic Voice Recognition (AVR) system.

While these automated systems enhance operational efficiency, they also raise critical questions about the transparency, fairness, and accuracy of administrative decisions. This research explores the extent to which these issues can be effectively reviewed and addressed by reviewers. Understanding the systems' functions and potential errors is crucial for assessing how administrative justice can safeguard individual rights and uphold the rule of law in an increasingly automated landscape.

2.11.1 EUSS System

2.11.1.1 Overview

The EU Settlement Scheme (EUSS) is a primary example of an ADM system used by the UK Home Office. This system digitally determines residency status for people living in the UK from the European Economic Area (EEA). Implemented after Brexit, the EUSS aims to regulate the immigration status of EU, EEA, and Swiss nationals living in the UK, allowing eligible foreign nationals to remain in the UK with residency rights. The scheme became effective on June 30, 2021.²²⁰

²¹⁸ Joe Tomlinson and Jack Maxwell, *Experiments in Automating Immigration Systems* (Bristol University Press 2021) 1-5.

²¹⁹ Public Law Project 'Tracking Automated Government "TAG" Register' (n 212).

²²⁰ GOV.UK 'Apply to the EU Settlement Scheme (Settled and Pre-Settled Status): Overview' <<https://www.gov.uk/settled-status-eu-citizens-families>> accessed 5 May 2022.

To be eligible for settled status under the EUSS, individuals must have lived in the UK for a continuous five-year period (known as ‘continuous residency’), and must have started living in the UK before 31 December 2020. Five years of continuous residence signify that an individual has not spent at least six months per year out of the UK, the Channel Islands, or the Isle of Man for five consecutive years.²²¹ During the five-year period, an applicant must ensure they have not been absent from the UK for more than 12 months unless there is an important reason justifying their absence.²²² People meeting these requirements are usually granted ‘Settled Status’, whereas those who have not yet achieved these requirements can apply for ‘Pre-settled Status’. To qualify for pre-settled status, applicants need to show evidence of at least one month’s residence in the UK within the six months preceding their application. This status grants a limited leave to remain in the UK for five years.²²³ After completing the necessary five years of continuous residence while holding pre-settled status, applicants will then be eligible to apply for indefinite leave to remain.²²⁴

The government aims to reach a variety of goals by implementing this system using an automated algorithm. According to the ‘Processing Level Memorandum of Understanding’ between the Home Office and the DWP, these objectives include: ‘reduce the Home Office’s reliance on paper documentation; speed up caseworker processing; reduce fraud and error and enhance the consumer experience’.²²⁵ Additionally, the system fundamentally seeks to facilitate applicants’ reliance on government-held data to automatically confirm their UK residency, reducing their burden of proof. Moreover, there are some other potential benefits of the EUSS, such as cost-saving and quicker

²²¹ Ibid.

²²² Joe Tomlinson, ‘Justice in Automated Administration’ (2020) 40 *Oxford Journal of Legal Studies* 708.

²²³ Ibid.

²²⁴ Ibid.

²²⁵ GOV.UK ‘Process Level Memorandum of Understanding (PMoU) Between the Home Office and Departement for Work and Pensions’ (*Home Office publication*, 2019) <www.gov.uk/government/publications.> accessed 5 May 2022.

process, so the high volume of applicants would be processed faster than traditional paper-based processes.²²⁶

Overall, the purpose of the EUSS is to provide a clear and accessible way for EU, EEA, and Swiss nationals to secure their status in the UK post-Brexit and ensure they have the necessary documentation to prove their rights.²²⁷ Additionally, it aims to streamline the application process and provide a more efficient way for individuals to prove their status.

2.11.1.2 How the EUSS Works

The Home Office application procedure uses two digital platforms: a mobile app and an online form on the UK Government's website. Under the Immigration Rules, applicants must prove their identity, residence, and suitability.²²⁸ After that, automated data processing is employed to analyse data from the Department for Work and Pensions (DWP) and HM Revenue & Customs (HMRC) to verify how long an individual has been in the UK for the necessary five-year continuous period.²²⁹ An algorithm is used in this automated stage of the application process by submitting three areas of data automatically to the DWP and HMRC: the applicant's name, date of birth, and national insurance number.²³⁰ Once received by those two departments, the information is passed to a 'Citizen Matching Layer', which identifies the applicant and examines the appropriate departmental databases for information about the matched applicant.²³¹ The algorithm then looks at 13 different categories: 'State Pension and New State Pension, Housing Benefit, Jobseekers Allowance, Employment Support Allowance, Carers Allowance, Universal Credit, Personal Independent Payment, Disability Living Allowance, Income

²²⁶ Generally see Joe Tomlinson and Jack Maxwell, *Experiments in Automating Immigration Systems* (Bristol University Press 2021).

²²⁷ Ibid.

²²⁸ Tomlinson (n 244).

²²⁹ GOV.UK 'EU Settlement Scheme: UK Tax and Benefits Records Automated Check' <<https://www.gov.uk/guidance/eu-settlement-scheme-uk-tax-and-benefits-records-automated-check>> accessed 5 May 2022.

²³⁰ Joseph Tomlinson, *Quick and Uneasy Justice: An Administrative Justice Analysis of the EU Settlement Scheme* (Public Law Project 2019) 27.

²³¹ Ibid.

Support, Maternity Allowance, Incapacity Benefit, Attendance Allowance, and Severe Disablement Allowance'.²³²

The information is then communicated back to the Home Office and is transferred to its 'business logic'. It is an algorithm that processes the information to determine the length of continuous residence in the UK. In this stage, the algorithm in the streaming tool classifies applications into three groups: a pass ('Settled Statute'), a partial pass ('Pre-settled statute'), or a fail ('Refused').²³³ The standards for classification include conditions for each result. Settled Status (Indefinite Leave to Remain) will be granted to those who have lived in the UK for a continuous 5-year period. This provides the right to stay in the UK indefinitely.²³⁴

Pre-settled Status (Limited Leave to Remain) will be granted to those who do not yet qualify for settled status, usually because they have lived in the UK for less than five continuous years. This provides the right to stay in the UK for a further 5 years, after which they can apply for settled status. If the application does not meet the eligibility or suitability criteria of the scheme, the application will be refused, withdrawn or invalid.²³⁵

Applicants will receive an automatically generated email notification when their status is approved, not as a paper document.²³⁶ Official human involvement then begins at this final level of the automated check. At this stage, individuals who have entered the ADMP for whom the algorithm could not verify their periods of residence can upload documentation, whether online or through the post.²³⁷

²³² GOV.UK 'Process Level Memorandum of Understanding (PMoU) Between the Home Office and Department for Work and Pensions' (n 247).

²³³ Tomlinson (n 84) 27.

²³⁴ GOV.UK 'Apply to the EU Settlement Scheme (Settled and Pre-Settled Status): Overview' (n 242).

²³⁵ GOV.UK 'EU Settlement Scheme Quarterly Statistics, December 2023' last updated on 7 March 2024 <<https://www.gov.uk/government/statistics/eu-settlement-scheme-quarterly-statistics-december-2023>> accessed 12 July 2024.

²³⁶ Joe Tomlinson, Jack Maxwell and Alice Welsh, 'Discrimination in Digital Immigration Status' (2021) 42 Legal Studies 315.

²³⁷ GOV.UK 'EU Settlement Scheme: UK Tax and Benefits Records Automated Check' (n 251).

The lack of documentation – despite being an efficiency objective of the Home Office in its adoption of the system – has been criticised for introducing opacity, due to not publishing data on the process. The wrong result under the EUSS could have an impact on the circumstances under which EU residents and their family members can reside and use services in the UK after Brexit, and may lead to serious problems and grievances.²³⁸ Although the EUSS has become the most obvious and extensive deployment of ADM in the UK, it has already been evidenced that the system has produced administrative problems and grievances. Tomlinson and others have explained some types of grievance that arose or are liable to arise from the EUSS automated system. For example, they mentioned the problems of errors, wrongs or unreasonable decisions that affect applicants, due to the poor quality of the database used to feed the EUSS system. Additionally, there are the problems of unacceptable delay that are created by technical errors, unavailable service (e.g., if the applicant does not use a smartphone), and discriminatory results against some groups (like elders and disabled people).²³⁹

Since this research is mainly concerned with the challenges to review cases resulting from ADM, the problems and grievances that resulted from using the EUSS streaming tool will be explained in detail in Chapter 3.

2.11.2 Automatic Voice Recognition (AVR) System

2.11.2.1 Overview

UK immigration law and the British Nationality and Status of Aliens Act 1914 require that international students or people applying for UK citizenship have to prove that they have knowledge of the English language; consequently, they have to take particular English tests to determine their English level and

²³⁸ Madeleine Sumption, 'Report: Not Settled Yet ? Understanding the EU Settlement Scheme Using the Available Data' (2020), Migration Observatory at university of Oxford, Available: (<https://migrationobservatory.ox.ac.uk/resources/reports/not-settled-yet-understanding-the-eu-settlement-scheme-using-the-available-data/>) accessed on 12 July 2014.

²³⁹ Joe Tomlinson, Jack Maxwell and Alice Welsh, 'Discrimination in Digital Immigration Status' (2021) 42 Legal Studies 315.

to meet the conditions of their visas.²⁴⁰ In this regard, the Home Office adopts AVR technology used by the ETS, a third-party company providing English language tests, to detect any cheating in English language tests. The system uses algorithms to analyse the speech of the test takers to evaluate their language level.

2.11.2.2 How the Home Office's AVR Functions

The AVR system works by recording the test taker's speech and analysing it using algorithms that can evaluate the test-taker's intonation, pronunciation, and fluency, to provide a score. The algorithms can decide in two ways: A-deciding the actual identity of the speaker, or determining if there is one voice for two different identities, and B-recognising the level of their English language. The ETS can then evaluate the English language ability of non-native speakers.

Figure 2.5 shows the process of recognising a voice whereby the AVR system decides upon the speaker ID. In recent research, Tomlinson and Maxwell²⁴¹ explained three stages in the AVR system process:

First, the system starts by analysing an audio input of spoken language and converts the audio into text.²⁴² Second, if there are marked audios, human checkers will review the audios manually. In this stage, the audios will be marked as either 'invalid' (if the checkers agree with the system decision), or 'questionable' (if the checkers do not confirm the system decision). Third, ETS reclassifies the cases after reviewing their results. Under an investigation request from the Home Office about a student visa or citizenship application, the ETS will provide the Home Office with the decisions resulting from the AVR system about their test.²⁴³

²⁴⁰ Maxwell and Tomlinson (n 240).

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Ibid.

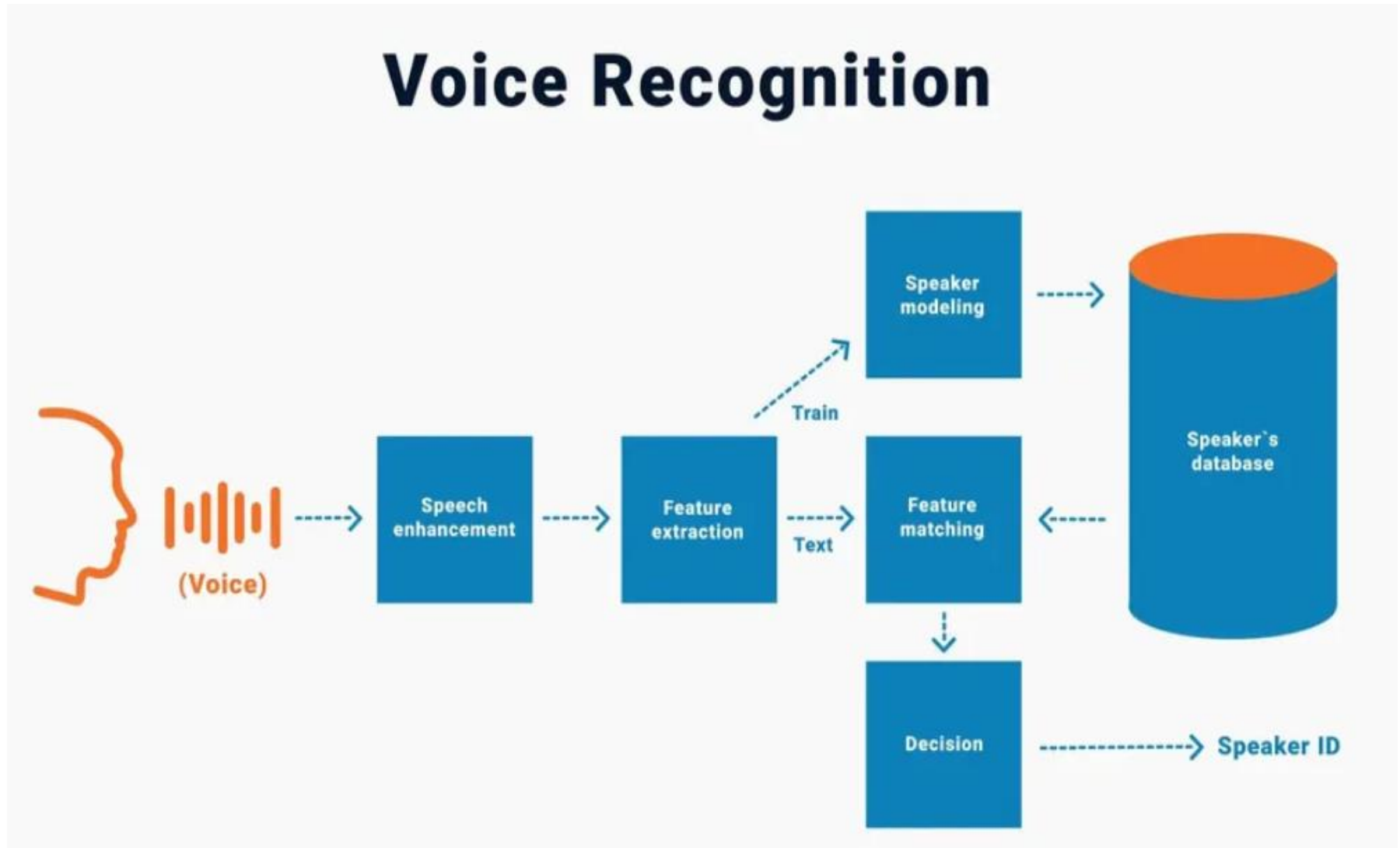


Figure 2.5: Voice recognition technology process

Moreover, the Home Office will take action regarding flagged tests. If the systems mark the test as invalid, the Home Office can cancel visas or reject the applications of the people who applied. The immigration team in the airport then has the power to stop the people at the airport, or may take them into detention in the UK and then deport them out of the country. Such actions have direct negative effects on the people when the system makes errors or mistakes. As a result, a number of cases have been reported to the immigration tribunal and the court to challenge the actions of the Home Office or immigration team based on the system's decisions, such as *Raja*²⁴⁴ case, one of thousands of 'ETS cases' against the AVR in the Home Office (explained in Chapter 3).

2.12 Automated Systems in Universal Credit (UC)

2.12.1 Overview

Universal Credit (UC) is a significant and complex system used by DWP within the UK welfare benefits framework that warrants discussion due to its extensive scale. The UC system is to assist with living costs, and is provided as a monthly payment determined by income, assets, and family situation.²⁴⁵ It transitions core processes from human DM to automated systems, spanning online applications to eligibility determination, entitlement assessments, payment calculations, and fraud detection.²⁴⁶ The term "universal credit system" actually refers to a collection of interconnected technological systems that work together, interacting with both DWP agents and claimants.

Initially rolled out in April 2013, UC was designed to replace six working-age "legacy" benefits with a single system for low-income people and working-age individuals, available whether they are

²⁴⁴ House of Commons Public Accounts Committee, '*Written Evidence Submitted by Raja Noman Hussain (ELT0069)*' (2019) Available [ELT0069 - Evidence on English language tests for overseas students \(parliament.uk\)](https://www.parliament.uk/evidence-on-english-language-tests-for-overseas-students) accessed on 30 Sep. 2025.

²⁴⁵ Jane Millar and Fran Bennett, 'Universal Credit: Assumptions, Contradictions and Virtual Reality' (2017) 16 *Social Policy and Society* 169.

²⁴⁶ Rita Griffiths, 'Universal Credit and Automated Decision-making: A Case of the Digital Tail Wagging the Policy Dog?' (2024) 23 *Social Policy and Society* 1.

employed or unemployed.²⁴⁷ Jane Millar and Fran Bennett have also explained that the six benefits replaced by the UC systems are: ‘Income Based Jobseeker’s Allowance, Housing Benefit, Working Tax Credit, Child Tax Credit, Income Related Employment and Support Allowance and Income Support’.²⁴⁸ However, the DWP employs different types of systems to detect risk or deception in UC, such as ‘people living together, self-employment, universal credit capital, and housing’.²⁴⁹ The full implementation across the UK was completed in December 2018, reaching a peak of six million claimants by March 2021.²⁵⁰ By the end of 2024, the complete migration from legacy benefits to UC is expected to be finalised.²⁵¹

A crucial component of UC is its automated system, which was developed to simplify the entire process from application to assessment, and finally, to the adjustment of payments. The intention behind this system is to make the benefit system more efficient and accessible, and ensure an efficient experience for claimants.²⁵² By digitising the application process, individuals can easily apply online, submit necessary documentation, and actively track the status of their claims through a digital interface.²⁵³ The development of the automated UC system was a collaborative effort between the DWP technology firms and consultants.²⁵⁴ The integration with various government databases, such as those of HMRC (as explained in Section 2.5.2), enables access to crucial data about the claimant’s earnings, employment status, and other relevant factors.²⁵⁵ This reduces the likelihood of fraud and

²⁴⁷ Isaac Thornton and Francesco Iacoella, ‘Conditionality and Contentment: Universal Credit and UK Welfare Benefit Recipients’ Life Satisfaction’ (2022) 53 *Journal of Social Policy* 2, 280-308.

²⁴⁸ Millar and Bennett (n 267).

²⁴⁹ Public Law Project ‘Tracking Automated Government “TAG” Register’ (n 212).

²⁵⁰ Department for Work and Pensions ‘Completing the Move to Universal Credit’ (2022) GOV.UK, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1076130/completing-the-move-to-universal-credit.pdf, accessed on 2 July 2024.

²⁵¹ *Ibid.*

²⁵² Department for Work and Pensions ‘Department for Work and Pensions Annual Report and Accounts 2021-22 for the Year Ended 31 March 2022’ (2022) National Audit Office available at [Department for Work and Pensions Accounts 2021-22 - NAO report](#) accessed on 6 October 2025.

²⁵³ *Ibid.*

²⁵⁴ *Ibid.*

²⁵⁵ Jennifer Raso, ‘Implementing Digitalisation in an Administrative Justice Context’ in Marc Hertogh, Richard Kirkham and Joe Tomlinson (eds), *The Oxford Handbook of Administrative Justice* (Oxford University Press 2021) 521-544.

errors while ensuring payments are accurate and timely. Algorithms within the system handle eligibility assessments and payment calculations, adjusting automatically for changes in income or household composition.²⁵⁶

Furthermore, fraud and error detection in UC involves a multifaceted approach using advanced technologies, automated systems, and comprehensive data analytics.²⁵⁷ For example, DWP employs ML models to predict which UC advance claims are likely to be fraudulent, drawing on information from historical fraud cases.²⁵⁸ When a claim is flagged as high risk, it can result in an immediate suspension, affecting the claimant's income until the case is thoroughly investigated.²⁵⁹ In 2020, due to the health restrictions during the COVID-19 pandemic, the DWP used a verification application programming interface (API) for digital and remote verification that replaced face-to-face verification processes.²⁶⁰ API allows seamless data exchange between different governmental bodies for maintaining any updates in claims data.²⁶¹

2.12.2 How the UC System Functions

Since 2021-2022, the DWP has employed the UC automated systems designed by ML algorithms that aim to enhance the integrity of using the UC systems.²⁶² They can help the DWP in detecting potential fraud activities or errors, determine the level of support and predict if someone needs financial support.²⁶³ The system can integrate data received from other systems, such as systems in HMRC, to detect fraud or errors. For example, the DWP has adopted "transaction risking", a technique widely

²⁵⁶ Department for Work and Pensions 'Department for Work and Pensions Annual Report and Accounts 2021-22 for the Year Ended 31 March 2022' (n 274).

²⁵⁷ Department for Work and Pensions 'Completing the Move to Universal Credit' (n 272).

²⁵⁸ Department for Work and Pensions., 'Department for Work and Pensions Annual Report and Accounts 2021-22 for the Year Ended 31 March 2022' (n 274).

²⁵⁹ Ibid.

²⁶⁰ Jacqui Leggetter, 'How Our Silent "API Army" Has Helped DWP's COVID-19 Response – DWP Digital' (Gov.UK, 2020) <<https://dwpdigital.blog.gov.uk/2020/06/29/how-our-silent-api-army-has-helped-dwps-covid-19-response/>> accessed 6 July 2024.

²⁶¹ Ibid.

²⁶² the Comptroller and Auditor General, 'Report on Accounts - Department for Work & Pensions' (2023) <<https://www.nao.org.uk/wp-content/uploads/2023/07/dwp-report-on-accounts-2022-23.pdf>> accessed 31 January 2024.

²⁶³ Thornton and Iacoella (n 269).

implemented in financial services in HMRC to evaluate the risk in repayment transactions, providing real-time alerts to prevent errors or fraudulent tax refunds.²⁶⁴ For working claimants who pay income tax through HMRC's PAYE system, their monthly UC payments are automatically adjusted using earnings data from HMRC's real-time information (RTI) system.²⁶⁵ This integration may help to ensure that earnings from employment recorded during the claimant's assessment period are accurately reflected in the UC payments.

Technologically, accompanying this automated system is a robust digital platform that allows claimants to manage their claims through an individual online journal and account. Accessible via smartphones, tablets, laptops, or desktop computers, the journal serves as a two-way communication channel between DWP staff and claimants.²⁶⁶ Claimants receive alerts through text messages or emails to check their journal for new messages and tasks posted by DWP staff, which are displayed in a 'to do' list. The journal operates alongside a regime of work conditionality overseen by Jobcentre work coaches. Here, personalised 'claimant commitments' are posted online, specifying the number of hours claimants must work or look for work, with sanctions in place for non-compliance.²⁶⁷ The journal is also essential for reporting changes in circumstances, such as alterations in employment status or household composition, impacting their UC entitlement. Near the payment due date, a statement is issued to the online account detailing the upcoming payment amount, which is subsequently transferred to the claimant's bank account electronically.²⁶⁸

Furthermore, Figure 2.6 summarises the systems' internal work process in identifying requests that are likely to be fraudulent or erroneous through the algorithm and then issuing a decision regarding

²⁶⁴ Jon Thompson and Meg Hillier, 'Fraud and Error Stocktake' (2016) <<https://www.parliament.uk/globalassets/documents/commons-committees/public-accounts/Correspondence/2015-20-Parliament/PAC-Response-final-signed-copy-of-follow-up-letter-to-3rd-party-data.pdf>> accessed 7 July 2024.

²⁶⁵ Griffiths (n 268).

²⁶⁶ Ibid.

²⁶⁷ Ibid.

²⁶⁸ Ibid.

them. The process starts by feeding the algorithm with personal data from historical claims. In this stage, the algorithm is trained to select the behaviours that tend to be fraud or error in the fed data, and it then assigns the claims into 'not containing fraud and error' or 'possibly contains fraud and error'. In the latter case, claims are referred for human review, and the payment should be paused until a review is finished by the Targeted Case Review agents, or by relevant DWP teams, such as the Enhanced Review Team, if the claim has not entered into payment yet. After claims have been checked, human decisions are issued on whether the claim is correct, and payment will then be executed, or the case will be referred for investigation in claims containing fraud or error.²⁶⁹

²⁶⁹ the Comptroller and Auditor General (n 126).

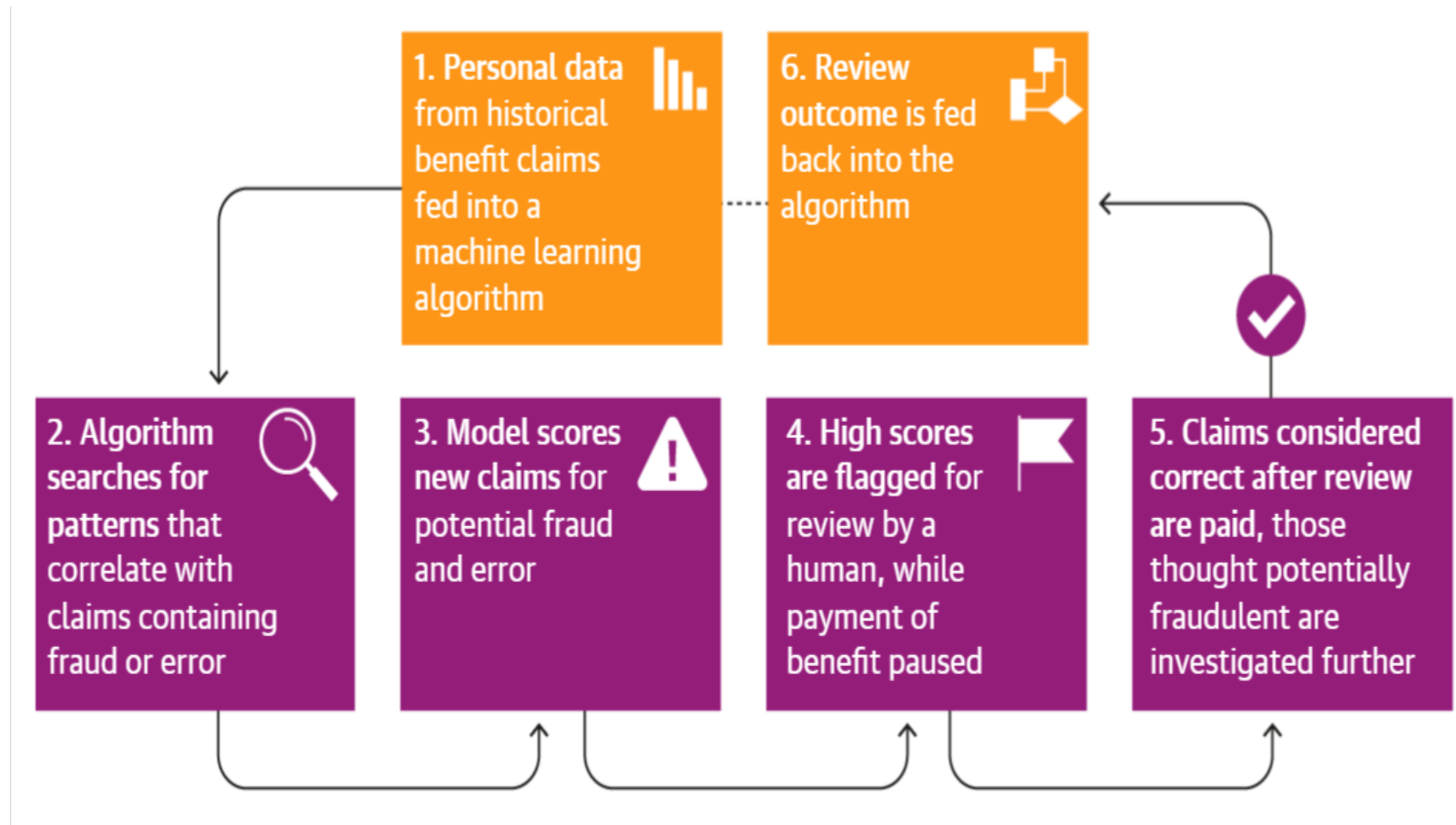


Figure 2.6: How the DWP uses AI to check benefit claims for fraud²⁷⁰

²⁷⁰ Reported by Robert Booth, 'AI Use Widened to Assess Universal Credit Applications and Tackle Fraud' (*The Guardian*, 11 July 2023) <<https://www.theguardian.com/society/2023/jul/11/use-of-artificial-intelligence-widened-to-assess-universal-credit-applications-and-tackle>> accessed 31 January 2024.

However, the report by the Comptroller and Auditor General in 2023 indicated that there is a risk, because the algorithms are biased against some claims from vulnerable people or particular groups due to system design or fed data. It also reported that:

[The] DWP says its ability to test for unfair impacts across protected characteristics is currently limited. This is in part because claimants do not always answer the optional questions about their demographics when making a benefit claim.²⁷¹

Overall, the UC automated system presents numerous benefits, including increased efficiency, accurate payments, and improved accessibility via the online portal. However, the level of automation within the system may lead to challenges in terms of transparency and accountability, as it is unclear to users, including technical experts and legal professionals. Additionally, some issues regarding insufficient document uploads or communication barriers to the benefits of individuals, while they may not always be aware of how these automated processes affect their benefits. It also faces challenges like technical issues and the need to bridge the digital literacy gap among claimants. Hence, it is essential for stakeholders to monitor and evaluate the system to ensure that it effectively serves its intended purpose while addressing any potential issues that may arise. Any mistakes or errors in using UC systems will affect large numbers of claimants and hinder their benefits, and cause an increasing number of issues and grievances against UC ADM systems.

These systems may generally function within public administration contexts, where decisions must adhere to administrative law principles (including transparency). However, there is limited public access to the DMP behind ADM systems. Thus, it is highly probable that these techniques are being employed in areas that are not yet publicly recognised.²⁷² In general, various studies have demonstrated the legal issues and problems associated with using these different types of systems in DMPs. While this study is concerned with how to redress and review a decision made by the ADM

²⁷¹ Comptroller and Auditor General (n 145).

²⁷² Christopher Knight, 'Automated Decision-Making and Judicial Review' (2020) 25 *Judicial Review* 21.

system in AJs, it is important to extrapolate the ADM's legal issues from the literature (Chapter 3 analyses these issues in detail).

2.13 Chapter Conclusion

This chapter has presented the developments of using AI technologies in the field of administrative justice DMP in the UK, and the development and implementation of ADM by public bodies. It can be seen that successive British governments have given great attention to the deployment of technology, and the UK pioneered both technology and computerisation in government service delivery. Moreover, this chapter presented different categories of AI-based systems that are used for DM, and classified AI-based systems used in the UK government's DMP into supervised/ unsupervised, automated-assisted systems/solely automated systems, and automation/augmentation.

It has also explained some existing ADM systems used by the UK government, particularly The ABC (Atlas and BRTC), EUSS Streaming, Home Office AVR, and UC systems. The rationale for the choice of these systems is that they are examples of ADM systems acting on behalf of public bodies, which have direct roles that affect people's rights and administrative justice. In such systems, there is a series of risks with respect to the features of administrative justice DMP.²⁷³ Additionally, there are current cases regarding decisions made by the above systems that have been addressed or are being addressed by AJs. The next chapter explains how these cases occurred in administrative justice DMP and what administrative wrongs and risks arose and may arise from using ADM systems by public bodies.

²⁷³ Mark Latonero, 'Report: Governing Artificial Intelligence: Upholding Human Rights & Dignity. Data & Society' (2018).

Chapter 3

ADM in Administrative Justice Decision-Making Process: Challenges

3.1 Introduction

People generally tend to trust automation and think that ADM systems are fair and objective,²⁷⁴ by consistently applying standards and rules independently.²⁷⁵ However, ADM can have negative impacts on administrative justice, which comprises DM itself, using rules and applications, and review, as explained in Chapter 1. It is crucial in any analysis of administrative justice to explore the issues and challenges that may arise from initial DMP and how the need for redress can arise.²⁷⁶

This chapter accordingly explores common challenges to administrative DMP (the first part of administrative justice) to understand case types brought to AJs on administrative automated decisions. It applies an existing typology of traditional administrative problems of DMP to the ADM world. As mentioned in Chapter 1, using an existing typology is an important tool in the process for categorising and organising the types of the issues without generating or exploring them.²⁷⁷ The chapter also sheds light on potential new issues that may arise from ADM systems and affect the administrative justice process.

3.2 Administrative Grievance Typology

Some administrative justice scholars have conceptualised and analysed administrative grievances based on theoretical and practical situations, to enhance practical understanding and templates of problems to be extrapolated to ADM models.²⁷⁸ From the literature, there are different attempts to

²⁷⁴ Araujo and others (n 164).

²⁷⁵ Ibid.

²⁷⁶ Tomlinson (n 244).

²⁷⁷ Collier, LaPorte and Seawright (n 87), 165.

²⁷⁸ Tomlinson (n 244).

classify administrative wrongs and problems related to DMP, such as the administrative wrongs typology by Cowan and others which is used in this chapter. For the purpose of this chapter, ADM grievances can be classified into illegal decisions, maladministration, or substantive mistakes, as per Cowan's typology, which was selected because competences of AJs depend on the type of wrongs being alleged (as explained in Chapter 1). Courts commonly deal with issues of illegality, while tribunals commonly address substantive mistakes, and the ombudsman is often developed to examine the forms of maladministration. These institutions are thus considered the main objective in this research, and classifying case types based on Cowan's typology facilitates the discussions in later chapters about the challenges in RP within these institutions.²⁷⁹

3.2.1 Administrative Wrongs by Cowan and Others (2017)

The typology developed by Cowan and others is based on their empirical research, initially exploring the use and incidence of compulsory internal review in homelessness law, seeking to open debates about the appropriateness of mandatory reconsideration as a feature of AJs.²⁸⁰ They suggested a typology of administrative wrongs comprising the subject of administrative law to consider the role of reconsideration as one response to such wrongs. Thus, they introduced a general basic typology of administrative law problems focused on administrative wrongs, namely illegality, maladministration and substantive mistake in the administrative decision (Figure 3.1). Each of these dimensions of administrative wrongs contains categories of problems that may lead to adverse effects on people, thereby causing injustice. In this case, the decision may be subject to be redressed by AJs.²⁸¹

²⁷⁹ Dave Cowan, Abi Dymond, Simon Halliday, Caroline Margaret Hunter, 'Reconsidering Mandatory Reconsideration' (2017) April Public Law 215.

²⁸⁰ Ibid.

²⁸¹ Patricia Ng, 'Public and Private Realms of the Administrative Justice System: Homelessness Cases in England' (2020) 2 *Amicus Curiae* 1.



Figure 3.1: Cowan's typology of administrative wrongs²⁸²

3.2.1.1 Illegality

In order to study the disputes that may occur under this type of administrative wrong, it is first necessary to define the concept of legality in AJ. Legality entails 'that the decision maker must understand correctly the law that regulates his DM power and must give effect to it'.²⁸³ It is the duty of the decision makers to ensure the legality of the decisions and their compliance with the law, in order to achieve AJ. The concept of legality includes principles of DM within the scope of legitimate authority, exercising discretion correctly, adhering to the legal process, and protecting fundamental rights.²⁸⁴ Adherence to legality is crucial in maintaining the rule of law and ensuring fairness and accountability in the administrative process. If any administrative decision was issued contrary to these rules, there will be a case of illegality, which might be eligible to be challenged in a court or a

²⁸² Ibid.

²⁸³ Stanton and Prescott (n 22) 606.

²⁸⁴ Cowan and others (n 300).

tribunal.²⁸⁵ Section 3.2.1 explains in detail the circumstances of illegality and the relevant examples from practical ADM issues.

3.2.1.2 Maladministration

Although maladministration includes a broad scope of categories and issues, the concept in itself is not defined clearly in legislation.²⁸⁶ However, in the Parliamentary Commissioner Act 1967 (PCA), which established the Parliament Office of Administration, Richard Crossman (the minister responsible for introducing the legislation into the House of Commons in 1967) introduced what can be considered the ‘Crossman catalogue of maladministration’,²⁸⁷ which included bias, incompetence, neglect, delay, inattention, ineptitude, perversity, and arbitrariness.²⁸⁸ In 1993 the Crossman catalogue was updated by Sir William Reid (a Parliamentary Ombudsman), who also provided an expanded list of potential issues of maladministration, including rudeness, unfair treatment, refusal to answer reasonable questions, neglect, giving wrong advice, ignoring valid advice, offering disproportionate redress, showing bias, refusing to inform adequately of the right of appeal, and faulty procedures.²⁸⁹

Based on the above examples, it appears that the definition of maladministration has developed over time, and may overlap with illegality, especially in cases involving unfairness and bias amounting to illegal discrimination or other rights violations. According to John Stanton and Craig Prescott, Crossman considered that the main matter in maladministration is the process by which the decision was made, rather than the outcome of the decision.²⁹⁰ In maladministration, a decision may be legally correct, but the procedures of its issuance may involve a case of maladministration, such as delay, neglect, or rudeness.

²⁸⁵ Elliott and Thomas (n 56), 82.

²⁸⁶ Ibid. 137.

²⁸⁷ Anne Dennett, *Public Law Directions* 2021, (Oxford University Press) 343.

²⁸⁸ Ibid.

²⁸⁹ Stanton and Prescott (n 22) 606.

²⁹⁰ Ibid.

In 1975, a case arose when the administration neglected to pay legal entitlements to applicants, whereby a retired colonel claimed that the Agency of Health and Social Security (now the DWP) had refused to pay interest on arrears of a military disablement pension that the Department had pledged to pay from 1964.²⁹¹ During the investigation, the ombudsman discovered that the Department's predecessor had withheld the necessary rank addition to the pension from the complainant and other retired officers with disabilities. The Department's legal advice stated that the arrears were due beginning in 1964, but officials ignored this. Instead, debts were only paid in cases that were discovered during subsequent investigations. In practice, this meant that only recipients who actively complained about their payments would be eligible to receive the arrears owed to them. Unless a case was brought to their attention, officials did not review the data to determine how many more cases might have been affected. Consequently, many disabled ex-officer retirees did not receive a large portion of their lawful claims.²⁹² Robert Thomas recounted that 'The Parliamentary Ombudsman concluded that officials had "deceitfully" withheld a significant part of the pensioners' rights, which was "deplorable"'.²⁹³

This example demonstrates how an illegality can result in a situation of maladministration. It is clear that the decision to neglect to pay interest to the disabled retired officers was illegal, but the officials' appeal of ignorance about non-discovered cases (by paying only for discovered cases arising from active complainants) is a case of maladministration. While there are no definite grounds for what is considered to constitute maladministration, this case exemplifies a case of maladministration that can arise when there is neglect or an illegal or unlawful decision. In later sections in this chapter, more examples of maladministration are given in the field of ADM, and how it may occur when using technology in the DMP are discussed.

²⁹¹ Robert Thomas, 'Legal Entitlements and Administrative Practices: LEAP Exercises and Benefits Administration' (2022) *the Journal of Social Security Law*.

²⁹² *Ibid.*

²⁹³ *Ibid.*

3.2.1.3 Substantive Mistake

‘Substantive mistakes’ are commonly referred to by various concepts in the literature, including ‘errors of fact’ or ‘merits review’. A substantive mistake is when a legally valid decision has been issued with an error in terms of material facts or their interpretation.²⁹⁴ In order to further clarify the meaning of the substantive mistakes, some examples can be mentioned that illustrate the difference between it and other administrative wrongs. Substantive mistakes occur when the decision-maker decides based on a misunderstanding of a fact, an incorrect basis of a fact, or ignorance of a relevant fact.²⁹⁵ For example, the decision maker may decide based on an error in the personal status of an individual, such as a mistake in calculating their income in decisions related to tax payment. Additionally, mistakes can occur as a result of maladministration action that may cause a mistaken decision. For instance, when a record is lost or an essential document is unavailable, the decision may be issued with a substantive mistake and an error in fact.

Thomas considered what happens when people do not receive their legal entitlements as a result of an ‘official error’,²⁹⁶ which he explained occurs when administrators process information in incorrect ways. Thomas also mentioned that a single error can have significant consequences for people’s legal entitlements and fundamental rights, such as a case in 2021, whereby many people, mostly elderly women, had not been paid their full state pension entitlement because their records had been wrongly updated due to systemic administrative errors.²⁹⁷ This case is explained in more detail later in this chapter.

3.2.1.4 Relationship between the Three Categories

Later sections of this chapter explain that ADM can generate a variety of wrongs that may fall under each of these types of administrative wrongs. Since this research is mainly concerned with the role of

²⁹⁴ Leyland and Anthony (n 307).

²⁹⁵ Ibid.

²⁹⁶ Thomas, ‘Legal Entitlements and Administrative Practices: LEAP Exercises and Benefits Administration’ (n 312).

²⁹⁷ Ibid.

AJIs in addressing these wrongs, it is necessary to determine the relationship between these three categories. Determining the relationship between them helps contextualise the later discussion in relation to AJIs, and may help in determining the most appropriate institutional organisations to review automated administrative decisions, given the differing authority and jurisdiction of different institutions.

Timothy Endicott explained the relationship and the overlap between these types of administrative wrongs in order to illustrate the conceptual meaning of each type.²⁹⁸ Generally, laws do not lay down the grounds for maladministration, and Parliament does not define it; thus, it is left to the discretion of the ombudsman to determine if a case is considered as maladministration. In relation to maladministration and illegality, Endicott mentioned that some acts of maladministration can also be considered as illegal. Figure 3.2 shows the overlap between these two types in order to help in understanding their meanings. However, most acts of maladministration are *not* in themselves illegal, such as delays and rudeness in service delivery.²⁹⁹

Moreover, the merits (or mistakes) of a decision taken without maladministration cannot be questioned by the ombudsman, although the law does not say that ombudsmen cannot resolve the merits of a decision taken with maladministration.³⁰⁰ In this case, the ombudsman can resolve the tension and provide a recommendation to the administration.

²⁹⁸ Timothy Endicott, *Administrative Law* (5th edn, Oxford University Press 2021) 511.

²⁹⁹ *ibid.*

³⁰⁰ *Ibid.*

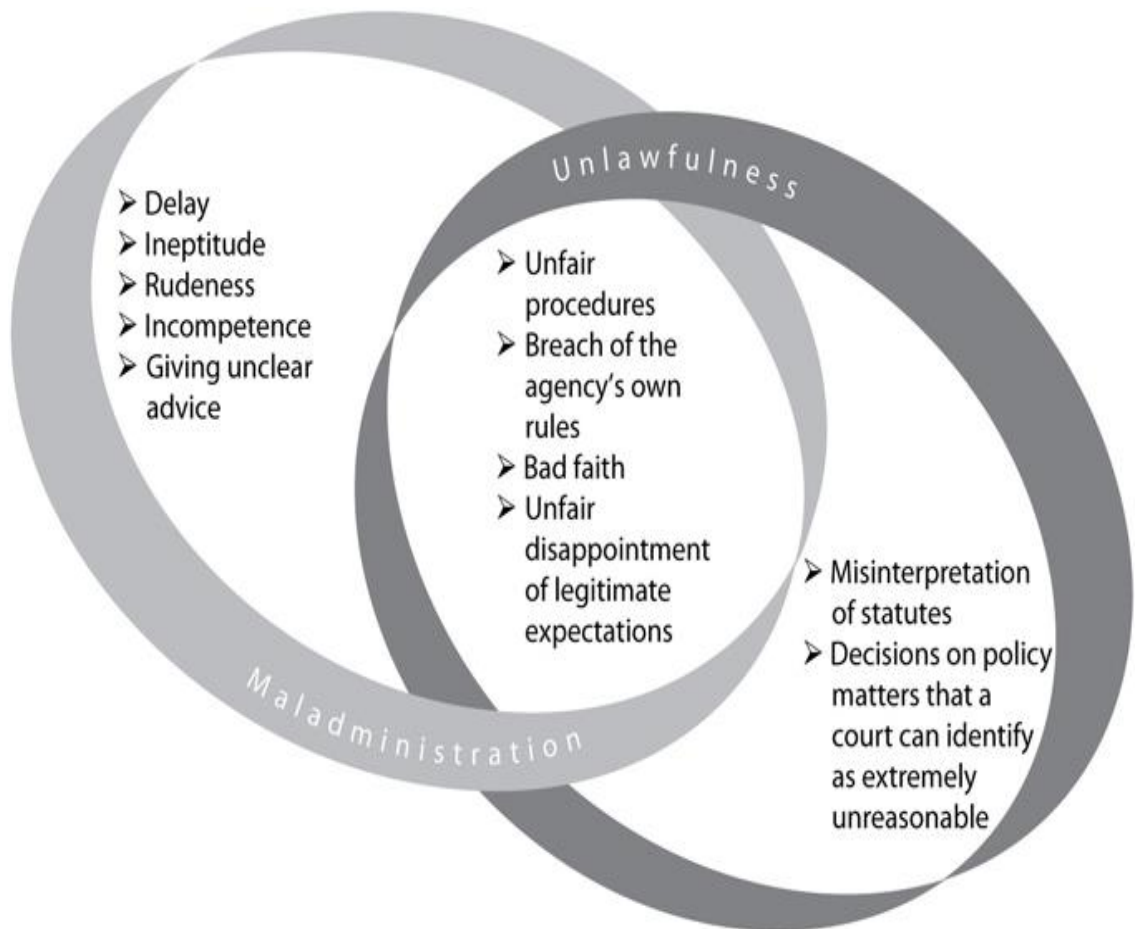


Figure 3.2: Maladministration and unlawfulness overlap³⁰¹

3.3 Applying Cowan and Other Typologies to ADM Issues

Although Cowan and other typologies undoubtedly enhanced the understanding of administrative problems that affect public decisions, it was developed with traditional (non-digital) administrative disputes in mind, and no specific typology exists that addresses the unique legal issues arising from ADM systems. Such a typology can apply the administrative wrongs under Cowan's typology (i.e., addressing the scopes of illegality, maladministration, and substantive mistake). However, new types of ADM problems related to DMP may be explored and added to the types of challenges in the

³⁰¹ Endicott (n 319), 512.

traditional administrative DMP. Cowan's typology is more pertinent for the purposes of the analyses presented in the upcoming chapters, as explained previously.

3.3.1 Illegality

ADM systems' decisions can potentially face claims of illegality based on several critical issues discussed in the following subsections. These concerns include the lack of legal authority, improper exercise of discretion, violation of non-delegation principles, and the restriction of basic rights. Each of these factors raises significant ethical and legal questions that need to be addressed to ensure the legitimacy and fairness of ADM systems.

3.3.1.1 Lack of Legal Authority

The absence of legal authority may render ADM decisions void, as actions taken without proper authorisation violate fundamental legal principles.³⁰² Public authorities must stay within their legal powers; otherwise, they will be operating "ultra vires", which means acting without legal authorisation.³⁰³ Similarly, the legality of using ADM systems instead of humans to issue decisions needs to be authorised by the law. Since ADM systems are based on personal data, the Data Protection Act (DPA) 2018 and the UK General Data Protection Regulation 2021 (GDPR) have included the legal standards of using ADM in DMP, including administrative decisions.³⁰⁴ The UK GDPR and its legal provisions offer a particular example of a more general principle in English law whereby public authority action requires legal authorisation. Article 22(2) (b) in the UK GDPR incorporates DPA 2018 Section 14, which requires that 'a law enforcement controller' may not make a significant decision based solely on automated processing, unless that decision is required or authorised by law, and that

³⁰² Cobbe (n 192).

³⁰³ Lisa Webley and Harriet Samuels, *Complete Public Law* (5th edn, Oxford University Press 2021) 518.

³⁰⁴ Cobbe (n 192). Cobbe mentions that the initial limitations on the use of ADM to be legal are those established by data protection law. These restrictions come whenever personal data is involved in ADM processes, making them broad statutory limitations relevant to majority of public administration areas.

a decision is a 'significant decision', in that it either produces an adverse legal effect concerning the data subject or significantly affects them.³⁰⁵ Article 22(1) states:

The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects.³⁰⁶

Some interpreted this as a general prohibition, whereas others considered it to be a right to be exercised at the data subject's discretion.³⁰⁷ If GDPR Article 22(1) is interpreted as a *prohibition*, data controllers are effectively prohibited from making individual decisions solely based on automated processing, unless one of the exceptions specified in Article 22(2) applies. According to GDPR Article 22(2), solely ADM is permitted only if: (a) it is necessary, or (b) authorised by law, or (c) it is based on the data subject's explicit consent.

On the other hand, if GDPR Article 22(1) is interpreted as a *right*, the use of fully automated decisions would be limited only where the data subject has expressly objected to such decisions. This would imply that data controllers, or administrative agencies, would be free to issue decisions based solely on automated processing, but the recipients of such decisions would be free to reject them.³⁰⁸

A number of police forces across the UK have trialled 'predictive policing' tools, which use algorithms and historic data to predict where certain types of crime (for example, burglaries and street violence) are likely to occur. Similar tools have also been used by a small number of police forces to predict the likelihood of known individuals exhibiting certain behaviours or characteristics in the future, as public bodies responsible for safeguarding the community, performing administrative functions on behalf of

³⁰⁵ UK GDPR Chapter 3 - Article 22 (2).

³⁰⁶ Ibid. Article 22 (1).

³⁰⁷ Emily M Weitzenboeck, 'Simplification of Administrative Procedures through Fully Automated Decision-Making: The Case of Norway' (2021) 11 Administrative Sciences 4, 149.

³⁰⁸ Ibid.

a public body.³⁰⁹ When an officer utilises an ADMS to make decisions, the decision is a public decision, within the remit of the court to review.³¹⁰

It is important here to mention the case of *R (Bridges) v. The Chief Constable of South Wales Police*, given that it underscores the responsibility of authorities to ensure that the deployment of ADM, like facial recognition, is conducted with proper legal authority. It involves significant legal discussions about the use of facial recognition technology by law enforcement agencies in the UK. Specifically, it centres on whether the police had the necessary legal authority to deploy this technology in accordance with existing laws, including the UK GDPR and the European Convention on Human Rights (ECHR).

Mr. Bridges, the claimant, argued that South Wales Police's use of AFR was illegal due to the absence of clear legal authority for its implementation.³¹¹ He contended that the police's actions constituted a breach of his rights under Article 22 of the UK GDPR, which governs ADM and profiling. Furthermore, the argument raised issues related to privacy rights under Article 8 of the ECHR, which protects individuals from arbitrary interference in their private and family lives. This provision asserts that any such interference must be 'in accordance with the law' and necessary for legitimate aims, including public safety and crime prevention. Article 8 of the ECHR:

'There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society, public safety or the economic well-being of the country, for the prevention of disorder

³⁰⁹ Jennifer Brown, 'Police Powers: An Introduction' (2021), House of Commons Library, <<https://researchbriefings.files.parliament.uk/documents/CBP-8637/CBP-8637.pdf>> accessed 25 July 2024.

³¹⁰ Harriet Green, 'Consciousness over Code: How Judicial Review Can Address Algorithmic Decision-Making in Policing' <[https://www.york.ac.uk/media/law/documents/eventsandnewsdocs/2.Consciousness over Code_Harriet Green.pdf](https://www.york.ac.uk/media/law/documents/eventsandnewsdocs/2.Consciousness%20over%20Code_Harriet%20Green.pdf)> accessed 25 July 2024.

³¹¹ *R (Bridges) V the Chief Constable of South Wales Police* [2020] EWCA Civ 1058.

or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.³¹²

The Court of Appeal ultimately ruled in favour of Mr. Bridges, determining that the use of AFR technology by South Wales Police did not meet the required legal standards. Consequently, the court found that the police actions were not compliant with the legal framework necessary to justify the deployment of such technology.³¹³ The implications of this ruling are significant, apparently setting a precedent for the legal scrutiny of ADM employed by agencies (i.e., the police). Additionally, the case reinforces the principle that public bodies must operate within the law, thus providing a basis for individuals to challenge potentially unlawful surveillance practices. Overall, *the Bridges* case seems to serve as a future significant examination of the intersection between technology and law enforcement practices.

3.3.1.2 Non-Delegation

The non-delegation principle refers to the assumption that authority will be exercised solely by the specific decision-maker to whom such authority is delegated.³¹⁴ Limiting the power to the person or body named in the law ensures that the responsible party can be easily identified, which increases accountability.³¹⁵ Therefore, courts have ruled that it is unlawful for the statutory decision-maker to automatically adopt someone else's point of view, or to condition their decision on the approval of another.³¹⁶ Regarding adopting ADM, if an official body always or typically treats an ADM system as the final DM authority, which may be considered an illegal abdication of legal authority.³¹⁷ The non-

³¹² Article 8(2) of the European Convention on Human Rights (ECHR) (1953)

³¹³ *Bridges v South Wales Police* (n 332).

³¹⁴ *Elliott and Thomas* (n 56), 540

³¹⁵ *Ibid.*

³¹⁶ *Ibid.*

³¹⁷ Andrew Le Sueur, 'Robot Government: Automated Decision-Making and Its Implications for Parliament' (2016) in A Horne and A Le Sueur (ed), *Parliament: Legislation and Accountability*, Hart Studies in Constitutional Law series (Oxford, Hart Publishing, 2016), 183-202.

delegation principle, in the context of ADM, refers to the idea that certain critical decisions should not be entirely handed over to automated systems without human oversight or involvement.

Moreover, Cobbe explained that if decision-makers defer to the outputs of ADM systems without critically assessing the recommendations provided, they risk illegitimately delegating their DM authority.³¹⁸ Similarly, Blake states that an ADM may make an administrative decision that a specific official is authorised by law to make, but this may not be legal if it results in an improper delegation of DM authority, which pertains to the underlying issue facing legislatures and judicial processes in relation to ADM.³¹⁹ This could lead to decisions being considered unlawful due to a failure to comply with the principle of non-delegation. Additionally, to adhere to this principle, it is essential that decision-makers demonstrate they have exercised meaningful oversight over the recommendations generated by ADM systems. This means that they must actively engage with the DMP and not simply accept the automated outputs at face value.

In this regard, Andrew Le Sueur mentioned that the Social Security Act of 1998, Section 2 was the first statutory provision to allow for ADM,³²⁰ particularly in:

'2) Use of computers

(1) Any decision, determination or assessment falling to be made or certificate falling to be issued by the Secretary of State under or by virtue of a relevant enactment, or in relation to a war pension, may be made or issued not only by an officer of his acting under his authority but also—

(a) By a computer for whose operation such an officer is responsible; and

³¹⁸ Cobbe (n 192).

³¹⁹ Sara Blake, *Administrative Law in Canada* (7th edn, LexisNexis Canada 2022) 153.

³²⁰ Andrew Le Sueur, 'Robot Government: Automated Decision-Making and Its Implications for Parliament' (2016) in A Horne and A Le Sueur (ed), *Parliament: Legislation and Accountability*, Hart Studies in Constitutional Law series (Oxford, Hart Publishing, 2016).

(b) in the case of a decision, determination or assessment that may be made or a certificate that may be issued by a person providing services to the Secretary of State, by a computer for whose operation such a person is responsible'.³²¹

It states that a distinction should be made between situations (a) where there is complete automation, so the computer could be regarded as the decision maker; and (b) where there is only partial automation. Despite (a) authorises the Secretary of State to adopt a computer to make a decision, it is still restricted by the people's right in Article 22 (3) of the UK GDPR. It asserts that individuals have the right to obtain human intervention from the authorised decision-makers who are using ADM in their decision-making process. While in (b), the presumption against delegation does not apply, and the automated procedure is only a tool to assist the human decision-maker.³²² Additionally, the article provides a clear condition that the Secretary of State is accountable and responsible for any issues that may occur by the automated decision. In case the Secretary of State rely on ADM without oversight or responsibility, it appears that a potential issue of illegality in violation of non-delegation principles may occur.

This provision is reminiscent of the *Johnson*³²³ case, wherein the Secretary of State's completely automated system (i.e., the UC automated system, as explained in the previous chapter) raised significant concerns about adhering to non-delegation principles. This was because the Secretary of State relied on the systems without sufficient oversight or discretion with regard to individual circumstances. In the *Johnson*, the main issue was the use of a highly automated system to calculate UC payments. This approach resulted in major financial discrepancies for the claimants due to the timing of their wage payments. The case highlighted the struggles faced by four women, recipients of

³²¹ Social Security Act 1998 (Legislation.gov.uk).

³²² Le Sueur (n 338).

³²³ *Johnson and others v SSWP* (2019) EWHC 23.

UC, who experienced substantial fluctuations in their payments because of how their wages aligned with the monthly assessment periods.

Despite their stable earnings and unchanged personal circumstances, some assessment periods recorded two wage payments to the claimants, while others recorded none. This problem arose when two wage payments fell within one UC assessment period, leading to reduced benefits, and conversely, increased benefits in periods without wage payments. The claimants contested the decisions affecting their benefits during these periods, seeking judicial review on the grounds that the system's design did not accurately reflect their consistent earnings and circumstances, thereby causing them undue hardship. This inconsistency led to serious financial difficulties, especially as these women were the primary caregivers for their children, impacting their ability to pay for rent, utilities, and other essential bills.

The Secretary of State's heavy reliance on an automated system without sufficient oversight demonstrated an area where the adherence to the principles of non-delegation and fettering discretion was questionable. As a result, the court recognised that while the decisions adhered to the statutory framework, the lack of flexibility and oversight in handling such automated decisions posed significant problems. The judgment suggested a need for potential oversight ensuring that automated systems operate in a manner that upholds the purposes of using such systems for all beneficiaries.

3.3.1.3 Fettering Discretion

The principle of 'discretion' allows decision makers to choose from a range of possible outcomes based on their interpretation of the law and facts within the limitations established by law. Importantly, while discretion enables personal decision, it must still be grounded in legal principles, relevant statutes, rules, and precedents. The meaning of 'fettering discretion' refers to a DM body with discretion exercising public functions, which shall not prevent itself from exercising legal discretion in

individual cases.³²⁴ Accordingly, discretionary powers require a decision-maker to take into account the individual, specific circumstances of an issue and avoid inflexibility.³²⁵

Using ADM in administration may affect and limit the principle of the discretionary power granted by administrative law to decision-makers in considering the relevant issues around a decision. When ADM are incorporated into discretionary DM, this can result in decision-makers limiting their discretion by neglecting to take individual circumstances into account.³²⁶ This raises an important question about the validity of ADM in terms of permitting exceptions and dealing with cases that require discretionary power. According to Anna Huggins:

Pre-programmed processes rely on an ‘if this, then that’ logic, which is deterministic and ostensibly suited to non-discretionary decisions. Accordingly, a human should be involved if an automated administrative decision requires the exercise of discretion or judgment.³²⁷

In this context, it is unsuitable to utilise ADM in discretionary contexts requiring the decision-maker to be satisfied with some relevant matter before reaching a decision because ADM may constrain decision-makers in exercising any discretion they have been given in specific matters.

However, decision makers rely on the decisions made by automation without review, and believe that reviewers do not need to scrutinise ADM decisions as closely as they would human decisions, which is called ‘automation bias’.³²⁸ The latter occurs when a decision maker prefers information provided by a computer over what is submitted by the applicant through traditional procedures.³²⁹ As Abe Chauhan has explained, decision-makers are inclined to over-value ADM, and think that its results are

³²⁴ Ibid.

³²⁵ Cobbe (n 192).

³²⁶ Green (n 331).

³²⁷ Anna Huggins, ‘Addressing Disconnection: Automated Decision-Making, Administrative Law and Regulatory Reform’ (2021) 44 University of New South Wales Law Journal 3, 1048.

³²⁸ Cobbe (n 192).

³²⁹ Tomlinson (n 244).

correct; therefore, they neglect to conduct independent reviews or consider other relevant factors fully. For example, Sara Blake argues that:

Where measures to ensure consistency lead to decision makers deciding cases based on factors or considerations other than the ones before them, this can also be a form of bias.³³⁰

In the UC calculation process, as explained in the previous chapter, the UC system calculates monthly benefits automatically based on the income reported by claimants' employers through the RTI system to HMRC, with no human intervention.³³¹ According to the Universal Credit Regulations 2013 Regulation 61(2), the Secretary of State uses this information to determine earnings for each assessment period. If no data is received from HMRC in a given period, earnings are assumed to be zero.³³² Though there are limited exceptions allowing some discretion, these do not address issues such as pay date conflicts, like those in the *Johnson* case.

The intended limitation on discretionary powers means that any adjustments to the automated calculations must be done manually, usually following a request from a claimant. This restriction is due to the significant time required from DWP staff and the absence of an automated solution. As a result, in *Johnson*, the narrow discretionary scope meant the Secretary of State could not resolve the pay date conflict issue.³³³

³³⁰ Blake (n 340).

³³¹ Claire Hall, 'A Judge Over Your Mechanical Shoulder: The Role of Judicial Review in Shaping Algorithmic Bureaucracies' (Masters dissertation in University of York 2022) published on https://etheses.whiterose.ac.uk/id/eprint/31843/1/Hall_thesis%20for%20depositing%20final.pdf accessed on 6 October 2025 .

³³² Ibid.

³³³ Ibid.

It appears essential to ensure that the discretion of the public authority should not be limited or displaced, as explained above, even if the ADM system is provided as a complete and integrated solution.³³⁴

3.3.2 Basic Rights

3.3.2.1 Inequality and Discrimination

Illegality applies when decisions are alleged to violate fundamental human rights or the statutory rights of people within particular jurisdictions, such as decisions involving discrimination or the imposition of unreasonable conditions.³³⁵ In relation to ADM, automation can improve fairness and equality before the law by minimising wrongs in the application of the law and reducing bias.³³⁶ For example, in the EUSS, automation is used to ensure that decisions are applied equally to everyone with an eligible status and that the same answer is delivered when the same inputs are presented.³³⁷ This ensures that persons in similar circumstances receive the same treatment. This example shows how certain types of automation might eliminate biased humans' ability to discriminate against certain groups. By only using criteria that are actually important and relevant to making the decision, a well-designed system could eliminate both conscious and unconscious bias.

Monica Zalnieriute and others argued that ADM systems are less likely to be lawful, and are more likely to violate the concept of the rule of law, because pre-labelled data may contain unfair results and biases programmed or built into machines by human individuals or systems.³³⁸ Additionally, ADM systems themselves can execute discrimination, which has been documented in many areas. Despite ADM (and ML algorithms in general) being trained to recognise statistical patterns in data, they are not perfect, and can make biased categorisations or predictions. The size of the training dataset has a

³³⁴ Williams (n 12), 478.

³³⁵ Michael Adler, 'Tribunal Reform: Proportionate Dispute Resolution and the Pursuit of Administrative Justice' (2006) 69 *Modern Law Review* 958.

³³⁶ Monika Zalnieriute, Lyria Bennett Moses and George Williams, 'The Rule of Law and Automation of Government Decision-Making' (2019) 82 *The Modern Law Review* 425.

³³⁷ Tomlinson (n 244).

³³⁸ Zalnieriute, Moses and Williams (n 357).

strong correlation with the accuracy rate of an ADM: more data leads to fewer errors, whereas less data leads to poorer predictions.³³⁹ Minorities are, by definition, underrepresented in datasets, as a consequence of which the accuracy of results for minority populations suffers greatly. For example, a recent study evaluated three commercial gender classification systems and showed that:

Darker skinned females are the most misclassified group (with error rates of up to 34.7%). All classifiers returned better results for lighter skinned individuals and males, and the worst performances of all were observed for darker skinned females... This is not because darker females are more difficult to classify, but simply because they were underrepresented in the training datasets.³⁴⁰

As a result, various sources of unfairness or bias in ADM systems can arise, based on the data collected for ML algorithm training (i.e., the available data), the way the data is labelled, and the feature selection process.³⁴¹ An example of the potential for such bias is given by the EUSS, with regard to data from working tax credits, child tax credits, and child benefit records not being provided as part of the process.³⁴² Because women are more likely to receive such benefits, the omission of this data places women at greater risk of failing the automated assessment.³⁴³ In summary, if the training data contains biases or historical discriminations, the ADM will inherit them and incorporate them into its future decisions. In that way, automated discrimination and inequality are perhaps more risky than traditional forms of human DM.

One notable case is *R (on the application of The Joint Council for the Welfare of Immigrants) v Secretary of State for the Home Department (2020)*, in which the Joint Council for the Welfare of Immigrants

³³⁹ Claude Castelluccia and Le Métayer Daniel, 'Understanding Algorithmic Decision-Making: Opportunities and Challenges' (2019) the European Parliament <<http://www.europarl.europa.eu/thinktank>> accessed 31 May 2022.

³⁴⁰ Ibid.

³⁴¹ Gal Yona, 'A Gentle Introduction to the Discussion on Algorithmic Fairness' (Medium 5 October 2017) availabl at [A Gentle Introduction to the Discussion on Algorithmic Fairness | by Gal Yona | TDS Archive | Medium](#) accessed on 5 October 2025.

³⁴² Tomlinson (n 244).

³⁴³ Ibid.

(JCWI) challenged the Home Office's use of an algorithm for processing visa applications. The JCWI argued that the algorithm was discriminatory, particularly against applicants from certain nationalities, and raised concerns about discrimination.³⁴⁴ They asserted that this ADM system was unlawful under the Equality Act 2010 and the Data Protection Act 2018, leading to indirect discrimination. As it utilised statistical analysis to profile visa applicants, the claimants maintained that the system reinforced biases, resulting in higher scrutiny and rejection rates for individuals from specific countries, thereby failing to comply with the Public Sector Equality Duty (PSED) outlined in the Equality Act 2010.

In November 2020, the High Court ruled in favour of the JCWI, requiring the Home Office to cease the use of the questioned algorithm. The Court determined that the Home Office had insufficiently met its PSED obligations and had not adequately considered the algorithm's impact on applicants regarding indirect discrimination. This ruling resulted in a significant shift, emphasising the importance of fairness, transparency, and accountability in governmental DMPs. It further underscored that automated systems must operate within the legal frameworks of equality and data protection, prompting a re-evaluation of how technology is employed in public administration to prevent discrimination and uphold individuals' rights.

Moreover, the *Johnson*³⁴⁵ case also provides one example of a judicial review challenge being brought in regard to an automated decision that breached fairness and human rights. The court determined that the automated system used to calculate UC payments was unlawful due to its breach of human rights and principles of fairness. It recognised that the rigid application of the system, which failed to account for the individual circumstances of the claimants as explained above, resulted in significant financial hardship. This failure meant that decisions affecting the claimants' welfare were made

³⁴⁴ *R (Joint Council for the Welfare of Immigrants) v Secretary of State for the Home Department* (2019) EWHC 452.

³⁴⁵ *Johnson and others v. SSWP* (n 344).

without proper consideration of their unique situations, undermining the fairness expected in administrative processes.

3.3.2.2 Privacy

Articles 13 and 14 of the UK GDPR³⁴⁶ require data users (e.g., officials) to notify data subjects (e.g., service users) how their personal information has been used.³⁴⁷ Private data must be handled in a truthful, lawful, and open way with the person whose data it is. In particular, decision makers must be clear about how they plan to use private data and provide people with relevant privacy notifications. When obtaining private data, such data must be handled only in ways considered reasonable to expect, and should never be used for any objective other than those specified in the officials' rational basis for handling it.³⁴⁸

Problems relating to privacy issues are a major concern of ADM, as identified and reported by affected people and legal researchers. For instance, it is possible that the right of privacy may be infringed by public bodies when they use personal data for illegal purposes, including in ways not explicitly consented to by the service user. Such unauthorised uses may be undertaken by public servants exploiting their positions to access or use people's personal data for unauthorised purposes, such as data breaches for the purpose of selling them to online scammers or thieves.

Furthermore, the use of ADM could also result in other issues that are dangerous for privacy and data security in a variety of ways, due to the vast amount of private information that must be collected to train ADM algorithms, all of which is potentially susceptible to attacks or hacking. The mere suspicion that one's personal data is being collected and possibly analysed can have a negative effect on people, even when there has been no external attack.³⁴⁹ For instance, attackers can try to retrieve the ADM

³⁴⁶ UK GDPR 'UK GDPR Updated for Brexit' (1 January 2021) <<https://uk-gdpr.org/>> accessed 19 October 2022.

³⁴⁷ Maja Brkan, 'Do Algorithms Rule the World? Algorithmic Decision-Making and Data Protection in the Framework of the GDPR and Beyond' (2019) 27 *International journal of law and information technology* 91.

³⁴⁸ *Ibid.*

³⁴⁹ Castelluccia and Daniel (n 360).

model itself or extract details about the training data, raising real privacy worries. According to a report on ‘Understanding Algorithmic DM’ issued by the European Parliament in 2019, a variety of proposals have been presented to deal with these security issues.³⁵⁰ Some of these entail creating privacy-preserving ADM by anonymising the training datasets and the models that are produced.³⁵¹

In *Bridges*, the High Court decided that while facial recognition does interfere with the privacy rights of everyone scanned, the current legal framework provides sufficient safeguards. One of the primary challenges in this case was determining whether the use of AFR technology was lawful under Article 8 of the ECHR, which requires a balance between public safety and individual privacy rights. The appeal court has reviewed a case involving the use of live automated facial recognition technology by a Respondent. The court declared that the respondent’s use of this technology on specified dates and on an ongoing basis was not in accordance with the law, specifically in relation to Article 8(1) of the ECHR. The court found that the use was unlawful, indicating challenges in ensuring compliance with human rights standards.³⁵²

3.3.2.3 Ignoring Legal Process

Legal process refers to the procedures that must be followed when making a decision.³⁵³ In the ADM context, Article 22 (3) in the UK GDPR involves putting in place appropriate safeguards for processing involved in automated decisions that have a legal or similarly significant impact on individuals, with safeguards whereby service users are able to ‘obtain human intervention; express their point of view; contest the decision made about them, and obtain an explanation about the logic of the decision’.³⁵⁴ Therefore, this section focuses on GDPR, because it is considered the main reference for the legality

³⁵⁰ Ibid.

³⁵¹ Ibid.

³⁵² *Bridges v South Wales Police* (n 332).

³⁵³ Timothy Endicott, ‘Administration and the Principles of the Constitution’, in *Administrative Law* (5th edn, Oxford University Press 2021) 125

³⁵⁴ ICO, ‘How Do We Ensure Individual Rights in Our AI Systems?’ <<https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/guidance-on-ai-and-data-protection/how-do-we-ensure-individual-rights-in-our-ai-systems/#howdoweensure>> accessed 21 October 2022.

of the automation process and the legal safeguards that must be taken into account when building systems by developers.

As explained above, there are some examples of defects in following the due process required by law in ADM. Firstly, the decision makers may be biased in various ways, as discussed above, and trust the decisions made by ADM without practising their required intervention in the ADMP as stated in the UK GDPR. Furthermore, while the UK GDPR explicitly highlights that individuals must have the ability to contest automated decisions, the opacity behind these types of decisions – sometimes including the very fact that ADM is used in DM – makes user awareness and access to such remedies problematic.

It appears that all of these elements require some aspects of prior knowledge, which the system's provider alone can provide. For instance, when contesting a decision, it is important to understand whatever factors the algorithm took into account so the data subject can know the necessary steps to contest the decision.³⁵⁵ Similarly, decision-makers themselves must know what standards they will use to properly exercise the obligation of human intervention,³⁵⁶ yet it is unclear how some systems would actually permit human intervention if a website or platform does not technically allow this (as explained in detail below). As a result, the capability to fulfil and the consequences of the measures already indicated by Article 22(3) GDPR appear to still require clarification.

3.3.3 Maladministration

Although the scope for maladministration is more characteristic of humans than machines (e.g., the rudeness of staff), there are some other cases that prove that a machine could give rise to some types of maladministration issues in ADM (as discussed in detail below). Maladministration may occur when public bodies do not have the necessary competence in knowledge or experience, or they may delay DM. However, automated systems generally outperform humans when it comes to the amount of

³⁵⁵ GDPRhub, 'Article 22 GDPR' <https://gdprhub.eu/Article_22_GDPR> accessed 4 November 2022.

³⁵⁶ Ibid.

data they can process in a short time period.³⁵⁷ The defining characteristic of the use of technology in government is the availability of databases to keep unlimited numbers of records and information that are retrieved within seconds. This makes such solutions faster, more secure, less vulnerable to data loss, and more accurate than traditional data storage methods. Thus, ML algorithms can make more consistent decisions related to the source of the given data, which increases the reliability of ADM. It is possible that delay is one of the administrative challenges that led governments to use technology that offers the fastest and most effective way to solve administrative decisions; automated checks are quicker, and generally seem to be successful in optimising the speed to issue decisions on time.³⁵⁸

Whilst ADM may be considered a response to problems of human delay, it may nonetheless entail administrative problems due to delays in DM, such as technical or operative shortcomings, as seen in a case analysed by Tomlinson, concerning long queues at the UK Border due to a nationwide IT error with e-gates at ports and airports, whereby technical problems caused electronic gates to stop working. Consequently, all passengers had to be checked through staffed airport desks, which are routinely understaffed due to the reliance on such gates. Additionally, Tomlinson cited a technical disruption that occurred in the EUSS system that delayed the DMP, whereby the applicants received a message stating that their applications could not be found. Tomlinson concluded that while ‘those who get positive outcomes under the Scheme’ would receive these decisions with greater speed, offering ‘a great benefit, reducing the significant problems associated with waiting and delay’,³⁵⁹ and those who did not get positive results were asked to provide more documentary evidence, which comprises a delay in itself, and which causes further secondary delays and increases application times.³⁶⁰

³⁵⁷ Nadia Burkart, Sebastian Robert and Marco F Huber, ‘Are You Sure? Prediction Revision in Automated Decision-Making’ (2020) 38 *Expert Systems*.

³⁵⁸ Adler (n 356).

³⁵⁹ Tomlinson (n 244).

³⁶⁰ *Ibid.*

Moreover, there are the problems of ‘lack of respect’ and ‘lack of responsibility’, all of which refer to behaviours that may occur due to staff treatment of service users in traditional contexts. Instances may include personnel being rude and unhelpful, using threatening or intimidating language or behaviour, and not acknowledging mistakes or offering apologies for them.³⁶¹ It appears that there is a small scope for such treatment in ADM contexts, and relying on automated decisions generally reduces problems such as ‘lack of respect’ associated with traditional face-to-face connections. However, ADM may lead to grievances arising from a service being perceived to be unavailable or deficient.

The most common ADM problems in service relate to the difficulty of uploading documents, including case evidence or messages received with no content, and other service issues related to ADM system design. For example, the absence of data needed to use services for children in the EUSS means that children are unlikely to receive positive results from data checks, because they will not have a national insurance number. Another concern around the use of technology is that systems may only be compatible with one or two platforms, which may not be available for everyone.³⁶²

Information failures (e.g., perceived information deficits) also can result in complaints, especially when people are unaware of the sources or grounds for a decision output. Therefore, conflicting and confusing information and communication are considered the most concerning issues in the DMP.³⁶³ ADM digitises processes and information about assisted digital services, and the information provided by those services may be sources of related grievances.³⁶⁴

³⁶¹ Adler (n 356).

³⁶² Tomlinson (n 244).

³⁶³ Adler (n 356).

³⁶⁴ Tomlinson (n 244).

3.3.4 Substantive Mistakes

Substantive mistakes may be issued by machines, as indicated by many cases and objections by people submitted to the UK's Parliamentary Technology Committee.³⁶⁵ Although humans create training datasets, and ADM models are taught by human designers, they may not always be reviewed or put to the test in every case. As a result, a system's model may contain issues that occasionally lead to faulty conclusions. Additionally, ADM poses a greater risk than the traditional DMP because output errors are likely to cause major opposing effects on a large number of people, and they may result in compound harms through the interaction of seemingly distinct systems.³⁶⁶ An investigative report published by the Parliamentary and Health Service Ombudsman in January 2022 about a government error with benefits payments highlighted that over 118,000 people had been seriously affected by a decision mistake issue.³⁶⁷ It presented the case of Ms U, whose Employment and Support Allowance (ESA) payments were mistakenly cut, leaving her unable to heat her home and buy food. ESA is paid to people who have a reduced capacity to work because of illness or a disability. The report was discussed in Parliament to compensate the 118,000 people affected by the system's error.³⁶⁸

Moreover, Thomas discussed two state pension underpayment cases which have occurred due to administrative errors in using computers.³⁶⁹ The first case arose after the DWP analysed millions of state pension records in 2020 by conducting numerous complex scans of computer systems. It was discovered in 2021 that many people, most of whom were older women, had not received their full entitlement to state pensions because their records had not been kept up to date. Married women

³⁶⁵ House of Commons Science and Technology Committee, 'Algorithms in Decision-Making Fourth Report of Session 2017-19 Report, Together with Formal Minutes Relating to the Report' (UK Parliament 15 May 2018) available at [Algorithms in decision-making \(parliament.uk\)](https://www.parliament.uk/business/committees/committees-a-z/commons-science-and-technology/committees-a-z/commons-science-and-technology/algorithmic-decision-making/) accessed on 6 October 2025.

³⁶⁶ Archie Drake and others, 'Legal Contestation of Artificial Intelligence-Related Decision-Making in the United Kingdom : Reflections for Policy' (2022) 36 *International Review of Law, Computers & Technology*.

³⁶⁷ Parliamentary and Health Service Ombudsman 'The Ombudsman's Annual Report and Accounts 2021-2022' this publication is available at www.gov.uk/official-documents. Accessed on 29 August 2022.

³⁶⁸ *Ibid.*

³⁶⁹ Thomas, 'Legal Entitlements and Administrative Practices: LEAP Exercises and Benefits Administration' (n 312).

whose husbands became eligible for the state pension after 17 March 2008 wrongly lost out on the ‘enhanced pension’, which would have increased their income by up to 60%.³⁷⁰

Thomas mentioned another issue of ‘missed conversions’ that occurred when the law changed in 2008, and women’s spouses gained eligibility for a state pension, whereby some people’s basic state pensions should have been increased automatically.³⁷¹ These missed conversions also affected individuals whose partners died and whose state pension eligibility was not considered. The National Audit Office (NAO) concluded that systemic underpayments have occurred due to technical issues and complicated rules that can be interpreted by only a limited group of specialists who can understand the automated process. Additionally, the previous system’s reliance on manual reviews resulted in repeated human errors within the current (automated) systems.³⁷²

One example in this category of problems in ADM is the ‘ETS cases’. These cases are centred on a failed automated system ‘voice recognition algorithm’ used to identify suspected cheats in English language proficiency tests introduced within UK immigration law and approved by the Home Office. *Raja* was one of the tens of thousands of students whose visas were revoked or curtailed and whose studies were disrupted or ended after the Home Office accused them of cheating on this test. However, in early 2021, *Raja*’s name was cleared based on proving the mistakes in the system, and the international student succeeded in confirming his right to be in the UK. The ADM system in such cases caused many administrative issues due to substantive mistakes in decisions. The initial mistakes in the system resulted in unlawful issues, given that the home office was biased without verifying accuracy and relying on the conclusions of the system.³⁷³

The issues started when the ETS (a private educational testing organisation in the US, which provides the TOEIC test) asserted that their voice recognition system used in the TOEIC (not

³⁷⁰ Ibid.

³⁷¹ Ibid.

³⁷² Ibid.

³⁷³ Tomlinson and Maxwell (n 103) 6-32.

basically for cheating) had an error rate of less than 2%.³⁷⁴ In the UK, the Home Office applied a pilot study to use data from different tests in order to check the cheating issues.³⁷⁵ The key issue here is that the pilot did not evaluate the quality of the TOEIC recordings being analysed, which might differ from the pilot data, and different contexts emphasise different types of errors.

Additionally, the Home Office's 'Lookup Tool', which was used to match ETS evidence with their records, was riddled with mistakes.³⁷⁶ It included instances of people who did not need to take the TOEIC, misidentified nationalities, and test takers listed in multiple locations or at times when there was proof they were elsewhere. Given these numerous problems, it is difficult to accurately determine how many students were wrongfully accused of cheating. The Home Office's seamed failure to verify the accuracy of the ETS evidence which led to thousands of errors, a lack of awareness or disregard for its substantial shortcomings.

Additionally, in another scale, *Bates and others v Post Office* (i.e., the Post Office–Horizon case), the DPP in the UK used the Horizon-based evidence system to prosecute 736 employees, who were wrongly found guilty of theft, resulting in some of them being sentenced to prison.³⁷⁷ The Post Office first implemented the Fujitsu-developed Horizon system in 1999 for use in a variety of operations, including accounting and stocktaking.³⁷⁸ After it was reported that it had significant bugs that caused the system to make mistakes, including errors involving large sums of money, the decision in this case determined that the system was flawed, and the convicted Post Office workers were cleared.³⁷⁹ As Mr Justice Fraser observed in the High Court:

³⁷⁴ Home Office by Comptroller and Auditor General report 'Investigation into the Response to Cheating in English Language Tests' (*National Audit Office* on 24 May 2019) available [Investigation into the response to cheating in English language tests \(nao.org.uk\)](https://nao.org.uk/publications/investigation-into-the-response-to-cheating-in-english-language-tests) accessed on 6 October 2025.

³⁷⁵ Maxwell and Tomlinson (n 240).

³⁷⁶ *Ibid.*

³⁷⁷ Kevin Peachey, 'Post Office Scandal: What the Horizon Saga Is All about - BBC News' *BBC News* 22 March 2022) available [Post Office Horizon scandal: Why hundreds were wrongly prosecuted - BBC News](https://www.bbc.com/news/health-61484444) accessed on 6 October 2025.

³⁷⁸ *Ibid.*

³⁷⁹ *Ibid.*

Throughout the relevant period there were significant problems with Horizon, which gave rise to a material risk that an apparent shortfall in the accounts of a branch post office did not in fact reflect missing cash or stock, but was caused by one of the bugs, errors, or defects in Horizon.³⁸⁰

The Post Office was, at the time, publicly owned, and public bodies' reliance on outsourcing for an increasing range of services, including data processing and analysis used in official DM, can result in governments executing such substantive mistakes because of errors in third-party ADM systems.

3.4 Black Box Issue (Lack of Explainability)

A fundamental problem concerning the possibility of particular issues related to the lack of transparency and explainability in ADM is the 'black box' issue,³⁸¹ which prevents people and even judges from understanding the rationales behind decisions.³⁸² Some statutes mandate that the decision-maker must explain why statutory power was exercised; if no reasons are given, the person affected by the decision has the right to challenge it, and a judge is free to infer that the statutory power was exercised for no good reason. Within the realm of computing and ADM systems, this pertains to the explicit revelation of processes and information, ensuring that operations and data are readily accessible and understandable.³⁸³

Automation may have technical features to give rudimentary explanations,³⁸⁴ but such inputs are not always available for ADM systems, whereby the designer determines what the system's output will be, as well as whether or not it will give justifications for its conclusions or decisions.³⁸⁵ For example, in the case of taxation systems, individuals are not usually given clear information about how

³⁸⁰ *Bates & Ors v Post Office Ltd ((No3) 'Common Issues')* [2019] EWHC 606 (QB).

³⁸¹ Paulinus Ofem, Bassey Isong and Francis Lugayizi, 'On the Concept of Transparency: A Systematic Literature Review' (2022) 10 IEEE Access 89888.

³⁸² Zalnieriute, Moses and Williams (n 357).

³⁸³ Ofem, Isong and Lugayizi (n 402).

³⁸⁴ Zalnieriute, Moses and Williams (n 357).

³⁸⁵ *Ibid.*

payments were computed in general, or in their specific circumstances. As a result, the ability of algorithms and the black box ADM systems to produce transparency, explainability, and give reasons is highly doubtful, especially for certain types of tasks and algorithms.³⁸⁶ ADM models, trained on data and using ML, are more difficult to understand and explain than human decisions. Data has a variety of traits and features, each of which might have an impact on the models developed. Furthermore, as noted by Jenny Burrell:

While datasets may be extremely large but possible to comprehend, and code may be written with clarity, the interplay between the two in the mechanisms of the algorithm is what yields the complexity, and thus the opacity.³⁸⁷

ADM lacks the ability to explain how a decision is made and how specific inputs are converted into outputs, especially for people without the knowledge of computer software and algorithms (including legal experts and decision makers).³⁸⁸ However, it has been observed that the black box issues prevent even the technical experts from reaching a system's code, used data and the information that made a decision without disclosing the algorithm training datasets.

In *Bridge v. South Wales Police case*, Professor Anil Jain (expert witness for Bridge) from computer science department at Michigan State University, has reported (points 15 and 28) that he 'Cannot comment whether AFR locate has a discriminatory impact' as he doesn't 'have access to the datasets on which the systems are trained, and therefore cannot analyse the biases'.³⁸⁹ In similar cases, the black box issues in the government's use of ADM systems have led public bodies to refuse to disclose

³⁸⁶ Will Bateman, 'Algorithmic Decision-Making and Legality: Public Law Dimensions' (2020), ANU College of Law Legal Studies Research Paper Series, 94 Australian Law Journal 520.

³⁸⁷ Jenna Burrell, 'How the Machine 'Thinks': Understanding Opacity in Machine Learning Algorithms:' (2016) 3 Big Data & Society 1

³⁸⁸ Huggins (n 348).

³⁸⁹ The High Court of Justice, 'Witness Report in *Bridge v. South Wales Police* by Professor Anil Jain' (2019).

the criteria underlying their ADMPs. This lack of disclosure undermines fundamental principles of AJ and affects the importance of transparency and accountability in government actions.

The question raised here is what the reasons are behind this issue in ADM? Understanding the reasons behind the black box issue in administrative ADM requires examining the barriers that have led to the development of ADM systems in a manner characterised by opacity and “unexplainability”. The scholar Jenna Burrell categorises these barriers into three main forms: intentional secrecy, technical illiteracy, and difficulty of understanding. Each of these forms is discussed below.

Intentional Secrecy: Intentional secrecy occurs when the techniques and data used in ADM systems are deliberately concealed, often due to trade secrets or privacy concerns. For instance, in the case of the US COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) system, Northpointe Inc., the developer, chose not to divulge its algorithms, citing them as proprietary trade secrets.³⁹⁰ However, privacy laws and data protection regulations may prevent the disclosure of such data when the data contains personal information. Still, this intentional secrecy creates a situation where the inner workings of ADM systems remain obscured and complex from public and judicial scrutiny, which may affect the fairness of human rights.

Technical Illiteracy: refers to the inability of the general public and many professionals, such as attorneys, judges, and citizens, to understand the essential information and functioning of ADM systems. They remain opaque to the majority, who lack the technical knowledge required to interpret them. This widespread lack of understanding contributes significantly to the black box nature of ADM systems, as the users of these systems are often unable to grasp how decisions are being made and what data and algorithms are involved.³⁹¹

³⁹⁰ Burrell (n 408).

³⁹¹ Ibid.

Difficulty of Understanding: The complexity of ML algorithms themselves constitutes a barrier to understanding ADM systems. These systems often operate based on intricate models that process vast amounts of data, making their decision-making processes difficult to comprehend, even for technical experts. For instance, facial recognition technology involves a sophisticated amalgamation of features such as angles, colour, shape, and other facial characteristics. The complexity inherent in these systems means they typically do not provide clear reasons for the outcomes they generate. This lack of explainability adds to the administrative challenges associated with traditional decision-making processes and introduces new challenges specific to the operation of ADM systems.³⁹²

In summary, the black box issue in ADM systems arises from intentional secrecy, technical illiteracy, and the intrinsic difficulty of understanding complex ML models. These barriers contribute to a landscape where ADM systems can make decisions that are not transparent or easily explainable, leading to significant challenges for accountability, fairness, and regulatory compliance. Addressing these barriers is essential for improving the transparency and trustworthiness of ADM systems in administrative contexts.

3.5 Chapter Conclusion

This chapter has reviewed an important typology conducted by administrative scholars about administrative grievances that could be the focus of the AJs. It applied Cowan et al.'s 'administrative wrongs' typology to the issues that may arise from ADM in order to build a typology of grievances for the issues in the ADM world, such as issues of delay, equality for similar cases, and reduced human-related issues, such as the rudeness of human staff. However, computer systems can result in unexpected errors and unexplained outcomes that are especially linked to automation, and which may not be listed to the types of problems explained in Cowan's 'administrative wrongs'. Tomlinson

³⁹² Ibid.

suggests a conceptualisation of administrative grievances that distinguishes between the ADM sphere and the traditional DMP. The intricate connection between these spheres prompts a thorough examination of challenges of review that may result from technical faults, erroneous database utilisation, communication failures and delays.³⁹³

One of the objectives of administrative law is to develop a policy of continuity and stability in provisions, which is necessary to achieve consistency, predictability, and AJ.³⁹⁴ In this regard, the government practices are required to be open and transparent about the laws and policies they enact.³⁹⁵ However, its adoption of ADM in the DMP raises concern regarding the opacity in ADMPs, data gap and the explainability issues which reduce the transparency required to achieve AJ in the government.³⁹⁶ As a result, concerns arise around the potential problematic data sharing practices, communication inadequacies, and availability issues faced by applicants, particularly those who might not interface well with the digitalised components of a system. AJ is affected by transparency and openness issues in ADM, internet interruption, the risk of personal data attacks, loss, and theft, and overestimation of (i.e., overreliance on) new technology, which challenges the accuracy, fairness, and legality of decisions. Therefore, it is possible to refine the existing typologies of administrative grievances by adding those types of issues arising from ADM.

³⁹³ Tomlinson (n 244).

³⁹⁴ Huggins (n 348).

³⁹⁵ Zalnierute, Moses and Williams (n 357).

³⁹⁶ Tomlinson, Maxwell and Welsh (n 8).

PART TWO: EMPIRICAL DOCUMENTARY ANALYSIS

Chapter 4

ADM Challenges of Review in AJs: Documentary Analysis

4.1 Introduction

Following on from the discussion of the most common administrative issues and grievances that result from using ADM systems in the previous chapters, this chapter aims to study how AJs can review and address ADM cases in reality. Administrative law principles may be useful in highlighting the challenges in RP faced by reviewers while addressing the issues posted by ADM. However, there is a need to clarify a typology of the nature and sources of these challenges.

Given that published cases about ADM grievances are few, and existing studies about challenges in RP are limited in the literature, this chapter relies on public documents as a primary data source. It includes experts' evidence, official reports from some governmental bodies and private institutions from various aspects of law (administrative, criminal, civil, business, consumer protection, technology). The inclusion of different legal sources can offer a comprehensive understanding of the associated challenges, by including perspectives from empirical evidence (e.g., government documents, etc.) and case studies. The broader scope of analysing legal cases from different areas provides the chapter with a more complete analysis of ADM challenges in judicial review than merely analysing administrative law cases. Additionally, such data strengthens the analysis by studying real-world examples of how different areas of law address similar issues.³⁹⁷ By examining solutions from other areas in Chapters 6, 7, and 8, the study may find best practices that can be adapted for administrative law.

This chapter, therefore, employs qualitative documentary analysis in order to suggest a comprehensive typology of the problems and challenges of review ADM cases, utilising two

³⁹⁷ Bowen (n 99).

approaches: organising and structuring the data, and presenting the information through texts, tables, or figures, as described by Patrick Ngulube.³⁹⁸ Following the analysis of data from the documents, the thematic analysis method explained below is used. This method facilitates a comprehensive exploration of the administrative justice challenges of RP associated with ADM. The following analysis concludes with a suggested typology of ADM challenges in RP, derived from the thematic and analytical work.

4.2 Rationale for Adopting Qualitative Document Analysis

Embracing empirical research in addition to doctrinal research is justified on the grounds of the scarcity of empirical studies regarding the current research questions requiring exploratory analysis.

Chapter 4 illustrates that there is a lack of related literature about the ADM challenges in RP in the UK due to the limited number of documents in studies and research collections that discuss the ADM challenges of RP. It appears there are challenges in gaining enough information by exclusively depending on the theoretical and library-based method. Therefore, this approach can provide updated data on ADM issues and challenges and is necessary for analysing legal issues, assessing rules or policies, and advocating for legal reform,³⁹⁹ which is the main topic in this research.

Additionally, documentary analysis is suitable for the current study for various reasons:

1. This method provides access to documents that are published, accessible, and available to everyone. It facilitates the process of addressing the research questions and strengthening the research arguments.

³⁹⁸ Patrick Ngulube, 'Qualitative Data Analysis and Interpretation: Systematic Search for Meaning' in ER Mathipa and MT Gumbo (eds), *Addressing research challenges: making headway for developing researchers* (Mosala-MASEDI Publishers & Booksellers 2015) 131-156.

³⁹⁹ McConville and Chui (n 97) 20.

2. This method enables covering all institutions and bodies competent to review the automated decisions and address disputes without bias, by reviewing all their reports, decisions and the reviewers' and legal experts' perceptions of this type of decision.
3. This method helps the research avoid repeatedly listing the problems for each institution separately and offers a coherent framework that highlights the thematic and characteristics of the issues, resulting in a more comprehensive and clearer analysis.
4. By applying this method, the opinions of judges and experts from legal and technological fields can be obtained from reliable sources in a formal and efficient manner, whereas conducting direct interviews is impractical.
5. The observations and information can be extracted quickly and analysed in an organised manner in one context by identifying themes, keywords and critical phrases in the digital documents.
6. This method allows for the inclusion of various types of documents beyond the limitations of traditional literature reviews, which typically focus on academic books, articles, or scholarly websites. By embracing broader sources, it covers virtual documents such as videos, podcasts, and personal blogs. Consequently, while there is a lack of academic literature addressing the ADM challenges in RP in AJs, this approach will provide a richer collection of data and resources to effectively address the research's primary questions through real-world document analysis.
7. The digital records can be particularly insightful in troubleshooting required reforms, with regard to legal system flaws, best practices, proof of policy aims, and legislative considerations.

On one hand, qualitative researchers usually use many types of methods to collect data. They create the data (such as interviews) or sometimes they use pre-existing data (documents).⁴⁰⁰ In some

⁴⁰⁰ Hani Morgan, 'Conducting a Qualitative Document Analysis' (2022) 27 *The Qualitative Report* 64.

circumstances, it may be difficult to conduct interviews due to basic reasons like unavailability or unwillingness to be interviewed such as interviewing the judges in this study.⁴⁰¹ This was because this study started in conjunction with the COVID-19 pandemic, which made it hard for conduct an empirical study and to conduct observations.⁴⁰² However, analysing documents offers a relatively in-depth way to gather data. It also can potentially offer similar data to interviews in terms of exploring individuals' thoughts and insights.⁴⁰³

Additionally, researchers may influence the interviewees during interviews, but when conducting a document analysis, the data are documented and cannot be affected or changed by researchers. Although the nature of qualitative data records and the interpretations of analysts can all be given various forms of bias, document analysis is generally accepted as a more objective and less subjective methodology than face-to-face interviews.⁴⁰⁴ Additionally, using this method involves affordability and easy access. The Internet, electronic databases at universities and official websites offer access to a vast amount of data, often for free.⁴⁰⁵ There is also the advantage that using documents generally poses fewer ethical concerns than using other qualitative methods, because most documents are published and are available for anyone to examine in the public domain, and they do not typically involve the strict protections of human participants' rights in the direct forms of interviews.⁴⁰⁶

On the other hand, the disadvantages of conducting documentary analysis include working with limited data.⁴⁰⁷ For example, in this study, the limited data and documents in administrative law that provide cases and information about ADM challenges of RP were insufficient in themselves to generate answers to the research question. Thus, documents from other areas of law were included

⁴⁰¹ Ibid.

⁴⁰² Ibid.

⁴⁰³ Sharan B Merriam and Elizabeth J Tisdell, *Qualitative Research : A Guide to Design and Implementation* (4th edn, John Wiley & Son 2015) 175.

⁴⁰⁴ Ibid. 187-189.

⁴⁰⁵ Morgan (n 105).

⁴⁰⁶ Merriam and Tisdell (n 103).

⁴⁰⁷ Morgan (n 105).

that have documented the challenges of RP ADM. The broader scope of available documents from different aspects of law could identify the challenges (the direct aim of this study) and may provide solutions which could be helpful for administrative law.

The process of conducting document analysis begins with selecting documents based on four elements. According to Brid Dunne et al., researchers should consider authenticity, credibility, representativeness, and meaning in conducting documentary analysis.⁴⁰⁸

‘Authenticity’ involves the importance of ensuring that selected documents are consistent with sensible expectations, being free from linguistic or factual errors or changes.⁴⁰⁹ The analyst must ‘determine as much as possible about the document, its origins and reasons for being written, its author, and the context in which it was written’.⁴¹⁰ ‘Credibility’ addresses the reliability of a document’s source and whether it is free from biases.⁴¹¹ ‘Representativeness’ means that if a document contains material that can be generalised and reflects a collection of other documents about the same topic, it is representativeness.⁴¹² ‘Meaning’ is while making sure that the document provides clear and understandable evidence of fact (avoiding subjective bias from the researcher’s interpretation, or in the document itself).⁴¹³

All of the documents collected for analysis in this study can be considered authentic, reliable, representative, and clear. This is because they were selected from published sources and official channels (such as Gov.UK publications, professional associations, files of judgments, and published first-hand expert reports). These sources are recognised as authentic and highly respectable, free from forgeries and other forms of bias.

⁴⁰⁸ Bríd Dunne, Judith Pettigrew and Katie Robinson, ‘Using Historical Documentary Methods to Explore the History of Occupational Therapy’ (2016) 79 *British Journal of Occupational Therapy* 376.

⁴⁰⁹ *Ibid*

⁴¹⁰ Merriam and Tisdell (n 103).

⁴¹¹ Dunne, Pettigrew and Robinson (n 113).

⁴¹² *Ibid*.

⁴¹³ *Ibid*.

One challenge associated with document analysis is that the researcher cannot initially determine the total number and type of documents required before starting the research, based on the research questions. The collection of analysed documents is usually determined by the researcher being unable to find and analyse any more documents, whether due to the limit of available documents, or when more analysis does not generate new data.⁴¹⁴

4.3 Selecting and Structuring Documents

Table 4.1 presents the criteria for collection of the documents, which originated from a diverse range of sources, reflecting the nature and sources of the ADM review challenges. In terms of selection criteria, only documents indicating ADM review challenges published on selected websites were chosen for data extraction in the document collection set. The list of criteria includes types of documents (e.g., report, government response, and judgment), sources (UK government, case, and expert evidence), the area of law (administrative, commercial) and the type of challenges mentioned in the documents (regulatory gap, lack of transparency, limited access to information).

⁴¹⁴ Merriam and Tisdell (n 103).

Table 4.1: Criteria of collected documents and the types of challenges in each document

A) Type of Document	B) Area of Law
1-Report	1-Administrative
2-Policy/bill/guide/strategy	2-Criminal
3-Study/research/survey	3-Civil
4-Governmental response	4-Employment
5-Judgement	5-Healthcare
6-Expert evidence	6-Data protection
7-Judge statement	7-Business
8-Video	8-Competition
9-Podcast	9-Consumer
	10- AI regulation
	11- Not specified
C) Source of Document	D) Type of Challenge
1-UK Government	1-Lack of transparency
2-Case	2-Delay
3-Expert evidence	3-Difficult to provide evidence
4-Institutions/organisation	4-Disclosure issue
E) Type of Information	5-Limited access to information
1-Challenges	6-Lack of explanation
2-Response	7-Regulatory gap
3-Both	8-Difficult holding accountability
	9-Lack of authority
	10-Limited redress
	11-Interpretation difficulties
	12-Expertise gap
	13-Cost
	14-Procedural issues
	15-Time limit in judicial review
	16-Litigation cost

This thesis aims to reach valid and defensible conclusions based on detailed analysis with a view to achieving the identified research objectives. This research collected 53 documents from the different

channels mentioned above, applying the rule of ‘Selecting Observations’ mentioned by Lee Epstein and Gary King:

‘1- identify the population of interest; 2- collect as much data as is feasible; 3- record the process by which data come to be observed; and 4- collect data in a manner that avoids selection bias.’⁴¹⁵

After applying these rules to the documents selected, the analysis will answer the questions of ‘what are the challenges of review ADM cases and grievances’. The documents for this purpose will be divided into two categories: (1) documents determining the problems of review faced by judges and other reviewers; and (2) documents including responses and suggested solutions about the problems. Chapters 6, 7, 8, and 9 aim to provide lists of answers to the research questions of what ADM judicial review challenges do the reviewers face, and what are the responses to the challenges from different aspects of law and different jurisdictions.

The selection of sources was initially done by looking at regulatory websites on which reports about AI should be submitted, such as government reports and parliamentary committee sessions with experts. From there, private institutions mentioned in government files as entities concerned with AI topics were searched, such as the Alan Turing Institute, PLP, and ICO. These entities were found to fund reports and studies for the government. Additionally, the cases related to ADM were searched for by typing the names of ADM systems known to have caused problems for the public and used by different bodies. Search engines on websites (such as LexisNexis, Hein online, and Casemine) were used as a search tool to limit the searching process of the related cases. From the judgment files, it

⁴¹⁵ Lee Epstein and Gary King, ‘Empirical Research and The Goals of Legal Scholarship: A Response’ (2002) 69 University of Chicago Law Review 1-209.

assisted to access the judges' statements and experts' evidence documents which crucial in determining the issues and the challenges.⁴¹⁶

To provide an insight into the nature of the main sources of the collected documents, a brief description of the collection types is necessary.

- **Government collection**, such as reports from the Gov.UK publications, the Centre for Data Ethics and Innovation, and the Government's Central Digital & Data Office and the ICO (an independent public authority appointed to regulate information issues in the public interest), highlight the ethical considerations and practical challenges of implementing and overseeing ADM systems within the public sector. Parliamentary documents, including those from Select Committees and the House of Commons, reveal concerns regarding accountability, transparency, and bias in ADM, particularly within the justice system.
- Advocacy groups in **private institutions collection**, such as the PLP and the Ada Lovelace Institute, contribute policy papers and reports that emphasise the potential harm due to the lack of transparency and accountability of ADM. Documents from independent institutions were included in the collected documents, such as those from the Alan Turing Institute, which offer expert evidence and ethical advisory reports, emphasising the technical complexities involved in auditing and reviewing ADM systems.
- The **legal cases** demonstrate issues in the real-world ADM implementations and the practical application of legal principles. They also reveal **judges' experiences** regarding ADM-related challenges concerning review, and their impacts on the rights of individuals. These cases often include **expert evidence** and responses to the judges that highlight the lack of transparency

⁴¹⁶ The documents were collected through a detailed search and review of the websites of the sources of these files. Since the main question is to define the types of challenges in reviewing ADM, it is helpful to review the judgements files published on the website (the court and Tribunal), the website of the UK government (Gov.UK), and the websites of Parliament, and Select Committees. Additionally, a careful search was undertaken on the websites of the institutions concerned AI and ADM applications and their effects on people, such as Public Law Project and Alan Turing Institution.

in ADM systems, with even technical experts struggling to understand ADM internal workings due to 'black box' issues as explained in the next chapter.

The rationale for the use of governmental reports and documents, cases, and expert evidence is that they highlight the challenges in reviewing and addressing ADM issues concerned in this chapter. A targeted typology is derived by empirically identifying related challenges from real-world cases and reports that reflect actual reality. The documents selected for the analysis need to demonstrate the types of the challenges that most administrative justice scholars appear to be making an effort to identify and solve. For example, some scholars have attempted to examine the barriers that courts are likely to face in reviewing evidence. Most notably, Tomlinson and others identified key practical challenges limiting any effective judicial review functions, such as the opacity of AI and algorithmic technologies and time limitations to apply for a judicial review.⁴¹⁷ Cobbe also argued that producing evidence within the statutory three-month time limit would constitute a significant obstacle (due to the limited time specified), even if demand for judicial review seems set to increase.⁴¹⁸ Aside from the identified challenges, some of the documents propose a range of potential solutions to address the challenges of ADM review from different areas of law, as discussed in Chapter 6. These solutions vary widely, which reflects the complexity evolution of ADM systems, and the policy and legal debates surrounding them.

On the other hand, some documents were excluded in the process of gathering the collected documents due to not being directly relevant to the scope of this study. These included documents and studies relating to the challenges associated with the use of ADM. These challenges faced by ADM decision makers themselves, rather than judges or other reviewers of ADM decisions such as errors, bias, and privacy issues in the applications of ADM (as explained in Chapter 3). The review presented

⁴¹⁷ Tomlinson, Harkens and Sheridan (n 11).

⁴¹⁸ Cobbe (n 192).

in this chapter excluded these documents, opting instead to focus on documents and cases relevant to the object of this chapter and exploring the challenges associated with review ADM.

4.4 Presenting the Information through Text and Tables

Thematic analysis was applied to analyse the gathered documents (as described below). After the initial data collection of the types of ADM challenges of review extracted from the documents and texts, information was presented in text and tables. The overall steps were not only to analyse the challenges of RP, but to map out a typology from the sources of the highlighted texts. By using this method, all identified types of challenges were recorded in coding tables in order to carry out a rich, detailed analysis for the typology. The latter was designed to capture and present each document type, source, area of law, and types of observed or mentioned challenges (see Table 4.1). The content and the codes were retrieved and organised in tables to determine the themes of the concerned issues in this chapter. The following section describes how the thematic analysis was applied using numbered codes, while Table 4.2 shows examples of coding documents from the government documents collection.

Table 4.2 Examples of government documents collection

No.	Document	Source	Type of Document	Area of Law	Challenge
GV1	AI Barometer Report	1	1	2,5,7	1, 6, 8, 12,
GV2	Auditing algorithms: the existing landscape, role of regulators and future outlook	1	3	8, 9	1, 7, 10

4.5 Applying Thematic Analysis

Thematic analysis is flexible and was regarded as the most suitable method for this study. To use thematic analysis for analysing documents, steps should be conducted in order as explained below. Moreover, thematic analysis is typically the default approach used in deductive research using in-depth expert interviews, as well as in some types of systematic reviews. Although systematic reviews have mainly been used to create quantitative studies, there is support for their application over qualitative studies.⁴¹⁹

However, there are differences between the two approaches in terms of purpose, processes, and data resources. While thematic analysis aims to generate themes of collected information observed from qualitative data, systematic review is a method of comprehensively summarising the results of literature on a specific topic.⁴²⁰ A systematic review adheres to a strict protocol of predefined selection criteria to select relevant research and studies.⁴²¹ In contrast, the significance of the thematic analysis is that it provides a flexible technique of qualitative data analysis by in-depth examination and interpretation of patterns and themes of meaning in texts from documents.⁴²² It enables its application across various theoretical frameworks, official documents, reports, videos, podcasts and research paradigms.⁴²³

In this research, the thematic patterns identified from reading and reviewing the documents were assigned codes, which were then counted and compared across a dataset (in this case, documentary evidence) in order to identify emergent themes (areas of themes among repetitive codes).⁴²⁴ In legal

⁴¹⁹ Mark Petticrew and Helen Roberts, *Systematic Reviews in the Social Sciences : A Practical Guide* (John Wiley & Sons 2006) 87.

⁴²⁰ William Baude, Adam Chilton and Anup Malani, 'Making Doctrinal Work More Rigorous: Lessons from Systematic Reviews' (2017) 84 *University of Chicago Law Review* 1, 37.

⁴²¹ Karen Chapman, 'Characteristics of Systematic Reviews in the Social Sciences' (2021) 47 *The Journal of Academic Librarianship* 102396.

⁴²² Virginia Braun and Victoria Clarke, 'Conceptual and Design Thinking for Thematic Analysis' (2022) 9 *Qualitative Psychology* 3.

⁴²³ Virginia Braun and Victoria Clarke, 'Using Thematic Analysis in Psychology' (2006) 3 *Tandfonline* 77.

⁴²⁴ Lisa Webley, 'Qualitative Approaches to Empirical Legal Research' in Peter Cane and Herbert M Kritzer (eds), *The Oxford Handbook of Empirical Legal Research* (Oxford University Press 2012) 926–950.

research, this method is applicable in many contexts, such as analysing legal issues in published reports, policy documents, expert statements or judgements.⁴²⁵

A theme is defined as an abstract entity that reports meaning and identity to a group of texts and their different expressions and effectively unifying the texts into one meaning.⁴²⁶ According to experts on thematic analysis, codes are the smallest analytical units that capture significant features of the data related to the research question; they serve as foundational elements for themes, which represent broader patterns of meaning based on a central organising concept or a unified core idea.⁴²⁷ The codes and themes provide a framework for the analytical process to provide a typology of the challenges in RP that will be found by this method.

This section describes in detail how the thematic analysis was applied and carried out. First, it presents the steps and process of conducting thematic analysis based on the thematic analysis explanation by Braun and Clarke (Table 4.3).⁴²⁸ .

⁴²⁵ Ibid.

⁴²⁶ Lorelli S Nowell and others, 'Thematic Analysis: Striving to Meet the Trustworthiness Criteria' (2017) 16 *International Journal of Qualitative Methods* 1, 12.

⁴²⁷ Victoria Clarke and Virginia Braun, 'Thematic Analysis' (2017) 12 *The Journal of Positive Psychology* 297.

⁴²⁸ Virginia Braun and Victoria Clarke, *Successful Qualitative Research: A Practical Guide for Beginners* (SAGE Publications Ltd. 2013) 202-203.

Table 4.3: Braun and Clarke's strategies of thematic analysis⁴²⁹

Stage	Thematic Analysis	Description
1	Transcription	Turning audio data into written text (or transcripts) by writing down what was said and how it was said so the data can be systematically coded and analyzed.
2	Reading & Familiarization	Reading and re-reading the data to become intimately familiar with the content (i.e., immersion); analysis begins by noticing things of interest that might be relevant to the research questions.
3	Coding (Selective & Complete)	Identifying aspects of the data that relate to the research questions; can involve <i>selective coding</i> where only material of interest is coded or <i>complete coding</i> where the entire dataset is coded.
4	Searching for Themes	Identifying salient features that capture something important about the data in relation to the research question; may represent some level of patterned response or meaning within the dataset.
5	Reviewing Themes	Determining whether candidate themes fit well with the coded data; themes should tell a story (not necessarily <i>the story</i>) that "rings true" with the data; essentially represents quality control in relation to the analysis.
6	Defining & Naming Themes	Defining themes by stating what is unique and specific about each one; useful because it forces researchers to define the focus and boundaries of the themes by distilling to a few short sentences what each theme is about.
7	Writing the Report	Writing the report by selecting compelling, vivid examples of data extracts, and relating them back to the research question and literature.

Braun and Clarke (2013), pp. 202–203.

As the archetypal "Stage 1" displayed in Table 4.3 was not necessary in this study (as the documents were already in written form, rather than transcribing audio interview data), "Step 1" of *this* study was becoming familiar with the collection. This step involves reviewing the complete collection of documents multiple times before beginning to assign codes to the chosen texts.⁴³⁰ During this phase, the important and relevant observations and interpretations are recorded. The first screening of the documents showed some repetitive ADM review challenges relevant to this research, which were helpful in developing the first stage of coding. The selected texts were characterised by the direct and indirect ADM challenges of RP mentioned within the collected documents themselves. In the stage of selecting related texts, the search feature within the document was used by entering the terms that refer to the main purpose of this chapter. The search process in each analysed document used words such as:

⁴²⁹ Ibid.

⁴³⁰ Nowell and others (n 431).

Accountability; Ambiguity/ opacity/ vagueness/ vague; Black box; Challenge a decision/ contest; Clarity/ not clear; Cost; Court/ tribunal/ ombudsman; Difficult to understand/ I cannot understand/ understandable; Disclose/ disclosure; Evidence; Expertise/ expert; Explainability; Hard/ difficult to prove; Judge/ reviewers; Judicial review; Oversight/ assess; Transparency.

After searching for these keywords, texts were selected for review according to direct and indirect types of challenges mentioned throughout the texts. The relevant texts are showed in the data extraction table (see the Appendix). Each text was labelled with one or more types of associated challenge. For the specific purpose of this chapter, the texts selected illustrated a broad consensus focusing on ADM challenges of RP, such as lack of transparency and accountability. For example, it was observed that most reported cases and challenges were about the opacity and lack of explainability of many algorithms (i.e., the black box issue). These issues are also the source of many additional challenges for reviewers to understand how decisions are made, and to assess them (e.g., disclosure problems). Additionally, the cost and complexity of legal challenges are also frequently highlighted as barriers to access to justice, especially for individuals or groups with limited resources, who are likely to be victims of administrative injustice.

In Appendix 1, the documents have been coded and categorized based on specific criteria for easy reference throughout the discussion. Each document has been assigned a unique serial number to facilitate this process. For instance:

- The first report in the government documents collection is labelled as [GV1], the second report as [GV2], and so on.
- Expert evidence documents start with the serial number [EX1] and continue sequentially.
- Case and judgment documents are assigned serial numbers [CJ1, CJ2, CJ3, etc.].
- Documents from private institutions are numbered as [IN1, IN2, etc.].
- Judges' statements are given serial numbers [JS1, JS2...]

In the second phase, the data was coded manually. The types of challenges in RP have been characterised in codes, as shown in Table 4.4. It shows a full list of possible codes for each of the possible challenges. In order to develop the codes, the selected texts were re-read to see how the codes would characterise the challenges in RP. The list of codes includes the type of the challenges, description of the codes, as well as the extracted texts. The second round of coding reduces duplicate or overlapping codes, works on a clear definition of the meaning of each code, and clarifies the terms of use of the codes.

The codes were developed by selecting the labelled challenges of RP in the text previously identified in the first step. For example, in [CJ5] *Johnson and others v. SSWP*⁴³¹, it was observed that the judges noted several challenges in addressing this case. One of which was the difficulty of providing redress for claimants. In the coding process, the text '*While the system was intended to be automated, as evidenced by Ms McMahon's testimony, this automation created complications in addressing specific issues that arose in the case*' comes under challenge code named '**limited redress**'. All codes and their descriptions are shown in Table 4.4.

⁴³¹ *Johnson and others v. SSWP* (n 344).

Table 4.4: Coding for mentioned challenges

No.	Code	Description
1	Lack of transparency	Black box and commercial sensitivity issues in algorithmic DM
2	Explainability	Opacity and lack of clarity in decisions and reasoning provided by tribunals/courts
3	Accountability	Difficult to hold accountability and determining the responsible party who can be blamed and sanctioned.
4	Regulatory gaps	Need to regulate AI and deficiencies in existing legal frameworks
5	Expertise gap	Lack of technical and legal expertise to adequately assess and regulate ADM in the AJs
6	Disclosure issue	Issues related to provide the court with data quality, completeness, accuracy, and timeliness of data provided to courts/tribunals
7	Access to information	Difficulty accessing information, data, and relevant documentation
8	Cost	High costs associated with challenging ADM decisions
9	Delay	Delays and inefficiencies in the process of challenging ADM decisions
10	Lack of authority	Lack of component authority to regulate, assess and oversee AI
11	Evidence	Difficulties in providing evidence to support claims of unfairness or inaccuracy
12	Time limit	3-month time limit in JR
14	Redress	Lack effective redress mechanisms
14	Interpretation difficulties	Complexity of the ADM systems, making understanding and challenge extremely difficult

4.5.1 Development of Themes

At this stage, the identified codes were organised into themes, developed by grouping the codes that reveal the most relevant and important ADM challenges in RP. Methodologically, grounded thematic analysis entails deriving deductive themes from codes pertinent to the research question, as described

by Braun and Clarke.⁴³² Practically, this was implemented by the researcher reading and re-reading the primary sources repeatedly, and considering them in the context of existing legal research. During this process, the researcher was able to identify recurrent concepts and patterns across sources. These were assigned codes, which were subsequently grouped under themes. The recurrent codes discerned from the documentary analysis thus led to identifying and validating the emergent themes.

This process led to the identification of three main themes, comprising 16 codes derived from the analysis of the primary data, as shown in Table 4.5. For example, “Lack of Transparency” was identified as the first theme of ADM challenges in RP; this was also the name of one of the constituent codes (“lack of transparency”), alongside “explainability”, “accountability”, “disclosure issue”, “access to information”, and “Procedural delays”). Similarly, the “Expertise Gap” theme encompassed the codes “expertise gap”, “cost”, and “Procedural delays”, while the “Regulatory Gap” theme included “regulatory gaps”, “time limit”, “litigation cost”, “redress”, “lack of authority”, “access to evidence”, and “interpretation difficulties”.

⁴³² Clarke and Braun (n 432).

Table 4.5: Emergent themes

No.	Code	Theme
1	Lack of transparency	Lack of Transparency
2	Explainability	
3	Accountability	
4	Disclosure issue	
5	Access to information	
6	Delay	
7	Expertise gap	Expertise Gap
8	Cost	
9	Delay	
10	Regulatory gaps	Regulatory Gap
11	Time limit	
12	Litigation cost	
13	Redress	
14	Lack of authority	
15	Access to Evidence	
16	Interpretation difficulties	

The final review confirms that all themes are well-defined and related to the research question.⁴³³ This involves summarising each theme and giving it a name that accurately identifies a type of challenge. The final themes in this analysis, as summarised in Table 4.6, provide a thorough analysis of the ADM review challenges, serving as the basis for establishing the typology that this study intends to develop.

⁴³³ Nowell and others (n 431).

Table 4.6: Summary of themes

No.	Code	Theme	Examples
1	Lack of transparency	Lack of Transparency	[CV10] 'Achieving full technical transparency is difficult, and possibly even impossible, for certain kinds of AI systems in use today.'
2	Explainability		[EX5] 'Despite the GDPR's intent for a 'right to explanation,' it practically offers a 'right to be informed,' which is limited by trade secret protections'.
4	Disclosure issue		[EX1] 'Development and operation of ADM tools through requests under the Freedom of Information Act 2000 (FOIA), both the Home Office and the DWP often refuse disclosure.'
5	Access to information		[EX6] 'I cannot comment on whether AFR Locate has a discriminatory impact as I do not have access to the datasets'
6	Procedural delays		[CJ1] 'The Post Office disclosed crucial documents, including a large number of PEAKs (Problem Event Analysis and Knowledge) and KELs (Known Error Logs), very late in the process.'
7	Expertise gap		Expertise Gap
8	Cost	[IN7] 'High Cost of contesting a decision that need to hire an expert and request for information.'	
9	Procedural delays	[JS2] 'The judges spend significant time deciphering these regulations and their implications.'	
10	Regulatory gaps	Regulatory Gap	[IN11] 'Existing law is unhelpful in assessing the procedural fairness of ADM/ASDM systems Under the common law of judicial review'.
11	Redress		[GV3] 'Insufficient avenues for redress for individuals negatively impacted by algorithmic systems.'
12	Lack of authority		[IN2] 'Existing review bodies such as the Parliamentary and Health Service Ombudsman lack the powers to initiate investigations'
13	Evidence		[IN12] 'Claimants face a range of barriers, including being dissuaded from making a challenge, being required to provide documentation'
14	Interpretation difficulties		[CJ5] 'The primary challenge was determining the proper interpretation of the regulations,
15	Time limit		statutory three-month time limit in judicial review
16	Litigation cost		[GV4] 'High costs of litigation in seeking redress.'
3	Accountability		[GV1] 'Lack of clear accountability for who is legally responsible'

4.5.2 Report

Broadly speaking, UK administrative justice institutions' traditional models of redress against administrative grievances include mechanisms such as judicial review by courts, tribunal appeals, internal administrative review systems, and ombudsmen, as explained in Chapter 1. The discussion in this chapter involved creating a typology of the challenges faced by those institutions when reviewing or redressing cases involving ADM derived from the thematic analysis. It can be noticed that the majority of the published cases and documents mainly focused on the role of courts and judicial review rather than other institutions (tribunals and ombudsmen). Judges rarely included in their judgments a self-assessment of their limited capacities to review opaque technologies or assess expert evidence, such as the way in which AI and algorithms are trained on datasets.

A few relevant cases have been reviewed by tribunals, but none have been investigated by the ombudsman, while the latter may be better in some cases in solving such issues as quasi-regulatory or adjudicative bodies. This is because of the lack of judicial training in courts, the lack of regulatory guidelines, limited procedural times, and other barriers, while the ombudsman has the role of investigating claimed decisions from their internal process until issuing them. Similarly, one body in the collected documents is the UK ICO, which is responsible for overseeing information rights in the public interest, and data privacy and has quasi-regulatory and adjudicative functions and may hear disputes.

The thematic analysis helped to deduce three main themes and identified the challenges that the reviewers face while reviewing and addressing ADM issues and cases. As noted before, each theme is characterised by a specific type of challenge. This section provides a detailed description of all of the identified challenges of RP in ADM for each emergent theme. The themes here are presented and summarised with example quotes from selected texts. The discussion also includes an overview of the comprehensive findings derived from the thematic analysis. Moreover, to achieve the main purpose

of this chapter, the discussion aims to establish the typology of ADM challenges in RP from the themes as explained below.

Documents in the Government collection (see Appendix 1) seem to be more comprehensive than other groups in verifying the ADM challenges of RP. This may be because these files are based on a set of data, cases and reports submitted to the government in different areas of law, which are combined into unified reports. Additionally, the government reports are issued based on consultations from stakeholders on a specific issue, whereby the government collects all consultations and responds to them in one file. For example, for the 'AI Barometer 2020' report [GV1], over 100 experts from across five key UK sectors (Criminal Justice, Financial Services, Health & Social Care, Education and Public Sector) informed the government about the most pressing opportunities, risks and governance challenges associated with AI and data.

All experts who submitted evidence to the government (in the government collection) and to the judges (in the cases collection) stressed their views that all ADM systems have been developed based on black box codes and data. This prevents accessing information in the internal design of the systems and their data. Therefore, from the (cases collection), it appears not possible for the experts to provide judges with answers to their questions about whether the system was wrong, or if the data was biased, such as in *PLP v. ICO in (2023)*.⁴³⁴

The document collection also includes live videos and podcasts. These sources highlighted the ADM challenges of review discussed under the themes in this chapter. These types of documents enhance the credibility of the analysis and discussion as they provide insights from reality and official live sources. One example is the live recorded video of *Pantellerisco & others v. The SSWP [CJ4]*, published by the Court of Appeal on their YouTube channel.⁴³⁵

⁴³⁴ *Public Law Project V The Information Commissioner (2023)* EA/2022/0228.

⁴³⁵ Court of Appeal, 'Pantellerisco & Others (Claimant/Resp) v Secretary Of State for Work and Pensions (Def/Appellant) - YouTube' (15 June 2021).

The results from conducting the thematic analysis of the ADM challenges in RP can be classified into two processes. Firstly, the challenges primarily affecting judges and AJs in general, which include (as shown in Table 4.6) the three themes discussed above (transparency and explainability, legal and regulatory gap and technical expertise gap). Inconsistent transparency practices exist in accessing information and dealing with varying levels of transparency across different organisations and cases. Judges also face the challenges of uncertainty in the legal basis while seeking to interpret and apply laws to ADM. The difficulty in identifying the responsible party for algorithmic bias or error in complex systems also comes under the regulatory gap challenges. Based on the above analysis, the most common issue in ADM judicial review is the lack of expertise in the judicial system and a limited understanding of the technical aspects of ADM within the judiciary.

Secondly, there are challenges primarily facing people affected by ADM decisions, classed as shown in Table 4.6. The **lack of transparency and access to information by refusing to disclose information directly affects** people's rights to have an explanation about the decisions. For example, in *Public Law Project V. The Information Commissioner [CJ2]*, the PLP appealed the decision by the Information Commissioner, which upheld the HO refusal of freedom of information request.⁴³⁶ The complainant requested information about the model's criteria, including how nationality was considered in the Sham marriage tool. However, the Home Office (HO) refused to fully disclose information related to a sham marriage triage model.

This issue also affects their ability to provide evidence in responding to a judicial review claim. Similarly, many of the collected documents indicate that the people are struggling in understand the reasons and the rationale for automated decisions, because of their limited awareness about ADM technology; indeed, in some cases they do not even notice (or are not adequately informed) that a decision was issued by an ADM system.

⁴³⁶ *Public Law Project V The Information Commissioner (n 40)*.

Finally, in the process of collecting the documents, it was noted that the majority of the published reports and policy discussions covered the issues of ADM applications and the substantive use of ADM in the DMP. Additionally, most cases decided in the UK are centred on the more established question of privacy rights, the scope of judicial review concerning legality, or the rules of standards applicable to ADM. However, it appeared from most collected documents that the ADM challenges in RP are based on complex and opaque systems, which suggests the need to develop the role of judicial review in ADM cases.

It is also clear that the collected documents consistently agreed that ADM should be subject to reasoning and transparency requirements because it generates substantive decisions affecting the rights of people or legal quality. However, analysis of the documents showed that the published data dealing with the main question of this research (i.e., about the ADM challenges in RP in AJs) receive much less consideration in all areas of law. Additionally, ADM challenges in RP are not clearly reflected in some cases, but could be observed from the provided experts' evidence.

Generally, most documents are concerned about the procedural issues of judicial review, such as a lack of metrics for assessing and evaluating ADM, time limits, and, more significantly, the need for expert evidence.⁴³⁷ Moreover, there are some challenges raised by scholars about how courts have or should determine their competencies, when the decisions are based on codes and technologies that are opaque or not understandable to them.⁴³⁸ Similarly, due to the opacity and transparency issues, some sources have heavily focused on the challenge of when AJs lack expertise to assess the sufficiency of reasons provided, or the level of disclosure required.⁴³⁹ Some analysts have stated that

⁴³⁷ Williams (n 12).

⁴³⁸ Igor Gontarz, 'Judicial Review of Automated Administrative Decision-Making: The Role of Administrative Courts in the Evaluation of Unlawful Regimes' (2023) 2023 ELTE Law Journal 151.

⁴³⁹ Michèle Finck, 'Automated Decision-Making and Administrative Law' in Peter Cane and Other (eds), *The Oxford Handbook of Comparative Administrative Law* (Oxford University Press 2020) P 655-676, see also, Richard Moorhead, Karen Nokes and Rebecca Helm, 'Post Office Scandal Project: Issues Arising in the Conduct of the Bates Litigation' (2021) Evidence Based Justice Lab Available at <https://evidencebasedjustice.exeter.ac.uk/wp-content/uploads/2021/08/WP1-Conduct-of-the-Bates-Litigation-020821.pdf>.

the issue of an expertise gap in the AJs causes other review challenges, such as costs and delays.⁴⁴⁰ By exploring academic sources from different areas of law, some have demonstrated problems such as data gap, limited competent authority and difficulties in holding accountability to ADM systems where there is no human intervention.⁴⁴¹

Based on the survey of the existing case, few have addressed how the rise of ADM affects the role of the AJs in fields outside areas of administrative law. For example, few judicial review cases have been found in civil and commercial law compared to more tested areas in the field of public law. The potential reason for this may be that the element of judicial review of decisions is more adapted in public law. Therefore, addressing potential review challenges seems, as yet, uncomprehensive and incomplete in all laws in the UK. However, there are a few cases in criminal, civil, intellectual property, and business law that can be considered here for identifying the types of challenges and filling the gap of the solutions needed in this study. For example, the *(Issues arising in the Conduct of the Bates Litigation)* about *Bates v Post Office* examined concerns raised about the decision that affected more than 500 employees. Issues such as disclosure problems, costs, and expert delays and misconduct in evidence arose as serious concerns in reviews of decisions in civil courts.⁴⁴²

Table 4.7 lists some existing and decided cases in the UK AJs that show the challenges that they faced in their review and address these cases. The relevant cases demonstrated clear gaps regarding regulations and standards of review and the delay in response to the challenges. For example, the JCWI challenge against the Home Office's use of an automated streaming tool that filters visa applications based on nationality was based on claims that the system was discriminatory and unlawful. The JCWI brought a judicial review in the High Court, but the claim was dismissed. Although the Home Office suspended the use of the streaming tool in August 2020, and the JCWI has not yet

⁴⁴⁰ Matt Davies and Michael Birtwistle, 'Regulating AI in the UK' Report (2023) Ada Lovelace Institute Available at <https://www.adalovelaceinstitute.org/report/regulating-ai-in-the-uk/> .

⁴⁴¹ Chauhan (n 7).

⁴⁴² Moorhead, Nokes and Helm (n 444).

announced whether it will appeal, it appears that the issue has still not been addressed for people affected since 2019.

Table 4.7: Cases table

Case ID	Case Name	Area of Law	System	Challenges Mentioned
CJ1	Bates v. Post Office (2019)	Civil liability	Horizon (Fujitsu sales accounting system)	Delays in disclosure, difficulty accessing information, lack of transparency, disclosure problems
CJ2	Public Law Project v. Information Commissioner (2023)	Administrative law	Home Office sham marriage triage model	Disclosure issues, limited access to information
CJ3	R (Bridges) v South Wales Police	Criminal Law	Automated Facial Recognition (AFR)	Regulatory gap, lack of transparency and explanation
CJ4	Pantellerisco & others v. Secretary of State	Administrative Law	Universal Credit (UC) system	Lack of transparency, lack of explainability
CJ5	Johnson and others v. SSWP (2019)	Administrative Law	Universal Credit system	Lack of explanation, regulatory gap, lack of transparency
CJ6	Ofqual v. ICO	Administrative law	A-level grades algorithm	Lack of transparency, disclosure issues, expertise gap
CJ7	Thaler v. Comptroller-General of Patents, Designs and Trade Marks	Business / Intellectual Property / Patent Law	the legal status of inventions created by AI systems	Regulatory Gap
CJ8	Pa Edrissa Manjang & other v. Uber	Employment Law	Face Recognition Algorithm	lack of explainability, Delay

In the few cases that have been brought before the UK courts, the rulings did not focus on issues of law, rather the focus was on procedural and other barriers faced by courts in carrying out their review and adjudicative functions. This contributed to not comprehensively getting all the solutions that judges need in practice while reviewing ADM in the UK.

4.6 Suggested Typology of ADM Challenges in RP

A clear typology of ADM challenges of review is important because it breaks down a broad issue into specific, useful categories. This also allows for the development of distinct legal and technical responses. Classifying these challenges will help in building theories by highlighting patterns that enable researchers in further researches to create hypotheses about causes, institutional weaknesses, and possible judicial pathways. For policymakers and judges, a clear typology highlights the most frequent legal or regulatory gaps that need reform. Additionally, by providing a shared vocabulary that connects legal issues to technical details, this typology aims to encourage effective collaboration among legal scholars, social scientists, and technologists. This collaboration enhances both the empirical strength and practical relevance of research on ADM in administrative justice.

Various forms of qualitative research commonly use thematic analysis, as it allows for in-depth exploration of the data.⁴⁴³ However, after applying a thematic approach, the specific and in-depth ‘meaning’ of each theme may need to be elaborated with more scrutiny, which is why some qualitative researchers prefer to add another in-depth meaning of the patterns and themes, especially for fields like law.⁴⁴⁴ One way of exploring the meaning of the themes is through the creation and use of typologies.⁴⁴⁵ A typology is ‘formed by grouping cases or participants into different types on the basis of their common features, with consideration of how each theme represents a particular pattern of features’.⁴⁴⁶

In this study, determining the correct typology of ADM challenges in RP is grounded on the thematic analysis discussed above. There are three fundamental aspects/types of ADM challenges in RP that

⁴⁴³ Emily Stapley, Sally O’Keeffe and Nick Midgley, ‘Developing Typologies in Qualitative Research: The Use of Ideal-Type Analysis’ (2022) 21 *International Journal of Qualitative Methods*.

⁴⁴⁴ *Ibid.*

⁴⁴⁵ *Ibid.*

⁴⁴⁶ *Ibid.*

have emerged so far. The basic typology arising from the analysis undertaken is shown in Table 4.8 with an in-depth explanation of each theme and group following.

Table 4.8: Overview of basic typology

Typology Category	Challenges Primarily Affecting Judges	Challenges Primarily Affecting Individuals	Overlapping Challenges
I. Transparency & Explainability	Problems of disclosure. Insufficient explainability. Access to information.	Limited access to information. Difficulties in obtaining evidence.	Lack of transparency, insufficient explainability.
II. Legal & Regulatory gap	Uncertainty in the legal basis. Lack of clear accountability (determining responsible parties). Applying existing legal frameworks to ADM. Insufficient redress mechanisms.		
III. Technical expertise	Lack of expertise (in the judicial system). Delay in understanding ADM. Cost to hire external experts.	Lack of technical awareness. Delay in providing evidence and waiting for outcomes. Cost in seeking legal support from experts.	Lack of technical expertise. Delay. Cost.

4.6.1.1 Type 1: Lack of transparency

Based on the analysis above, this theme refers to insufficient transparency about the information of the data used to train the AI algorithms that operate the processes in ADM systems processes, and the need for a clear and understandable explanation of DM rationale. It also refers to a lack of fair

access to relevant and accurate data and an explanation of how ADM systems work for all parties involved. Most of the collected documents from all sources in Appendix 1 mentioned the lack of transparency as a main source for other challenges, as shown in Table 4.6. The vast majority (90%) of the selected texts in the document collections repeatedly cited and referenced this issue.

Based on the overall data from the document collections for this chapter, the **limitations on access to information and transparency** significantly hinder the ability of reviewers to evaluate ADM. Without mandatory transparency, individuals and judges appear challenged to understand how automated decisions were made, as well as how ADM works, that affect them. This lack of information not only restricts the public's ability to understand the systems but also limits the parties' capacity to **provide information for an evidence** in judicial review. For example, in *FO v SSWP (UC) [2022] UKUT 56 (AAC)*, the DWP's submission about the automated decision made by UC ADM system to the FTT was insufficient because of the absence of key documents, like the original UC automated claim and the initial claimant commitment document.⁴⁴⁷ The case submitted to UT focuses on applying the correct legal test by FTT which relied on the DWP's claims without sufficient corroborating evidence. The UT granted the appeal, stating the FTT make a mistake by not reviewing all relevant documents and misunderstanding the claimant's case. The UT also determined that the FTT incorrectly applied the law concerning the termination of UC awards in the presence of existing commitments. The DWP's representative agreed that the FTT's finding was flawed and that the DWP's response lacked crucial evidence, including the claimant's commitment document and documentation showing the proper procedure for setting new commitments.⁴⁴⁸ Furthermore, the [GV1] report mentioned above concluded that:

⁴⁴⁷ *FO v Secretary of State for Work and Pensions (UC) [2022] UKUT 56 (AAC)*.

⁴⁴⁸ *Ibid.*

‘It is difficult for people to understand or challenge decisions made or informed by algorithms because of their ‘black box’ nature or commercial confidentiality regarding their functionality.’ [GV1]

‘It is difficult for supervisory bodies to interrogate the accuracy and robustness of AI and data-driven systems used within financial services (e.g., in credit decisions) due to a lack of transparency and their ‘black box’ nature.’ [GV1].⁴⁴⁹

4.6.1.2 Type 2: Regulatory gap

This theme means insufficient existing legal frameworks to address unique challenges related to automated decisions. The main characteristic of the documents collected in this theme is the frequent reference to a **lack of clear accountability, lack of competent authority, limited types of redress, and interpretation difficulties**. Accountability requires adequate avenues for people to challenge ADM systems, together with effective enforcement mechanisms and the possibility of sanctions.

An increasing reference to the insufficiency of AI and ADM regulation can be observed in all types of the collected documents. Scholars and academics from different legal aspects have increasingly discussed the effects and challenges of the absence of clear AI regulations on the administrative justice RP. Administrative justice scholars, Joe Tomlinson, Katy Sheridan, and Adam Harkens have indicated that:

‘ADM relies on personal data (which will be in most systems used in public administration to make decisions about individuals), the General Data Protection Regulation and the Data Protection Act 2018 require a variety of information to be disclosed. This includes the right for information to be provided.’⁴⁵⁰

⁴⁴⁹ GOV.UK ‘CDEI AI Barometer ‘ (GOV.UK, 23 June 2020) <<https://www.gov.uk/government/publications/cdei-ai-barometer/cdei-ai-barometer>> accessed 19 January 2025.

⁴⁵⁰ Tomlinson, Harkens and Sheridan (n 11), 757.

Nevertheless, the scholars stated that there are limitations to these protections, raising questions about whether it is feasible to receive a comprehensive explanation of an ADM system.⁴⁵¹ Under this theme, the analysis revealed the challenges that resulted from the regulatory gap as discussed below.

Ambiguous or unclear regulations led to **challenges in interpreting** the legal requirements. In Judge Wright's statement, the document repeatedly highlights the complexity and intricacy of the UC regulations, specifically concerning earned income calculations (regulations 54 and 61). The judges spent significant time deciphering these regulations and their implications, and the **difficulty in applying and interpreting** the law was clearly demonstrated. The court's own description of the reasoning as 'compressed' further highlights this issue.

Another example from the documents under the theme of regulatory gap is demonstrated in the report '*Auditing algorithms: The existing landscape, role of regulators and future outlook*' [GV2] published on the Gov.UK website, which focuses on the governance and auditing of algorithmic systems.⁴⁵² While it does not specifically address algorithmic judicial review, it does extensively discuss the broader issues of algorithmic accountability, transparency, and the need for auditing processes. The report notes the **insufficient avenues for redress** for algorithmic systems and that the current algorithmic audit landscape **is largely unregulated**.

4.6.1.3 Type 3: Expertise gap

The collected documents show that this theme illustrates that AJs lack the technical expertise to assess and review complex algorithmic evidence. It is helpful to begin analysing this theme by examining the real situation in AJs. Therefore, this theme will initiate the discussion by looking at what judges and reviewers have expressed about the lack of knowledge concerning ADM systems. In this context, Judge Wright stated in [JS2] that the extensive analysis and discussion of technical legal

⁴⁵¹ Ibid.

⁴⁵² Forum Digital Regulation Cooperation, 'Auditing Algorithms: The Existing Landscape, Role of Regulators and Future Outlook' (2022), Gov.UK, Working Paper available [Auditing algorithms: the existing landscape, role of regulators and future outlook - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/auditing-algorithms-the-existing-landscape-role-of-regulators-and-future-outlook) accessed on 1 October 2025..

issues presented challenges due to the complexity of the UC system and the ambiguities in both the initial decision and the Court of Appeal's declaration.⁴⁵³ He added that the court **needed to extensively research** and consider nuanced aspects of multiple legal precedents to arrive at its conclusions. His statement emphasises a type of challenge under this theme that the court needs '**specialised knowledge**':

'The court's detailed analysis of regulations, legal precedents (Johnson, NCCL, Majera, etc.), and the overall intricacies of the UC system and the calculation methods suggests a requirement for **specialised knowledge to fully grasp** the matter.'⁴⁵⁴

Additionally, Lord Sales notes that challenges in the courts may arise from 'technical illiteracy,' as 'understanding algorithms **requires specialised skills,**' which most people do not have.⁴⁵⁵ He added that judges are not well equipped to assess or understand whether the system of automation relies on a defective methodology to analyse the data input into it, or which are too inflexible to account for differences in individual cases (such as in the *Johnson* decision and *HMRC v Tooth*).

Overall, from the documents collected, it can be observed that the expertise gap caused other challenges for both the court and the affected individual. The expertise gap within AJs exacerbates **delays** in the judicial review process. The need for expert testimony to understand complex algorithmic evidence significantly lengthens proceedings, contributing to substantial delays. Furthermore, this same expertise gap drives up the **cost** of litigation. The requirement for expert

⁴⁵³ Judge Wright, 'Judge Write Statement in JN v Secretary of State for Work and Pensions (UC): [2023] UKUT 49 (AAC) [2023] AACR 7' (*Gov.UK*, 22 February 2023) <https://assets.publishing.service.gov.uk/media/6560d5e91fd90c000dac3ba3/_2023__AACR_7ws.pdf> accessed 11 September 2025.

⁴⁵⁴ *Ibid.*

⁴⁵⁵ Lord Sales, 'Information Law and Automated Governance' (2023) *UK Supreme Court*, Keynote Address at Information Law Conference available [Information Law and Automated Governance L Sales keynote address Information Law Conference April 2023_4063da5bfe.pdf](https://www.supremecourt.uk/assets/supremecourt/2023/04/Information_Law_and_Automated_Governance_L_Sales_keynote_address_Information_Law_Conference_April_2023_4063da5bfe.pdf) ([supremecourt.uk](https://www.supremecourt.uk)) accessed on 4 October 2025.

evidence and testimony adds a considerable financial issue to legal challenges, making access to justice more difficult and potentially deterring individuals from pursuing necessary reviews of ADM.

What supports this argument is the Alan Turing Institute's written evidence to the House of Commons' Science and Technology Committee [EX5]. It cautioned about 'the **financial burden** a citizen may have to undergo in hiring the right type of expert to support their challenge.' The BILL report also raised the causes of the expertise gap while contesting automated decisions, and highlighted that the need for expertise and knowledge leads to the **high cost** of contesting a decision that requires to hire an expert and request for information.

In general, a main observation has been noted from the above discussion that the courts may not understand expert testimony and evidence, even if they request it to fill the expertise gap in ADM judicial RP, due to combined challenges. These are the expertise gaps within the courts, besides the other challenges like a lack of transparency in the ADMP and a lack of explanation in responses by the respondents.

4.7 Chapter Conclusion

While traditional administrative law provides a framework for ensuring transparency, legality, and judicial oversight, the unique challenges presented by ADM necessitate clear classification and, therefore, clear solution mechanisms. This chapter gathered a diverse collections of texts, including from official government documents, private institutions concerned with administrative justice and technological aspects of ADM, and legal cases and analyses. Sourced from searches of academic databases and the internet, high-quality and important publications were selected that were within the real-life ADM decisions and concerns pertaining to review.

The resultant texts were thematically analysed, with coding and thematic clustering of identified themes, in order to identify three emergent thematic categorisations: "lack of transparency,"

“regulatory gap,” and “expertise gap.” Based on this analysis, the parameters of a new typology of ADM challenges was suggested, including “Transparency and Explainability,” “Legal and Regulatory Gap,” and “Technical Expertise.” While the emergent typology incorporates authentic and relevant issues pertaining to the scope of ADM review, it should be noted that there are inherent limitations when qualitatively selecting texts and the subjective analysis of qualitative data, which is an inherent limitation of documentary analysis.

Nevertheless, incorporating a wide array of legal sources and empirical data, this chapter has mapped out the multifaceted nature of challenges associated with ADM, highlighting the gaps in existing literature and case law. The qualitative documentary found that issues pertaining to the identified black box issue of ADM systems and the dearth of relevant technological expertise among most public servants and legal experts concerned with ADM redress can result in limited transparency and gaps in knowledge among justice institutions. Such issues can affect disadvantaged people, whether or not judges hear apportioned witnesses or experts. This is particularly exacerbated by the fact that legal proceedings in general are typically time-consuming, and prerequisite data cannot universally be rendered accessible on a timely basis.

This method has not only revealed the limitations of current administrative practices but also emphasised the need for a comprehensive typology to better address these challenges. By examining best practices from various fields, this research aims to propose viable solutions that can be adapted to enhance responsiveness of administrative law to ADM challenges of review.

Ultimately, advancing administrative justice in the era of technological transformation requires a concerted effort to bridge the existing legislative gaps and procedural solutions. Continued exploration and dialogue in this domain will be vital in fostering an administrative system that honours individual rights while navigating the complexities introduced by emerging technologies, which will be explored in the next chapters.

Chapter 5

Discussion of Theme One: Lack of Transparency in Administrative Justice

5.1 Introduction

The first chapter of this study described how administrative justice processes are divided into two parts: DMP and RP. Chapter 3 explained the effects that resulted from the use of ADM systems on the first part (DM), whereas the documentary analysis presented in Chapter 4 illustrates that there are challenges faced by reviewers when addressing ADM issues, which directly and indirectly affects the second part of administrative justice (review).

The common factor between ADM challenges in the first and second parts is the issue of transparency. The transparency problem in this context generally affects the achievement of the required administrative justice for individuals. Given that this study focuses on the challenges that affect the role of the reviewers (mainly judges) in reviewing ADM cases, this chapter highlights the first challenge, which is the lack of transparency in ADM.

The discussion in this chapter starts by comparing two cases about administrative decisions. The first case is about a decision made by the traditional DMP, while the second case is about an automated decision. The purpose of applying the comparison is to clarify the meaning of transparency as a principle in administrative law and its significance in achieving a balance between decision-makers and the affected individuals. Additionally, it highlights the various flaws and challenges common to both processes, although in different forms. This comparison allows for presenting traditional transparency measures and principles as a foundation upon which to build new approaches for the ADM context.

This chapter also explains the challenges associated with transparency in ADM arising from the documentary analysis conducted in the last chapter, and explores ways to enhance ADM transparency using technical and legal solutions.

The issues and challenges surrounding reviewing ADM, and ADM itself, are not confined to specific departments or areas of law. The fact is that ADM concerns arise in different contexts and departments, notably encompassing immigration, policing, and social security. This chapter analyses cases as examples of the issues arising from a lack of transparency in this sphere of public services from different departments. The reason for this is because the ADM challenges in RP are systemic issues that can occur across diverse governmental functions and bodies. This highlights the need for a consistent and comprehensive approach to ADM regulation, regardless of the specific public body or legal domain involved. This also may help in suggesting one coherent regulation (as discussed in detail in Chapter 6) that can apply to all types of ADM systems used in any department, rather than different rules distributed across different regulations for similar issues.

This chapter and the next chapters also explore how some other jurisdictions outside of the UK have attempted to address and regulate the issues of ADM in the public sectors. They review the legal policies, strategies, existent cases and the role of courts in addressing ADM issues in selected countries. This comparison paves the way to provide answers to which the most appropriate policies that the UK system can benefit in solving and regulating ADM issues, particularly in this chapter, the lack of transparency in the process of review ADM.

5.2 The Concept of Transparency

5.2.1 Overview

Transparency is a central legal principle, protected in administrative, constitutional, and international law, such as EU treaties and UN charters. Whilst there is no specific definition of transparency, it is, in general, the idea of openness, communication, and responsiveness from public bodies to inform

service users (and the public in general) about their activities.⁴⁵⁶ It acts as a mechanism of upholding the rule of law, preventing corrupt activities, and enhancing public trust.⁴⁵⁷ Transparency in administrative law pertains to objectives such as ‘clarity, accessibility, integration, reasoned/rationale, accuracy, openness, and accountability’.⁴⁵⁸ Based on this principle, public bodies are required to act transparently in order to guarantee access to information about the DMP and access to their files.⁴⁵⁹

Transparency can increase individuals’ understanding of and trust in governmental activities, thus strengthening the democratic legitimacy of public services.⁴⁶⁰ It also allows individuals to hold public bodies accountable for their actions by providing information about the processes and resources in public DM.⁴⁶¹ Concerning the focus of this study, transparency can increase the effectiveness and efficiency of both public administration and the process of reviewing public bodies’ decisions. In the context of judicial review, transparency in public bodies includes forms, such as the duty of candour, disclosure of information, and statement of reason.

5.2.2 The Duty of Candour

The duty of candour is a form of transparency in English administrative law. It means that all parties involved in judicial review litigations, such as claimants, defendants (usually public authorities), and even third parties, provide a full and accurate relevant information to the court.⁴⁶² This duty is not a mere document disclosure; it includes the provision of explanations that prevent misleading statements.⁴⁶³ The origins of this duty are found in *R v Lancashire CC Ex p. Huddleston*, which

⁴⁵⁶ Murat Jashari and Islam Pepaj, ‘The Role of the Principle of Transparency and Accountability in Public Administration’ (2018) 10 *Acta Universitatis Danubius* 1.

⁴⁵⁷ *Ibid.*

⁴⁵⁸ Christina H Drew and Timothy L Nyerges, ‘Transparency of Environmental Decision-making: A Case Study of Soil Cleanup inside the Hanford 100 Area’ (2004) 7 *Journal of Risk Research* 33.

⁴⁵⁹ Jashari and Pepaj (n 461).

⁴⁶⁰ *Ibid.*

⁴⁶¹ *Ibid.*

⁴⁶² Elizabeth O’Loughlin, ‘Transparency and Judicial Review: A Study of the Duty of Candour’ (2024) Nuffield Foundation 14-16 available at [OLoughlin-Transparency-and-judicial-review-Oct24.pdf \(durham.ac.uk\)](https://www.durham.ac.uk/~oloughlin/OLoughlin-Transparency-and-judicial-review-Oct24.pdf) accessed on 7 October 2025.

⁴⁶³ *Ibid.*

emphasises that open proceedings are needed in reviews, whereby all information must be available to the court.⁴⁶⁴

The duty of candour functions apply to public bodies even before a formal judicial review and granting permission for judicial review.⁴⁶⁵ For example, *R (Mahmood) v Secretary of State for the Home Department* emphasised the importance of the duty of candour at the permission stage of judicial review proceedings.⁴⁶⁶ Additionally, there was a problem with the defendant's approach in the recent case *R (HM, MA and KH) v Secretary of State for the Home Department* whereby the court required submissions on 'the duty of candour question' at a further hearing.⁴⁶⁷

Furthermore, O'Loughlin explained that all parties involved in a judicial review must undertake responsibility for upholding the duty of candour, but public bodies, given their access to information, hold the responsibility to ensure compliance.⁴⁶⁸ Thus, the effect of the duty on transparency is particularly significant in judicial review. With appropriate candour, the clarity of subsequent decisions increases, disputes are more efficiently resolved, and accountability mechanisms within government are effectively strengthened.⁴⁶⁹

5.2.3 Disclosure of Information

The disclosure of information by public bodies is a fundamental principle in administrative law that supports transparency and accountability. It means that public bodies are mandated to make their documents accessible to the public. Promoting the complete and open disclosure of relevant

⁴⁶⁴ *R v Lancashire CC Ex p. Huddleston* [1986] 2 All ER 941

⁴⁶⁵ Cassandra Somers-Joce and Elizabeth A O'Loughlin, 'Recent Judicial Perspectives on the Duty of Candour' (2023) 28 *Judicial Review* 155.

⁴⁶⁶ *R (Mahmood) v Secretary of State for the Home Department* [2014] UKUT 439 (IAC)

⁴⁶⁷ *R (HM, MA and KH) v Secretary of State for the Home Department* [2022] EWHC 695; Elizabeth A O'Loughlin, Gabriel Tan and Cassandra Somers-Joce, 'The Duty of Candour in Judicial Review: The Case of the Lost Policy – UK Constitutional Law Association' (*UKCLA*, 7 December 2022) <<https://ukconstitutionallaw.org/2022/12/07/elizabeth-a-oloughlin-gabriel-tan-and-cassandra-somers-joce-the-duty-of-candour-in-judicial-review-the-case-of-the-lost-policy/>> accessed 13 February 2025.

⁴⁶⁸ O'Loughlin (n 467).

⁴⁶⁹ *Ibid.*

information ensures that judicial review decisions are based on a full and accurate understanding of the facts. This form of transparency is usually protected in various freedom of information laws, such as the Freedom of Information Act 2000 (FOI), specific regulations concerning data protection, and human rights principles such as Article 10 ECHR (freedom of expression, which underpins the right to access information). These regulations require public bodies to respond to information requests about how different types of information may be handled and shared.

However, there are some limitations of such laws and rights, such as those relating to commercial confidentiality, national security, or personal privacy. For example, in *Bridges v Chief Constable of South Wales*, information about datasets was not disclosed due to commercial confidentiality.⁴⁷⁰ Such cases require an approach to policy implementation to balance transparency with legitimate additional concerns.

5.2.4 Differences between Candour and Disclosure Transparency

‘Candour’ is about ensuring the court has the necessary information to make a fair and informed decision. It is basically concerned with information relating to the decision *per se*, and not with the disclosure of specific documents.⁴⁷¹ On the other hand, ‘disclosure’ refers to a mechanism of exchanging documents between parties and ensuring that all parties have access to all relevant materials.⁴⁷² Tom Hickman also argues that while candour is important, it is too broad and insufficient for effective judicial review, and disclosure is needed to complement it, and to provide a more complete and efficient process. Additionally, one of the fundamental differences between the duty of candour and disclosure is that the former is necessarily implemented before the start of judicial review. However, disclosure can be ordered when required, for disposing fairly of the cause or matter, or if there is insufficiency in the accuracy or completeness of the defendant’s written evidence.⁴⁷³

⁴⁷⁰ *Bridges v South Wales Police* (n 332) [199].

⁴⁷¹ Tom Hickman, ‘Candour Inside-Out: Disclosure in Judicial Review’ (2023) 28 *Judicial Review* 254.

⁴⁷² *Ibid.*

⁴⁷³ Oliver Sanders, ‘Disclosure of Documents in Claims for Judicial Review’ (2006) 11 *Judicial Review* 194.

The mechanisms for requesting and challenging decisions regarding information disclosure include appeals processes and judicial review. They are essential elements of this legal framework for ensuring transparency. The next step is to critically analyse the effectiveness of the current legal framework. It involves examining case law and scholarly commentary to illustrate the practical application of these principles and duties and identify any challenges. This could include discussing issues such as the cost and complexity of obtaining information, the inconsistent application of exemptions across different public bodies, and the potential for undue delays in the disclosure process.

5.2.5 Statement of Reason

Providing reasons for decisions is an essential element of transparency within administrative law.⁴⁷⁴ Jessica Palairt emphasises that individuals deserve to comprehend the rationales behind decisions that affect their lives. This transparency is vital in ensuring that public officials remain accountable in their use of discretionary powers, serving as a defence against potential misuse of authority.⁴⁷⁵ As Alexander Sinclair points out, decision-makers are obligated to apply relevant legal standards to case specific facts in a logical and coherent manner.⁴⁷⁶

As mentioned above, individuals should be able to comprehend the rationale behind decisions that affect them, which guarantees that justice is both served and perceived to be served.⁴⁷⁷ This process assists the individuals affected by the decisions and also aids the courts in testing the legality of such decisions. From a practical perspective, the clarity provided by reason-giving enhances the judicial review process by allowing for a more careful evaluation of the decision's accuracy and relevance.⁴⁷⁸ However, it is crucial to mention that there is no primary common law requirement to provide reasons

⁴⁷⁴ Jessica Palairt, 'Reason-Giving in the Age of Algorithms' (2020) 26 Auckland University Law Review 92.

⁴⁷⁵ Ibid.

⁴⁷⁶ Alexandra Sinclair, 'Automated Decision-Making and Government Opacity' (2025), 1 (2) Public Law 8-15.

⁴⁷⁷ Palairt (n 479).

⁴⁷⁸ Sinclair (n 481).

for administrative decisions, and withholding rationales has been justified in some contexts, such as when disclosing reasons might endanger critical interests like national security.⁴⁷⁹

In terms of ADM decisions, it has been proven that there is a lack of transparency regarding the criteria and reasoning utilised by ADM systems.⁴⁸⁰ This opacity prevents the ability to evaluate whether decisions involving AI algorithms are legally reasonable. Common ADM issues, such as overfitting, highlight the importance of accessing DM criteria to identify potential discrimination.⁴⁸¹ Overfitting, in data science, means that the model or algorithms that learn and train too much may sometimes determine patterns that are not related to the decision (from an automated perspective), which may lead to the ‘wrong’ decision (from a public service perspective).⁴⁸²

Despite the requirement of disclosure of the reason, governments frequently cite commercial confidentiality, trade secrecy, or national security to withhold information about the mechanisms of ADM. Frank Pasquale refers to this practice as ‘legal secrecy’. For instance, in the case of *Public Law Project v Information Commissioner (CJ2)*, the request to disclose the criteria used by the Home Office’s sham marriage triage tool was denied. Although there was an obvious case of indirect discrimination, the tribunal found that the public interest in knowing the criteria had potential harm to the UK’s immigration system. The Home Office claimed that disclosure of the way in which decisions

⁴⁷⁹ Palairt (n 479).

⁴⁸⁰ Sinclair (n 481).

⁴⁸¹ Ibid.

⁴⁸² Overfitting happens in machine learning models, like those used in algorithmic decision-making, when the model learns the training data too well, including its noise and specific details, rather than the underlying generalisable patterns. This occurs because the model becomes overly complex and tailored to the training data, capturing accidental correlations or irrelevant features that cannot be generalised for new, unseen data. For example, an image classifier trained to distinguish wolves from dogs might learn to rely on the presence of snow (because wolves in the training data are often photographed in snowy environments), rather than the actual characteristics of wolves. When the model is then applied to new data (e.g., photos of wolves in different environments), its performance plummets because it is relying on a feature that does not generalise. For further information, see Kathleen Creel and Deborah Hellman, ‘The Algorithmic Leviathan: Arbitrariness, Fairness, and Opportunity in Algorithmic Decision-Making Systems’ (2022) 52 *Canadian Journal of Philosophy* 1-26.

are made might enable individuals to use their responses to avoid scrutiny of their sham marriage applications.⁴⁸³

In order to understand the concept of transparency in administrative justice, this section presents two scenarios for DM in administration as examples. The first is made through traditional methods (including its processes, considered principles, and rights and obligations), and the other is made by ADM machines. These scenarios aim to highlight the issues of transparency as a principle to achieve accountability and fairness in DMP. They also compare judges' behaviours in addressing the concerned transparency issues between the traditional and ADMPs in administrative contexts.

The ability of AJs to review the actions of public bodies to ensure legality, rationality, and procedural fairness necessitates clarity and transparency in DMPs. The cases presented in this chapter underscore the necessity of requesting transparency by judicial review in order to safeguard people from potential injustice. The following subsections explore the handling of transparency in human and ADM cases, and the legal grounds for transparency in the latter.

5.2.6 Transparency in Human Decision-Making

In *SS v North East Lincolnshire Council*, SS applied for housing benefit and council tax benefit through North East Lincolnshire Council, seeking assistance to support his living arrangements.⁴⁸⁴ After SS submitted an application in 2008, the Council conducted an initial assessment and subsequently awarded SS housing support. This decision was crucial for SS, as it provided the applicant with the financial stability needed to manage his housing costs. However, the situation took a turn in July 2010 when the Council requested further information from SS regarding income and financial circumstances. SS complied and submitted the required Review Form along with bank statements,

⁴⁸³ *Public Law Project V The Information Commissioner* (n 440)[60].

⁴⁸⁴ *SS v North East Lincolnshire Council* (2011) CH/0804/2011.

indicating that he had no income and minimal capital. However, the Council subsequently notified SS in response that his benefits were being suspended due to a lack of information.

The Council's communication was somewhat vague and failed to specify the exact information they needed from SS. Instead, it implied that he was solely responsible for the predicament he found himself in, stating that he 'only had himself to blame'. Following the suspension of benefits, SS sent a letter on July 22, 2010, to the Council, explaining his circumstances and asserting that he was managing on limited resources. Despite this explanation, the Council wrote back on July 30, 2010, formally denying his claim for benefits, stating that his entitlement had ended because the information needed to verify his income could not be confirmed.

Mr SS asked for reasons to be provided for the decision to suspend his housing support in order to understand the rationale and DMP that affected him. While common law jurisdictions like the UK impose no general duty on public bodies to give reasons at this stage,⁴⁸⁵ SS claimed to be informed of the rationale based on the 'right to notice'. It carries a requirement that the reason must be disclosed under the administrative law principles of transparency, openness and due process.⁴⁸⁶ Applying this principle to this case, the Council had to disclose the information requested about the DMP, legal basics, reasons, ways of appeal, and other information regarding the decision. At this stage, SS was also supposed to have an opportunity to comment by presenting his response to that notice, asking about the information needed and evidence or contesting the Council's decision.⁴⁸⁷

Mr SS could appeal the decision by the Council's own internal review procedure within one month of receiving the decision.⁴⁸⁸ The Council was then supposed to provide a written explanation outlining the reasons for the denial, and citing specific criteria that SS did not meet. SS's rights to understand

⁴⁸⁵ Paul Daly, *Understanding Administrative Law in the Common Law World* (Oxford University Press 2021) 65-103.

⁴⁸⁶ *Ibid.*

⁴⁸⁷ *Ibid.*

⁴⁸⁸ Article 4(a), The Housing Benefit and Council Tax Benefit (Decisions and Appeals) Regulations 2001.

the decision and to be provided with transparent information about it are derived from the broader constitutional rights and principles, as well as specific legislation and judicial precedent, which often serve as the foundation for transparency requirements in administrative law.

Crucially, the Council provided SS with a letter that included a series of ‘benefit decision notices’, all of which were unhelpfully vague and lacked the detail required for SS to understand why his application had been rejected. The Council did not provide SS with the required legal reasoning and information concerning the decision, even after his appeal by internal review. However, he could only appeal to a tribunal claiming the illegality and unfairness of the decision subsequent to the completion of the Council’s formal internal RP (as per the 2001 Regulations).⁴⁸⁹

UK law and public services are based on the public law principle that decision-makers must act fairly, rationally, and for proper law purposes. The requirements of these duties are also expanded in light of the ECHR, as the requirement to give a reasoned decision is recognised as part of the right to fair trial under Article 6(1). Additionally, the Council has a duty to give reasons for the decision based on the values of transparency in the UK administrative law in responding to judicial review.⁴⁹⁰ While some exemptions in these rights and duties are possible on the grounds of national security, privacy of personal data, commercial confidentiality, and other sensitive information,⁴⁹¹ the obligation to provide reasons and achieve transparency may depend on the significance of the decision, the public interest involved, and the degree of opposition it encounters.⁴⁹² In the analysed scenario, the rationale for appeal can be applied to SS’s case, as he was not told of the reasons for the decision,⁴⁹³ and revision and supersession decisions that affect benefit entitlement carry rights of appeal to the First-tier Tribunal.⁴⁹⁴

⁴⁸⁹ *SS v North East Lincolnshire Council* (n 489).

⁴⁹⁰ PP Craig, ‘The Common Law, Reasons and Administrative Justice’ (1994) 53 *Cambridge Law Journal* 282.

⁴⁹¹ Patrick Birkinshaw, ‘Transparency as a Human Right’ in Christopher Hood and David Heald (eds), *Transparency The Key to Better Governance?* (Oxford University Press 2006) 46-57.

⁴⁹² Daly (n 2) 247–262 .

⁴⁹³ PP Craig, ‘The Common Law, Reasons and Administrative Justice’ (1994) 53(2) *Cambridge Law Journal* 282-302.

⁴⁹⁴ *SS v North East Lincolnshire Council* (n 489).

Based on legal requirements for the DMP to be reasoned and clear, this paved the way for SS to seek judicial review to understand the reasons for the decision and challenge those responsible and accountable. Therefore, frustrated by the lack of transparency and the absence of a clear rationale behind the Council's decision, SS lodged an appeal against the Council's denial. His appeal was taken up by the First-tier Tribunal, where he expected a fair and thorough examination of his case. However, the tribunal's decision on January 20, 2011, effectively agreed with the Council's actions, without properly examining their reasons or considering the evidence SS submitted. The tribunal adopted the Council's summary of facts without conducting a proper investigation, thereby failing to fulfil its inquisitorial role as required by law. Feeling aggrieved by the outcome, SS appealed to the Upper Tribunal, highlighting that the First-tier Tribunal had made errors in law by not addressing the procedural requirements of transparency and reasoned DM. The Upper Tribunal agreed with SS's arguments, finding that the First-tier Tribunal had indeed erred in its approach.

In *SS v North East Lincolnshire Council*, the judge primarily referenced the Housing Benefit Regulations 2006 (SI 2006/213) - particularly regulation 86 regarding provision of information. Regulations 11, 13 and 14 in Housing Benefit and Council Tax Benefit (Decisions and Appeals) Regulations 2001 (SI 2001/1002) govern the procedures for DM related to housing benefit and council tax benefit, including the requirements for local authorities when assessing a claimant's eligibility and the obligations to provide reasons for decisions:

10. On the Review Form he declared he had no income and minimal capital. This prompted the local authority to write to him on 15 July 2010 stating that the Appellant's benefit was being suspended "because information about your income is required". This was presumably (although it is not entirely clear) referring to a suspension (of payment) decision under regulation 11 of the 2001 Regulations. In itself it could not affect his underlying entitlement to benefit (see paragraphs 5 and 6

above). The letter certainly did not meet the requirements for a suspension decision under regulation 13, as will be evident later.⁴⁹⁵

When SS applied for judicial review and succeeded in demonstrating that the Council's decision was unlawful due to a lack of explanation and clarity, principles of giving reasons, and procedural fairness, the court then decided on a remedy.⁴⁹⁶ In this case, the Upper Tribunal allowed SS's appeal for several reasons, the most significant of which was that they identified a significant error in law, concluding that the First-tier Tribunal had failed to conduct an adequate scrutiny of the Council's DMP.

The Upper Tribunal recognised that the communication from the local authority lacked the necessary clarity and detail required to adequately support its conclusions regarding SS's eligibility for housing benefits. This oversight raised serious concerns about whether the Council had fulfilled its obligations to provide a transparent and reasoned basis for its decision, ultimately affecting SS's ability to understand and contest the outcome. In light of this determination, the Upper Tribunal ordered a remittance for re-hearing. It set aside the decision of the First-tier Tribunal and instructed that the case be remitted for a fresh hearing before a differently constituted tribunal. This order underscored the imperative for a fair assessment of SS's unique circumstances and the reasoning behind the Council's actions. The Upper Tribunal emphasised that the new tribunal must engage in a thorough examination of the evidence presented and ensure that SS's case is evaluated with the care and attention it deserves.

Furthermore, the Upper Tribunal reaffirmed the obligations of the local authority to provide reasoning for its decisions. It reminded the Council of its legal duties under applicable regulations, which require transparency and clear justification when making determinations that affect a claimant's benefits. The Upper Tribunal directed the local authority to prepare a fresh written submission that would comprehensively outline the entire history of the relevant decisions pertaining to SS's housing benefit

⁴⁹⁵ Ibid.

⁴⁹⁶ Daly (n 490).

claim. This submission was intended to ensure that the new tribunal received a full understanding of the context and rationale behind the Council's decisions, thereby facilitating a more informed and just re-hearing.

The Upper Tribunal emphasised the importance of transparency, requiring clear reasoning and justification for the decisions made. The absence of such transparency may be the reason behind the appeal's success. In order for the Council to provide a transparent and clear explanation about SS's decision and the rationale behind it, they had to ensure that the processes leading to decisions are understandable and accessible to SS and the court. This involves providing clear reasons for the decision to foster accountability and enable SS to comprehend the reasoning that underlies the denied decision. The process appears slow, but SS may feel that the case was considered individually and fairly after clear reasoning and explanation of the decision.

Given this situation, the question arises of whether the court can apply the same rules, transparency and reasoning requirements on appeal regarding ADM.

5.2.7 Transparency in ADM Cases

The situation in ADM review is different from the way a decision made by a human in the traditional process is reviewed in many aspects. In terms of the ADM RP, even if the case does not relate to disclosure or transparency duty in itself, this will be tested.⁴⁹⁷ Due to the opacity in the way that automated decisions are made, judges and reviewers usually ask for an explanation from the parties or sometimes hire experts, regardless of the area of departments that issued the decision. For example, there are cases in social security, the Home Office, policing, and other public services' decisions. This section discusses how the duty of transparency has been applied in the context of ADM cases. The question of whether the same standard of providing reasons and transparency is applicable

⁴⁹⁷ Tomlinson, Sheridan and Harkens (n 456).

depends heavily on how the ADM operates, and whether a meaningful explanation of the DMP can be provided if the ultimate decision was automated.

The Pantellerisco case⁴⁹⁸, unlike *SS v North East Lincolnshire Council*, involved an ADMP within the UC system. This critical difference significantly impacts the applicability of the same transparency and reasoning requirements. In *SS*'s case, the core issue was the *lack of transparency and reasoning* in the *manual* DMP of the public body and the First-tier Tribunal's failure to scrutinise this. The Upper Tribunal emphasised the Council's obligation to provide clear justifications for its actions. However, *Pantellerisco* revolves around four claimants claiming around the automated calculation of UC and how it impacts claimants.⁴⁹⁹ It particularly focuses on how the UK's SSWP calculates UC for individuals paid on a four-weekly cycle and a lunar month payment, specifically concerning the benefit cap. The automation stems from the use of 'real-time information' (RTI), where employers transfer data about employee earnings and deductions to HM Revenue and Customs (HMRC), which then shares a subset of this information with the Department for Work and Pensions (DWP) for UC calculation (using the AI-based system registered in PLP TAG Register, as explained in Chapter 2).⁵⁰⁰

However, the core issue in *Pantellerisco* is that this ADM system does not account for those paid on a four-weekly cycle, and is just designed around monthly assessment periods.⁵⁰¹ This leads to unfair income assessments and the application of the benefit cap.⁵⁰² As a result, while the claimants seek to know how the UC calculated their income, the calculator was an essential part of the DMP and the SSWP was responsible for a duty of transparency and explanation in relation to it. Relevant considerations in this regard include the following:

⁴⁹⁸ *Pantellerisco & others v Secretary Of State for Work and Pensions* (2020) EWHC 1944 [6], [7].

⁴⁹⁹ *Ibid.* [21].

⁵⁰⁰ *Ibid.* [22], [23].

⁵⁰¹ *Ibid.* [8].

⁵⁰² *Ibid.* [31].

- While automated decisions here might be opaque, could the court examine the impact of the ADM system by looking at biases or unfair outcomes?
- How did the defendants and experts respond to the judges' request for explanation and more transparent reasoning regarding the decision?

The claimant said:

At the same time given that I am working exactly the same number of hours and earning the same amount as somebody working 16 hours at national minimum wage who happens to be paid monthly I do not understand why my family's budget should be subject to the cap.⁵⁰³

Hence, this raised the need for explanation and transparent information regarding the *Pantellerisco* decision. During the proceedings captured in the video of *Pantellerisco & others v. The SSWP [CJ4]*, the judge remarked on the challenges of a **lack of transparency**. In the minutes from 29:00 to 34:00, the judge expresses a need to understand the UC system, stating:

I think it's confusing enough..... but I'm just trying to understand it.....that doesn't tell you enough in order to understand what the intention or what the purpose of the scheme should be for that sort of perceived income is throwing up ...' [CJ4].⁵⁰⁴

The judge expressed that he faced issues of confusion and understanding during the hearing of the case. Due to uncertainty, the court has heard two witness' evidence in order to gather more information about the DMP under this UC ADM System. Paragraphs 28-31 of the judgment explain the

⁵⁰³ Ibid. [77].

⁵⁰⁴ Court of Appeal, 'Pantellerisco & Others (Claimant/Resp) v Secretary Of State for Work and Pensions (Def/Appellant) - YouTube' (15 June 2021) In the minutes from 29:00 to 34:00, [Pantellerisco & others \(claimant/resp\) v Secretary Of State for Work and Pensions \(def/appellant\) - YouTube](#) accessed on 19 April 2025.

automation process in UC, where Helen Hargreaves and Ms. Krahé discuss the RTI system and the specific data items transmitted to the DWP.⁵⁰⁵

Despite the witness and expert evidence, the judge also stated that ‘That doesn’t tell you enough in order to understand what the intention or what the purpose of the scheme should be for that sort of perceived income...’ [CJ4]. In the printed judgement document, the judge emphasised that:

Ms Krahé’s statement discusses the options for calculating the sum referred to in the exemption from the benefit cap. But there was no evidence that specific consideration was given to solving the lunar month problem as it is identified in the present proceedings.⁵⁰⁶

The judgement file reveals that the DWP’s staff have limited access to the data provided by employers to HMRC, including pay frequency.⁵⁰⁷ This seems that even if the data existed, it was not readily available to those DM about UC calculations, potentially hindering transparency in the process. Additionally, the court pointed out that there was nothing to suggest that the possibility of solving the lunar month problem was ever considered and rejected. These points suggest that these are indications that the defendant’s transparency was a point of contention.

Since the discussion here is about achieving transparency and giving reasons in DM, it is also important to highlight the cases based primarily on the FOI and how it is applied in cases related to automated decisions. For example, in *PLP v. ICO* (CJ2), mentioned above, was about freedom of information from the Home Office regarding its sham marriages system. In this case, the principle of transparency was a central point of dispute. The appellant argued for transparency in an algorithmic ADM system used by the Home Office to identify potential sham marriages. They contended that transparency and accountability are achieved only by understanding how the technology makes decisions. The appellant

⁵⁰⁵ *Pantellerisco & others v Secretary Of State for Work and Pensions* (n 41), [87].

⁵⁰⁶ *Ibid.*

⁵⁰⁷ *Ibid.*, [65].

claimed that the Home Office's refusal to disclose such information undermined transparency and made it difficult to assess potential discrimination.⁵⁰⁸

The court acknowledged the importance of transparency, particularly in ADM in public bodies, as highlighted by expert witness Reuben Binns. He noted that disclosing the sources of information and data used to make decisions is essential for accountable, transparent, and public debate.⁵⁰⁹ However, the court ultimately sided with the Commissioner's decision to withhold certain information. The court reasoned that disclosing the withheld criteria would likely prejudice the system by enabling individuals to 'game' it, outweighing the public interest in transparency.⁵¹⁰

5.2.8 Comparative Analysis between Human and ADM Disputes

As explained previously in Chapter 1 and Chapter 3, judicial review by courts evaluates the legality of public bodies' DMP and ensures that they adhere to principles of public law, rationality, and procedural fairness. When individuals seek transparency, openness, or access to information regarding decisions made by these bodies, their claims are often grounded in legal frameworks that mandate such openness. As explained in the next section, the duty of transparency is enshrined in laws such as freedom of information legislation or similar legislative frameworks that oblige public bodies to provide access to data used in decision-making and giving reasons for them.

In this context, transparency becomes a legal requirement, aligning directly with the principles of legality as explained in Chapter 3. Courts, when assessing cases involving transparency claims, examine whether public bodies have adhered to these legal standards and whether they have justifiably withheld information, if at all. Additionally, in some cases, there are some other redress

⁵⁰⁸ *Public Law Project V. The Information Commissioner* (n 439).

⁵⁰⁹ *Ibid.* [39].

⁵¹⁰ *Ibid.* [64].

processes, such as statutory bodies like the ICO (which can also intervene), providing another layer of oversight and redress for individuals seeking transparency.⁵¹¹

This section compares the principle of transparency in two cases, focusing on their comparability and application of transparency. The cases are comparable in that both concern judicial review of decisions impacting individuals' benefits. However, a key difference lies in the DMP: one involved a human decision-maker, the other an ADM system. This difference significantly affects how the transparency principle is applied. Both ways in DMP illustrate the importance of transparency in administrative DM, although they showcase different aspects.

In ADM cases, the **data and algorithmic transparency** are vital; in the human case, **procedural transparency** and the ability to understand the reasoning are crucial. Both highlight the need for checks and balances to ensure fairness and accountability. The ADM's opaqueness presents a different challenge than the human decision maker's failure to provide adequate justification. The transparency principle, therefore, requires different approaches in different contexts.

5.2.8.1 Human Review

The component of human review in traditional DMPs plays a crucial role in interpretation and explaining administrative decisions. In SS's case, the Council initially conducted a thorough assessment of his housing benefit application, which was subject to human judgment. However, transparency issues emerged when communication regarding the suspension of benefits became vague, as the Council failed to specify the exact information required from SS. This lack of clarity hindered SS's ability to understand the reasons behind the decision, limiting his opportunity to respond to it effectively. However, the administrative law principles regarding reasoning and transparency are applied directly to the person (human) who issued the decision. The accountable humans are then usually required to

⁵¹¹ ICO, 'Legislation We Cover' (*Information Commissioner's Office website*, 2020) <<https://ico.org.uk/about-the-ico/what-we-do/legislation-we-cover/>> accessed 19 April 2025.

provide deeper exploration and explanation of decisions to the court, allowing for a more nuanced understanding of the context surrounding their decisions.

In contrast, the ADMP lack this human element. Algorithms operate on predefined rules and data inputs, which can make the decisions seem impersonal and opaque. In the *Pantellerisco* case, the claimants faced difficulties in comprehending how the UC system translated their individual circumstances into financial decisions.⁵¹² The absence of human review in ADM means that decisions may be generated without personal engagement or consideration of the unique nuances of each case. This can create a disconnect between decision-makers and affected individuals by causing significant transparency issues, and claimants may struggle to understand the basis of adverse outcomes.

5.2.8.2 Clear Reasoning and Accountability

Clear reasoning and accountability are integral to ensuring that decisions made by public bodies are justifiable and transparent. In the case of *SS*, despite the opportunity for appeal, the initial communications from the Council lacked specificity, failing to provide adequate reasons for the decision to suspend benefits. This lack of clear reasoning created challenges for *SS*, who sought to contest the decision. The judicial review process took note of this transparency failure, emphasising the right of individuals to receive reasoned explanations for decisions that affect their livelihoods. Here, accountability is directly linked to the clarity of the DMP: if a decision can be explained, it can be scrutinised and challenged effectively.

Conversely, in *PLP v. ICO*, the automated nature of ADMP compounded the issues associated with clear reasoning. PLP highlighted that the ADM system lacked transparency regarding how specific inputs led to particular outcomes, and the lack of explicit explanations for the exclusion of certain sham marriages and the rationale behind the system policy led to difficulty in understanding the decisions and holding authorities accountable for bias. The greater challenge lies in accessing

⁵¹² *Pantellerisco & others v Secretary Of State for Work and Pensions* (n 503).

information and rationality within ADM systems, which raises concerns about potential harm to law enforcement and immigration control. Therefore, while the principle of transparency was considered, it was not fully applied in this case.

In general, decisions generated by algorithms may not provide readable explanations for individuals affected. This opacity makes it difficult to identify remedies, particularly when claimants face adverse decisions that they wish to contest.

5.2.8.3 Remedies

In human DMP, a lack of transparency or reasonability ultimately led to a successful judicial review challenge. The ability to seek remedies following an adverse administrative decision directly ties into the transparency of the DMP, as well as more fundamental issues of fairness. In *SS v North East Lincolnshire Council*, the judicial review ultimately provided a pathway for him to seek redress for the Council's failure to offer clear reasoning. The court highlighted the necessity for transparency as a prerequisite for accountability, reiterating that claimants must have access to sufficient information to appeal decisions. The Upper Tribunal's acknowledgement of the lack of clarity in the Council's communications reinforced the value of transparent DMPs in facilitating effective remedies.⁵¹³

In some cases involving ADM, the challenges of transparency complicate the path to remedies. While courts might consider decisions unlawful, irrational, or even discriminatory, they sometimes support defendants in not disclosing or sharing the information behind the decision. For example, in *PLP v. ICO*, the court sided with the ICO due to risk in social security, as previously explained.

Furthermore, in other ADM cases, courts faced challenges in providing remedies due to the technological nature of ADM systems. For instance, in *Pantellerisco*, although the court found that the UC system discriminated against the claimants, the ruling did not provide clear mechanisms or remedies for rectifying the established discrimination. If the case had been made according to a

⁵¹³ *SS v North East Lincolnshire Council* (n 489).

traditional DMP, the courts could have declared an order to the public body to change its decision or amend its policies to address the claimed issues. This is because the transparency here relates to reasonability, rationality, and information specific to the decision makers.

On the other hand, in ADM, the issue of transparency relates to massive data, codes, and mathematical language that are not understandable to the majority, or even to the public bodies using ADM systems themselves, as explained in the previous chapter. Any disclosure or change to this data could affect the security and privacy of the information, as the SSWP responded in *Pantellerisco*.⁵¹⁴

Therefore, the absence of transparent information and a rationale for the automated decisions and the cost in redesigning the system prevent even defendants from reconsidering the decision.⁵¹⁵ This leaves claimants in an uncertain position regarding how to address and review their grievances. Additionally, the lack of explicit explanations of how ADM functions leaves a significant barrier to formulating effective remedies and leads to concluding the cases at an early stage. Claimants may find themselves unable to challenge decisions or understand the rationale behind them, further exacerbating the transparency issues inherent in ADMPs.

Furthermore, ADM systems appear to suffer from significant transparency issues, as evidenced by the cases presented. This lack of transparency is further compounded by the fact that a broader systemic problem with information accessibility and transparency within the departments' systems. Furthermore, the lack of a readily available solution due to social security or systematic technical cost issues indicates a failure to adequately address the negative consequences impacting claimants. This contributes to a perception of a lack of responsiveness to the concerns and financial hardships of those affected by the system's limitations.

⁵¹⁴ *Pantellerisco & others v Secretary Of State for Work and Pensions* (n 89).

⁵¹⁵ *Ibid.*

5.2.8.4 Expert Evidence

In judicial review proceedings, the inclusion of expert evidence can play a pivotal role in clarifying the complexities of the legal frameworks and DMP generally. For *SS*, the judicial review primarily focused on the Council's vague communication and failure to provide reasonable explanations for the suspension of his benefits. The Council's decisions were examined based on legal standards and principles of transparency, but without expert witnesses. The case of *SS* involved human-made decisions that allowed the court to request explanations directly from the Council, thereby clarifying the rationale for its judgment.

Conversely, in most ADM cases, while the court assessed the systems' operations and their implications for the claimants, the expert testimony sometimes helped courts' capacity to grasp how ADM systems were designed to function. For example, in *Pantellerisco*, the court identified discrimination in the implementation of the UC regulations, but encountered challenges in understanding the operational nuances of the system, further highlighting the systemic transparency issues that arise in ADM contexts. As a result, the court heard expert evidence in order to examine the technical complexities that shaped the ADM system.

Moreover, *Johnson*⁵¹⁶ demonstrates how expert evidence can be utilised in court proceedings, illustrating a more proactive approach to involving expert evidence in judicial reviews related to ADM. In *Johnson*, the court engaged an AI expert to explain the specifics of the UC's operation. This expert analysis was intended to explain how algorithms generate decisions and the rationale behind specific operational features that affect individuals' outcomes. The inclusion of expertise can help courts understand the technical aspects that inform DM, which is especially critical in navigating the complexities of systems that may lack inherent transparency.

⁵¹⁶ *Johnson and others v SSWP* (2019) EWHC 23.

However, the effectiveness of expert evidence is dependent upon its relevance and applicability to the case at hand. In *Johnson (CJ5)*, for instance, it was noted that the expert testimony did not ultimately provide the clarity or explanations required by the court to resolve the issues effectively.⁵¹⁷ Similarly, Professor Anil Jain described that in *ED Bridge v. South Wales Police*⁵¹⁸, the ADM system did not provide the required information to the judge to assist him in understanding the system's DMP. As mentioned before, he emphasised that he could not comment on whether AFR had a discriminatory impact, as he did not have access to the datasets on the algorithms trained in this system.⁵¹⁹ This situation seems to underscore a significant concern regarding the reliance on expert evidence in judicial proceedings, particularly when experts do not adequately address the key questions posed by the judges or fail to relate their insights to the specific grievances of the claimants.

Overall, the differing experiences regarding expert evidence in judicial review cases highlight fundamental challenges in ensuring transparency and accountability in ADM systems. The examination of transparency issues alongside the role of expert evidence in judicial review highlights a compelling narrative about the intersection of technology and law. Chapter 6 studies the role of expert evidence in filling the gap of expertise within the court in the judicial review process. While not every case may warrant the inclusion of expert evidence, the complexities inherent in ADM systems call for focused consideration of the information that experts can provide, ensuring that judicial reviews effectively address the nuances critical to transparency, accountability, and equitable outcomes for affected individuals.

5.2.8.5 Summary

This comparison of human and automated decisions aimed to demonstrate the meaning of transparency as a principle necessary for judges to effectively address administrative decisions. It has

⁵¹⁷ Ibid.

⁵¹⁸ *Bridges v South Wales Police* (n 332).

⁵¹⁹ The High Court of Justice (n 410).

been conducted by examining judges' attitudes about the lack of transparency in examples of human DM and ADM, which has allowed several distinctions to emerge.

In human DM contexts, the principles of administrative law related to transparency can be directly applied, as there is a clear connection between the decision, the decision-maker and the rationale behind the decision. However, in cases of automated decisions, the application of these principles becomes more complex, as it necessitates understanding the relationship between the decision and its basic reasoning. This relationship is often unclear and cannot be fully understood without disclosing the internal data and operations of the ADM that generated the decision. Furthermore, the absence of a human decision-maker in this relationship appears to complicate the issue of accountability, as it becomes challenging to determine responsibility for the outcomes produced by an ADM.

In order to discuss the issues of transparency in ADM, the next section comprehensively explains the importance of transparency in administrative decisions for the judicial review process, the legal grounds for transparency, and the challenges in achieving transparency in the context of ADM. The discussion here builds upon the documentary analysis presented in the previous chapter. Additionally, later sections review the responses from the judges' experiences in dealing with transparency issues, but in other aspects of law outside of administrative law. These responses have also been observed and concluded through the documentary analysis illustrated in the previous chapter.

5.2.9 Legal Grounds for Transparency in ADM

In general, while the principles of fairness and transparency remain crucial, their application differs significantly when dealing with ADM. The focus shifts from demanding reasons for each individual decision to examining the system's design for overall fairness and lack of bias. There is no explicit requirement for the system itself to generate human-readable explanations for each and every decision. In the cases explained above, the public bodies in different departments were obliged to uphold the transparency principle due to a combination of legal requirements. First, while the

addressing of automated decisions requires access to personal data, the public bodies, based on FOI and UK GDPR, shall be obliged to: '(a) processed lawfully, fairly and in a transparent manner in relation to individuals'⁵²⁰. FOI gives individuals the right to access the information regarding the decision; likewise, it requires the formulation of reasons which have resulted in the decision. Additionally, any claimant has the right to be informed about how the public bodies use their personal data in issuing the decision. This is a key transparency requirement under the UK GDPR Article 5(1).

Furthermore, for some administrative decisions, it is legally required that the decision makers state the reasons and rationale for the decisions made. The individuals addressed by a particular decision have the right to know the explanation of the decision and how it was taken. As for automated decisions, some have argued that ADM lacks the ability to explain how a decision is made, especially for non-technical people. Additionally, the machine, in some cases, lacks provision of the reasons behind the results it has reached due to the issue of opacity in automated decisions.

In contrast, the nature of the automated tools includes the ability to learn from the input data and train from experiences in generating decisions.⁵²¹ Although ML processes are sometimes not explicit, their probabilistic results are shaped by human discretionary choices made in the process of designing and training algorithms. Therefore, this automated feature can perhaps enhance the use of ADM by training the machine in how to explain results and provide a rationale in future systems.

In this regard, the UK has attempted to regulate the principle of transparency in ADM by issuing required legal rules. In addition to the FOI Act and GDPR, there are the Code of Practice for Public Sector Information, Equality Act 2010, the influence of human rights law and the duty to give reasons in judicial review. This section outlines the legal basis of transparency in ADM.

⁵²⁰ UK GDPR 2018, Article 5(1).

⁵²¹ Huggins (n 348).

5.2.9.1 The Freedom of Information Act 2000 (FOI)

The UK issued the FOI in November 2000, but it became fully effective only in January 2005. It provides an individual who is concerned by an automated decision with the right to access information held by public bodies. It promotes openness and accountability, and offers a way to increase transparency in how algorithms are used.⁵²² The Act gives any person a right of access to information held by over 100,000 public bodies, who are required to respond within 20 working days; this time period can be extended to allow for consideration of release based on the public interest test. The Act contains a number of exemptions in two categories, 'absolute' and 'qualified'. Where information falls within the scope of an 'absolute exemption', a public authority is not obliged to communicate it to an applicant. Also, in most absolute exemptions, the authority will be excused from the obligation to comply with the duty to confirm or deny. However, when requested information falls within the scope of 'qualified exemption', a public authority must comply with its duties under Section 1(1), unless the public interest in non-disclosure outweighs the public interest in disclosure (Section 2) in the Act.

The 'absolute exemptions' are listed under Section 2(3), and under these exemptions, there is no requirement for a public body to consider whether the public interest favours disclosure. In the case of 'qualified exemptions', if the information falls within the scope of a particular exemption, the public body must consider the competing public interests in disclosure and the maintenance of secrecy.⁵²³ Such exemptions can face barriers which limit the transparency and their goals. Additionally, offering information alone needs enforcement mechanisms to ensure that public bodies comply. Consequently, the impact of access to information acts can also be limited and difficult.⁵²⁴ The public

⁵²² Katherine Fink, 'Opening the Government's Black Boxes: Freedom of Information and Algorithmic Accountability' (2018) 21 *Information, Communication & Society* 1453.

⁵²³ Sudhir Naib, '1 Freedom of Information: A Global Perspective', *The Right to Information Act 2005* (Oxford University Press 2011).

⁵²⁴ Fink (n 527).

bodies may also have an aim to balance transparency benefits against potential risks, with information pending due to security concerns or trade secrets.⁵²⁵

The Act's implementation was significantly delayed. Despite being passed by Parliament in 2002, but the right to access information did not take effect until January 2005.⁵²⁶ This raises serious questions about the effectiveness of the Act's process. Banisar's critique of the FOI Act centres on its flawed implementation, highlighting unacceptable delays in responses and DM by both the public bodies and the ICO.⁵²⁷ There are no set time limits for decisions, and the Commissioner had not set any deadlines. Many people also complain that the public bodies use too many loopholes of exemptions to avoid releasing information.⁵²⁸

It is worth noting here the link between FOI and ADM. The FOI act has become used to access information about automated decisions that have harmed individuals. For example, the ICO has prepared an important report as the authority to issue requests for FOI under the FOI Act for automated decisions. This position of the ICO gives its reports importance in clarifying the extent of the transparency problem in addressing ADM issues. One ICO report, '*Findings from ICO consensual audits on Freedom of Information of police forces in England and Wales*' [IN6], highlights the key findings and shared themes from nine individual audit reports of police forces in England and Wales. It can be observed from the report that the issue of lack of transparency in the police actions led to several adverse outcomes, including: (1) delay and difficulty in addressing problems quickly and effectively,⁵²⁹ (2) insufficient training and awareness⁵²⁹ among staff about FOI procedures, data

⁵²⁵ Ibid.

⁵²⁶ David Banisar, 'Freedom of Information Around the World 2006: A Global Survey of Access to Government Information Laws' (2006) Privacy International available at [Microsoft Word - survey2006final.doc \(ssrn.com\)](#) accessed on 7 October 2025.

⁵²⁷ Ibid.

⁵²⁸ Ibid.

⁵²⁹ ICO report, '*Findings from ICO Consensual Audits on Freedom of Information of Police Forces in England and Wales*' (ICO, July 2024) available at [Findings from ICO consensual audits on Freedom of Information of police forces in England and Wales](#) accessed on 7 October 2025.

protection, and managing personal data breaches;⁵³⁰ and (3) inconsistent quality of responses assessed before release, leading to potential errors and inaccuracies in information provided.⁵³¹

5.2.9.2 Transparency in the UK GDPR

Article 5 (1) requires that personal data shall be: '(a) processed lawfully, fairly and in a transparent manner in relation to individuals ('lawfulness, fairness and transparency').

The element of transparency throughout the GDPR plays a basic role in ADM due to personal data used in the designing of such systems. As a principle, transparency means that data controllers must be responsible for providing information to individuals about the types of personal data they collect and the reasons for which they process the data. This is typically made available through the transparency requirement under Article 5(1) (a), which mandates that all processing of personal data must have a fair, lawful and transparent basis.⁵³²

Moreover, Articles 13 and 14 mandate that data subjects be informed when their personal data is processed, including the existence of ADMPs and the logic involved, if the decision significantly affects them.⁵³³ This requires data controllers to disclose information about the existence, logic, and significance of ADMPs impacting individuals. This transparency obligation aims to empower individuals with knowledge, enabling them to understand and potentially challenge automated decisions made about them.⁵³⁴ The requirement extends to both fully and partially automated decisions, ensuring a consistent approach regardless of the degree of human involvement.

The GDPR's transparency requirements in the ADM context are further clarified through its 'Recitals', which provide non-binding guidance. For instance, Recital 71 emphasises the importance of providing

⁵³⁰ Ibid.

⁵³¹ Ibid.

⁵³² GDPR, Article 5(1)(a)

⁵³³ GDPR, Article 13, 14.

⁵³⁴ Jessica Bell and others, 'Balancing Data Subjects' Rights and Public Interest Research: Examining the Interplay between UK Law, EU Human Rights Law and the GDPR' (2019) 5 Eur Data Prot L Rev 43.

meaningful information to data subjects about the processing of their data. It also highlights the need for clear language, which offers valuable context in ADMP.⁵³⁵ Transparency is also important for individuals to be able to know whether the revealed processing activities comply with the GDPR and their legal rights.⁵³⁶

5.2.9.3 Measures to Ensure Transparency in ADM

Several measures are in place to ensure compliance with principles and laws related to transparency in administrative justice in the UK. One key component is that public bodies are usually required to engage in public reporting and accountability practices, including publishing annual reports and other materials that detail their DMPs and transparency efforts. Making such information publicly available is intended to indicate their commitment to compliance with transparency expectations.

Furthermore, another important way to ensure transparency is the role of regulatory bodies, such as the ICO, which oversees compliance with the FOI and data protection laws. These bodies have the authority to investigate breaches, take enforcement action, and provide guidance to public bodies on fulfilling their transparency obligations.⁵³⁷ To appeal for information, if an initial appeal to the public body is unsuccessful, then it could be appealed to the ICO. The ICO covers the information laws such as FOI Act, GDPR, and DPA in its role of upholding information rights in the public interest.⁵³⁸ It is an independent organisation that exists to empower the public with their access to information rights.

Judicial review serves as another mechanism to ensure compliance. Through this process, courts can examine decisions made by public bodies, ensuring that they are lawful, fair, and transparent.⁵³⁹

⁵³⁵ Ibid.

⁵³⁶ 'Data Protection Principles under UK GDPR Article 5' (*Lex Dinamica*) <<https://www.lexdinamica.com/post/data-protection-principles-under-uk-gdpr-article-5>> accessed 24 January 2025.

⁵³⁷ ICO, 'How Do We Ensure Individual Rights in Our AI Systems? | ICO' (n 375).

⁵³⁸ ICO, 'Legislation We Cover' (n 516).

⁵³⁹ Birkinshaw (n 496).

Judicial review allows individuals to challenge decisions that might contravene the principles of administrative justice, providing a legal avenue for accountability.

5.3 Transparency in ADM Judicial Review

A lack of transparency is a type of opacity whereby public bodies neglect to disclose information relating to or used in a decision, as explained in Chapter 3.⁵⁴⁰ The cases analysed in the previous section show that the judge may be unable to review and address opaque decisions without a level of transparency regarding the information behind them. Before explaining the details of the lack of transparency in ADM, this section first explains the importance of transparency in judicial review, to understand why judges and affected people need transparency in administrative decisions.

Judicial review helps ensure public bodies act within the rule of law, and transparency is one important aspect of it. In the administrative law context, as explained above, people should be able to understand the reasons for the decisions that affect them. Transparency in this case ensures legality and the accountability of public bodies that exercise DM. Therefore, judicial review can be used to address a lack of transparency when that inadequacy violates a specific legal right or requirement, such as freedom of information laws or statutory obligations.⁵⁴¹

Moreover, transparency is crucial for effective judicial review. It establishes legal grounds by providing courts with the information needed to assess the legality, rationality, and procedural propriety of administrative decisions.⁵⁴² Transparency ensures fair processes by granting access to information for both judges and affected parties, fostering accountability within public bodies and enabling informed challenges to decisions.⁵⁴³

⁵⁴⁰ Alexandra Sinclair, 'Automated Decision-Making and Government Opacity' (2025) (1) Public Law 8-15.

⁵⁴¹ Palairret (n 479).

⁵⁴² Ibid.

⁵⁴³ Ibid.

5.3.1 Challenges of Transparency in ADM Judicial Review

While the UK has established various measures to ensure compliance with transparency in administrative justice, there are significant challenges and criticisms surrounding their effectiveness. Regulatory bodies like the ICO often face resource constraints that limit their ability to conduct investigations and enforce compliance effectively.⁵⁴⁴ So fewer cases may reach judicial review with a robust evidence foundation. In addition, the decisions of public bodies often lack transparency, for example, to keep state secrets in the interests of national security or to attempt to hide criminal activities and avoid documentation that could be disclosable.⁵⁴⁵ This can lead to worsening accountability and making later judicial review even more difficult.

The impact of the lack of transparency on judicial review has been clearly highlighted in this research by performing a comprehensive content and thematic analysis of the collected documents. The findings of this research point to some factors that prevent achieving transparency in ADM.

First, public bodies' refusal or neglect to disclose information is a fundamental factor undermining transparency in challenging ADM in court. Second, poor explanation of ADM, limited access to information, and disclosure issues can result in a lack of transparency and delay judicial review processes, making it difficult to hold bodies accountable. Third, this issue appears obvious from FOI requests in the cases against public bodies in order to understand the details of how ADM were made. For example, it can be observed from *Ofqual v. ICO* judgement ([CJ16](#)) that the main issue resulted from the limited access to information about the used ADM in this case.⁵⁴⁶ The judges have faced several challenges concerning disclosure requests concerning algorithms. **Ofqual** argued that releasing requested data could harm their relationship with stakeholders and damage public trust. Similarly, in *PLP v. The Information Commissioner* ([CJ7](#)), the Home Office's initial refusal to disclose the data used

⁵⁴⁴ Banisar (n 531).

⁵⁴⁵ Elizabeth Fisher, 'Transparency and Administrative Law: A Critical Evaluation' (2010) 63 *Current Legal Problems* 272.

⁵⁴⁶ *Ofqual v Information Commissioner: [2023] UKUT 253 (AAC)*.

in the ‘Sham Marriage’ triage model highlights a lack of transparency and prevents individuals’ understanding of how decisions that affected their lives were made. Even after partial disclosure, the core algorithmic logic and DMP remained opaque, which left concerns about the system’s fairness. As a result, the appellant argued that, without disclosure, there was no way to assess the model’s potential for discrimination, and it was difficult to determine accountability. The information provided by the Home Office was insufficient, and the appellant demanded accountability because the factors behind the decisions remained opaque.⁵⁴⁷

Moreover, while the judgment in *Bates v Post Office* [CJ1] is not a judicial review but it highlights significant problems that hampered the fair and efficient conduct of the trial. These issues primarily stemmed from the Post Office’s reliance on Fujitsu for information and the subsequent difficulties in obtaining complete and accurate data. In this case, the Post Office did not initially provide access to the full audit data (the ‘audit store’), and the court then faced difficulties in determining the causes of many problems regarding the functionality of the Horizon system:

559. There are certain categories or descriptions of classes of documents that have featured heavily in the evidence at the Horizon Issues trial. The path to disclosing them has not always been smooth. The majority, if not all, of the technical documents that relate to how Horizon was actually operating in fact in IT terms are in the possession of either the Post Office or (more usually) Fujitsu.⁵⁴⁸

Furthermore, the use of ‘remote access’ was not clearly defined by the Post Office, which prevented transparency and affected the process of review in the court. These disclosure issues demonstrate a broader problem of transparency by the Post Office and Fujitsu, which significantly affected the court’s ability to fairly assess the merits of the case.

⁵⁴⁷ *Public Law Project V. The Information Commissioner* (n 439).

⁵⁴⁸ *Alan Bates and other V Post Office Limited* (2019) EWHC 3408 (QB).

The issues of review are further increased by significant **delays**, illustrated by the *Post Office* case. The report details how the extremely late disclosure of critical evidence – ‘crucial documents, including a large number of PEAKs (Problem Event Analysis and Knowledge), very late in the process, sometimes just days before or even after the trial concluded’ severely hampered both claimants and their experts. The sheer volume of belated information was disclosed after the trial had ended. This delayed access to evidence directly prevented effective case preparation, as noted in the text describing how this prevented ‘both the claimants and their experts from properly reviewing and analysing the information, severely impacting their ability to present their case effectively’ [CJ1].

On the other hand, other findings support the results in the real cases regarding issues of transparency. For instance, in the collection of expert evidence, it appears difficult for experts to provide judges with answers to questions about whether a system in a case was wrong or the data was biased. Professor Anil Jain, an expert in computer science and engineering who submitted a witness report [EX6] in *ED Bridge v. South Wales Police* case, noted in Points 15 and 28 that:

[Point 15] ‘I cannot comment on whether AFR Locate [an ADM system] has a discriminatory impact, as I do not have access to the datasets on which the system is trained and therefore cannot analyse the biases in those datasets’.⁵⁴⁹

[Point 28] ‘Such information is considered commercially sensitive. However, without this information I cannot assess whether the training dataset is biased’.⁵⁵⁰

Moreover, Carol Krahé, the Team Leader for Universal Credit Policy at the DWP, provided two informative witness statements in the document [EX8] of *Pantellerisco & Others v SSWP*. In her statements, she clarified how the UC system functions, specifically through its monthly assessment

⁵⁴⁹ Dr Anil Jain, ‘Second Expert Report in *ED Bridge v. South Wales Police*’ (2019) High Court of Justice (QB) Administrative Court (Cardiff District Registry).

⁵⁵⁰ *Ibid.*

periods and payment cycles.⁵⁵¹ Krahé discussed the RTI system, detailing the process through which earnings information is relayed from employers to HMRC, and then to the DWP. She emphasised the automated nature of UC calculations, highlighting that the system is based on earnings received instead of hours worked. However, she also pointed out that operational staff do not have regular access to detailed payment pattern information. This limited access has been noted to impact the transparency and clarity needed in addressing the case effectively.

From these findings, the challenge of transparency and explainability in the field of ADM and AI is increasingly evident, even among experts. The above findings indicate that experts struggle to provide judges with sufficient information. This highlights the need for developing methodologies and tools that bridge the knowledge divide between AI developers and legal professionals. There are also needs to combine efforts to improve model interpretability for explainability that are accessible to non-experts, including judges.

Furthermore, enormous collections from governmental and private institutions have issued documents and reports showing the impact of transparency challenges on the process of oversight and addressing ADM. The Justice and Home Affairs Committee has investigated how advanced AI technologies impact the justice system [GV19]. The document raises important concerns about ADM transparency issues and the right to a fair trial due to a potential for manipulated evidence and a lack of understanding of how AI technologies operate in, for example, criminal proceedings. These technologies may involve a potential alteration of raw data through algorithms, with examples ranging from subtle "corrections" to more overt distortions. For instance, algorithmic error correction in CCTV footage could "construct artificially" parts of a person, presenting something that was not originally

⁵⁵¹ *Pantellerisco & others v Secretary Of State for Work and Pensions* [2020] EWHC 1944, Carol Krahé witness statement has been cited in the judgment in points from 19 to 26.

present. The concern is that this manipulated evidence could be presented in court sittings without its potential misrepresentation being disclosed.⁵⁵²

Such manipulation undermines fair trials by obscuring the truth and preventing effective challenge. The defendants may be unaware of alterations, making it difficult to identify and contest the evidence. In response to these challenges, the document proposes safeguards including precise documentation of any algorithmic alterations, evaluations of validity and bias by subject experts, and thorough transparency regarding the use of algorithms in evidence processing.⁵⁵³

The Royal United Services Institute (RUSI) [IN1] is a research institution on public debate and critical national and international defence and security issues. RUSI's report 'ML Algorithms and Police DM: Legal, Ethical and Regulatory Challenges', published in September 2018, explains the prediction of an individual's likelihood of future crime by using algorithms in police DM. It cites Alexander Babuta and Dr. Marion Oswald as saying that:

If a subject wishes to challenge a decision that has been made with the help of an algorithm, it must be possible for the subject to scrutinise the algorithm's prediction and be provided with an intelligible summary, of the factors the model took into account, and how these factors influenced the prediction. However, there is no work that addresses the explanation for humans, ensuring a sufficient degree of transparency concerning the input data and how it is processed or providing explanation for non-experts such as the judge or the complaint. This lack of transparency hinders the ability to scrutinize decisions and challenge their fairness.⁵⁵⁴

⁵⁵² The Justice and Home Affairs Committee, 'Technology used in the justice system is outpacing scrutiny and regulation' (30 March 2022) report on *The UK Parliament*, Available at [Technology Rules? The advent of new technologies in the justice system \(parliament.uk\)](https://www.parliament.uk/resources/reports/technology-rules-the-advent-of-new-technologies-in-the-justice-system) last accessed on 19 Aug. 25.

⁵⁵³ Ibid

⁵⁵⁴ Alexander Babuta, Marion Oswald and Christine Rinik, 'Machine Learning Algorithms and Police Decision-Making Legal, Ethical and Regulatory Challenges report', (RUSI, 21 September 2018).

Additionally, the PLP has extensive experience in the problems of evaluating and addressing ADM transparency issues through its project TAG. TAG was one of the sources that indicated that there is a lack of transparency in the review of ADM due to limited disclosure information by public bodies about their ADM.⁵⁵⁵ It is evident from TAG's table on its website that there is a lack of transparency surrounding ADM systems by the public bodies like the Home Office and the DWP. Phrases like 'The public body has not disclosed enough information' appear frequently repeated. The information of 'how it works' column is also incomplete for many systems. It is worth mentioning that despite the issues and errors that resulted from ADM, only five 'litigations' against five systems have been held for judicial review, due to defective or delayed information about errors or wrong decisions.

PLP also has experience in requesting FOI from public bodies, which indicates the challenges to transparency in the information regarding ADM in the public bodies. Hence, PLP issued many reports regarding this issue, like the [IN4] report, where Ariane Adam, Legal Director of the PLP, said:

Despite many requests under the Freedom of Information Act, the DWP has previously refused to provide details about its use of automation to assess Universal Credit applications. This lack of transparency is very problematic.⁵⁵⁶

Without transparency there can be no evaluation, and without evaluation it is not possible to tell if a system works reliably, lawfully or fairly.⁵⁵⁷

Ariane Adam has expressed significant concerns about the transparency and fairness of the system. She warns that without detailed public information on how the algorithm operates, it is impossible to assess its reliability, legality, and fairness. The report emphasises the finding in this study that the

⁵⁵⁵ Public Law Project 'Tracking Automated Government 'TAG' Register' (n 211).

⁵⁵⁶ Public Law Project 'Machine Learning Used to Stop Universal Credit Payments' (*Public Law Project*, 11 July 2022) <<https://publiclawproject.org.uk/latest/dwp-accounts-reveal-algorithm-used-to-stop-universal-credit-payments/>> accessed 15 January 2025.

⁵⁵⁷ *Ibid.*

absence of comprehensive evaluation and assessment mechanisms makes it difficult to compromise accountability and oversight.

The Alan Turing Institute made a submission as part of the inquiry on ‘algorithms in DM’ [Ex5] as lodged by the Science and Technology Committee of the House of Commons. The written evidence included the observation that, due to a lack of transparency and explanation, expert support is needed by the affected individual. Consequently, it may be costly for the individual affected by automated decisions to challenge them:

‘The financial burden a citizen may have to undergo in hiring the right type of expert to support their challenge’. [EX5]

The document also stated that there are concerns about trade secrets and copyrights that hinder transparency. Therefore, the data controllers usually resist sharing DMPs, fearing adverse impacts on business interests. Indeed, it has been observed that, in this case, it is difficult to access information regarding algorithms and to obtain disclosures and explanations. This appears to be the situation even for experts.

The Ada Lovelace Institution is a research institute that focuses on AI and data. Its report [IN5] reviews existing UK mechanisms for transparency and their relation to the implementation of ADM systems. This report reveals the results of a study into the effects of a lack of transparency on review and accountability. In essence, it concluded that the absence of transparency, opaque processes, and limited accessible information creates significant barriers to effectively review and redress challenges related to ADMs. For example, those issues firstly limit the ability of the AJs to hold those responsible for designing, implementing, and using ADM accountable for an action. Secondly, the issues of transparency increase the difficulties in investigating cases of bias, errors, or abuse, and prevent pinpointing what particular aspect of ADM needs to be reviewed.

Aside from the initiatives of such institutes, the government's documents comprise a comprehensive collection, as mentioned in the previous chapter, in relation to the type of areas of law relating to transparency in ADM. They give a clear explanation about ADM lack of transparency in different areas of law in a single report. For example, the [GV1] report is based on discussion among experts in different areas of law and state departments. A hundred experts have participated in workshops to produce outputs about the challenges that are associated with AI and ADM to provide the UK Government's Centre of Data Ethics Innovation with their advice on AI policy. The report covers the issues of transparency across five sectors (criminal justice, financial services, health and social care, education and governmental service). The expert from criminal justice confirmed that the people affected by ADM are facing difficulties in challenging the decisions made by algorithms due to the 'black box' nature of the process. It appears from the reports that the expert in this sector supports that the main dimension of the transparency challenge is the commercial confidentiality regarding the ADM functions, which affects the public awareness of AI and ADM.⁵⁵⁸

The report [GV2] focuses on the auditing and governance of algorithmic systems in the UK. This document does not specifically address algorithmic judicial review, but it does extensively discuss the broader issues of algorithmic accountability, transparency, and the need for auditing processes. The consumer protection law has emphasised that the opacity regarding ADM affects the auditing of the extent of the consumer protection in an automated decision and the accountability enforcement. Without the provision of information associated with auditing, the trust among different groups of stakeholders could be undermined. For example, the report mentions that if:

A supermarket chain uses facial recognition technology to assess the age of a customer when purchasing age-restricted products.... The supermarket customers

⁵⁵⁸ GOV.UK 'CDEI AI Barometer' (GOV.UK, 23 June 2020) <<https://www.gov.uk/government/publications/cdei-ai-barometer/cdei-ai-barometer>> accessed 19 January 2025.

may be uncomfortable with this new technology and require assurance that its use would not lead to them being treated unfairly.⁵⁵⁹

The assurance and information in identifying customers who require an age check is important to be accurate and transparent for being able to assess consumers' protection. Despite this report does not reflect government activity but it demonstrates an aspect of the facial recognition technology that is also operated in public bodies for security. It appears that without effective algorithmic auditing, the different stakeholder groups remain without an understanding of the nature and impact of algorithmic systems in this sector. This could limit the role of the organisations in improving their services and, at the same time, affect the consumer's rights to review the decisions against the organisations.

Another governmental study in consumer protection law 'The Impact of Artificial Intelligence on Product Safety 2021' [GV6], reported that the operation of many AI products is opaque, which makes it difficult to assess risks for consumers, businesses, and regulators. For example:

When smart speaker's recordings are shared with third parties without the original participants' consent, it is considered an offence under the Regulation of Investigatory Powers Act 2000 (RIPA). Indeed, user consent can become a persistent issue if there is little transparency on when the device is recording, how long it records, and where those recordings go.⁵⁶⁰

Moreover, Parliament published an important report, 'AI in the UK: Ready, willing and able' [GV10], written by the House of Lords Select Committee on Artificial Intelligence appointed to consider the economic, ethical and social implications of advances in AI. It is a call for answers to questions on topics, such as public perceptions of AI, the pace of technological change, impacts on society, ethical matters arising from AI, and what the proper role of the Government should be. The Committee

⁵⁵⁹ Forum Digital Regulation Cooperation (n 457).

⁵⁶⁰ the Centre for Strategy and Evaluation Services (CSES), 'Study on the Impact of Artificial Intelligence on Product Safety Final Report A Report For' (2021).

received 207 responses from companies, organisations, and public bodies, including Microsoft, IBM, Fujitsu, TechUK, the Alan Turing Institute, the Future of Humanity Institute, and the Leverhulme Centre for the Future of Intelligence, the Royal Society, the RSA, and the ICO. The document is more than 1000 pages, and provides answers to 11 questions for the Committee. The relevant questions here are 9 and 10, about the issues of lack of transparency in AI and the role of the government in regulating this issue.⁵⁶¹

Based on the responses received, many experts highlighted that achieving full technical transparency is difficult and even impossible for certain types of AI systems today. They emphasised that the challenge of achieving full technical transparency is basically due to the difficulty in accessing source code for the commercial secrets, noting it wouldn't explain specific decisions.

A critical analysis of reports, studies, and administrative records about real cases, expert witnesses and FOI requests makes it possible to evaluate the principles of transparency, access to information, and disclosure requests in ADM matters. In the light of the foregoing, it is clear that achieving transparency and access to information in ADMP is being hindered by several reasons, the most important of which is the cost of hiring experts and requesting information. The results about the factors of transparency challenges in the context of review and addressing ADM have been supported also by some studies, newspapers, publications and podcast interviews. For example, Robin Allen QC and Dee Masters, who run the ai-lawhub.com and tweet at @AllLawHub, summarise the main points from their recent publication on AI and ADM in government.⁵⁶² They indicated that the insufficient public information about how Risk-Based Verification (RBV) systems operate, leading to a 'black box' problem where applicants cannot verify the fairness of decisions.

⁵⁶¹ House of Lords Select Committee Artificial Intelligence (n 145).

⁵⁶² Robin Allen QC and Dee Masters, 'Government Automated-Decision-making' (2019) *The Legal Education Foundation (TLEF)*, available on [Government automated-decision-making \(localgovernmentlawyer.co.uk\)](https://www.localgovernmentlawyer.co.uk) accessed on 20 Jan 2025.

Additionally, in an article tracking current civil liability regimes in the UK and in other jurisdictions used to assess damages by AI systems and machine learning,⁵⁶³ it was observed that the traditional liability regime is often impractical with AI systems due to the difficulty in finding the responsible party and understanding the ADMP. The article discusses how the complexity of AI systems, combined with their 'black box' nature, makes it difficult to determine accountability and address potential damages caused by these systems. It seems that the article is in line with the findings above that the transparency issues are due to AI involving various actors, such as developers, operators, and users, each contributing to the system's functioning in different ways. Identifying damage liability is complicated by this multiplicity of agents, each potentially influencing the AI's operation and outcome. The existing UK liability frameworks may not adequately cover the unique aspects of AI-related harm, leading to calls for new, AI-specific liability systems.

Furthermore, some scholars address the barriers that courts are facing in reviewing evidence. Tomlinson et al., in their article judicial Review *Evidence in the Era of the Digital State*, identified key practical challenges limiting effective judicial review functions, including the opacity of AI, which led to difficulties in access to information and personal data.⁵⁶⁴ Similarly, due to the opacity and transparency issues, when AJs lack expertise in assessing the sufficiency of provided technological evidence or the level of disclosure required in the case, it practically causes obstacles in fairly reviewing the evidence. Even after access to essential information in the ADM system, the process of review requires technological literacy and expertise evidence.⁵⁶⁵ Additionally, it has been stated that challenges such as costs and delays result from the issue of the opacity and disclosure problem:⁵⁶⁶

⁵⁶³ Ana Taveira da Fonseca, Elsa Vaz de Sequeira and Luís Barreto Xavier, 'Liability for AI Driven Systems', in Fonseca, A. Sequeira, E. Xavier, L. *Multidisciplinary Perspectives on Artificial Intelligence and the Law* (Antunes, Springer, Cham 2024) 299.

⁵⁶⁴ Tomlinson, Sheridan and Harkens (n 456).

⁵⁶⁵ Gontarz (n 443).

⁵⁶⁶ Maxwell and Tomlinson (n 240).

A more complex case, however, is where the claim turns on the existence of automation bias in a system... the court interrogating whether decision-makers had become too dependent on the automated signals. This is very complex territory for a court, not only due to the difficulty in accessing evidence but also in how the assessment of that evidence might become highly technical in place.⁵⁶⁷

5.3.2 Transparency vs. Privacy Right

Although transparency is a required objective in administrative law and accountability, its implementation does raise privacy challenges due to involving sensitive personal data.⁵⁶⁸ Hence, the question arises of how an appropriate balance can be achieved between transparency and the right to privacy of individuals and the general public.

ADM relies heavily on big data that governments use to store information about individuals. Consequently, sensitive personal data can be compromised in requests to disclose government DMP that use these systems. Transparency and privacy are often linked, whereby the right to privacy for individuals and the need for transparency in DMPs meet.⁵⁶⁹ It seems that the right of privacy aims to protect an individual's interest, while transparency is a principle which aims to achieve public interest. In this regard, achieving the right balance between these values may require the government to protect the data by disclosing the process of DM without the personal data.

For example, the case *Public Law Project V. The Information Commissioner (2023)*⁵⁷⁰ illustrates the conflict between the privacy right and transparency in the context of ADM. As explained previously, the PLP in this case sought disclosure of the criteria used in a Home Office system to detect sham marriages. The PLP argued that transparency would increase accountability and reveal potential biases. However, the Home Office argued that disclosure of personal information, such as

⁵⁶⁷ Tomlinson, Sheridan and Harkens (n 456).

⁵⁶⁸ Teresa Scassa, 'Privacy and Open Government' (2014) 6(2) *Future Internet*, 397-413.

⁵⁶⁹ Tero Erkkilä, 'Transparency in Public Administration' (2020) *Oxford Research Encyclopedia of Politics*.

⁵⁷⁰ *Public Law Project V. The Information Commissioner* (n 439).

nationalities, would allow those who want to commit sham marriages not to be detected. The Home Office prioritised the security of the immigration system and the privacy of its operational methods over public transparency. Ultimately, the Upper Tribunal sided with the Home Office, finding that the public interest in maintaining privacy and the secrecy of the criteria balanced with the public interest in transparency. This illustrates a case where the protection of the effectiveness of law enforcement (individual privacy, or rather, the privacy of the system's function) was prioritised over complete transparency, even if the transparency had the potential to reveal biases or injustices. The judgment balances the potential for public good (transparency) against the potential for harm to public safety (privacy of system design and function).

Balancing transparency and privacy in ADM requires an approach that can address essential tensions between these values. First, carefully disclosing 'public' personal information necessitates strategies such as privacy protection while safeguarding individual rights.⁵⁷¹ Second, as explained previously, the relationship between the public bodies and the corporate owners of ADM systems may need clear guidelines concerning how to share required information. These guidelines must ensure the necessary data is available for judicial review and public interest claims, while strictly protecting personal data.⁵⁷²

While transparency can potentially threaten individual privacy, when individuals are trying to access public bodies' use of data, it is necessary to have greater transparency.⁵⁷³ Hence, concerns about privacy have prompted the adoption of information access laws, such as Data Protection Act (DPA) 2018, whereby transparency serves as both a safeguard and a solution.⁵⁷⁴ The courts will either rule to protect personal data if individuals' privacy will be infringed, or disclose information for people to understand decisions that will threaten social security. In the event of a conflict between the two

⁵⁷¹ Scassa (n 573).

⁵⁷² Ibid.

⁵⁷³ Erkkilä (n 574).

⁵⁷⁴ Ibid.

rights, the laws in the UK (FOI and DPA) appear to give priority to the public interest, as shown in *PLP v. ICO 'Sham Marriages'*.

5.4 Enhancing Transparency in ADM from Other Laws

Generally, the main finding in this chapter is that, in practice, the quality of information released by public bodies that is available for judicial review is frequently insufficient. Many public bodies choose minimal disclosure rather than substantive reporting, which can create a misleading impression of compliance with the principles and regulations of transparency. The individuals involved may also lack the knowledge or resources needed to interpret reports, which leads to ineffective efforts in developing true transparency.

Additionally, while judicial review offers a valuable avenue for requesting transparency and accountability, access to this process can be limited by legal complexities, including high costs and lengthy procedures. This can prevent individuals from challenging decisions and thus may not be in the interest of fairness or transparency.⁵⁷⁵

From the observational discussion and qualitative documentary analysis, there are responses and recommended solutions from different fields, which have been organised and observed from analysing the cases and reports collected in this study. Following on from the above analysis, this section briefly categorises the most relevant responses and recommendations regarding transparency issues into technical and legal solutions.

5.4.1 Technical Solutions

Technical solutions focus on approaches that explain the internal process and behaviour of the ADM system itself, providing insights into why it gives certain outputs. This includes algorithmic

⁵⁷⁵ Sudhir Naib, 'Freedom of Information: A Global Perspective', In Naib, S. *The Right to Information Act 2005* (Oxford University Press 2011) 1-20.

transparency tools that can provide explainability, rationales and reasons for predictions, and other technical aspects of the model that can aid user understanding. It is about making the model's decision process itself understandable. The majority of computer science and AI experts support this approach and indicate that it is possible for algorithms used in ADM to be more open and transparent in their design. For example, the '*Interpretable Machine Learning*' [GV18] outlines several technical measures aimed at increasing the interpretability and accountability of ML systems.⁵⁷⁶ It responds to the transparency issues by explaining the approaches of interpretability in AI and ML mechanisms.

Most experts believe that it is difficult or impossible to fully understand black box systems and tools for interpreting and explaining ADM, which is in the early stages of development. However, they argue that in many cases, a black box can be replaced by a more interpretable method by designing ADM with inherent interpretability. This relates to developing methods that explain proxy models, the internal map of the system, and the counterfactual explanation (much of which can be achieved with available software toolkits from Microsoft). The experts also added that ADM could be traceable by the documentation of algorithms (i.e., programming details) and an ML Fact Sheet to inform the users about a system's characteristics, such as its performance, safety, security and limitations.⁵⁷⁷

Similarly, in the business law field, Dr Alison Powell [EX4] recommended that transparency needs to be incorporated in system design by using algorithms that fundamentally consider standards of transparency, rather than self-learning algorithms.⁵⁷⁸ Additionally, [GV2] provides examples of auditing approaches in business and consumer protection laws.⁵⁷⁹ It is worth mentioning here that successful AI auditing and explainable methods could be applied in ADM and be used by public bodies to improve transparency.

⁵⁷⁶ Parliamentary Office of Science and Technology, '*Interpretable Machine Learning*' *POSTnote* (2020) No. 366, available at [POST-PN-0633.pdf \(parliament.uk\)](https://post.parliament.uk/post-pn-0633.pdf) accessed on 21 Jan 2025.

⁵⁷⁷ Ibid.

⁵⁷⁸ Dr Alison Powell, '*Evidence on Algorithms in Decision-Making*' (*Parliament.UK*, April 2017) <<https://committees.parliament.uk/writtenevidence/80005/html/>> accessed 22 January 2025.

⁵⁷⁹ Forum Digital Regulation Cooperation (n 457).

One way this can be achieved is an empirical audit, designed to assess the effects of using an ADM system by measuring its inputs and outputs. This approach can test the system against specific hypotheses, such as whether a facial recognition system is less accurate or show bias when used on individuals from particular demographic groups.⁵⁸⁰ Second, a technical audit can be performed, which means ‘looking under the hood’ to understand where there may be issues in a system. It allows for examination if there are problems with the data, source code, or methods, reviewing system inputs and evaluating the algorithm during its development. It could also consider how the algorithms were built, trained, and coded to understand the workings of the system. For example, Ofcom has adapted technical audits and checks of the user interfaces as part of its accreditation scheme for digital comparison tools for the communications sector.⁵⁸¹

Furthermore, the digital technologies experts [GV15] emphasised that AI is able to increase transparency through open access code, which could raise understanding. Additionally, experts in intellectual property and copyright laws suggested the use of opt-in/opt-out models for AI datasets in order to give greater transparency control:

An opt-in model would require copyright holders to explicitly give consent for their intellectual property to be included in training datasets, whereas an opt-out model would mean that AI developers can use intellectual property by default unless rights holders explicitly request to remove their work from the datasets.⁵⁸²

Umang Bhatt, an AI expert in healthcare, produced the DIVINE method, which can detect training data that can impact the outputs and can also be placed throughout the inputs.⁵⁸³ It provides explanations

⁵⁸⁰ *ibid.*

⁵⁸¹ *ibid.*

⁵⁸² Ansh Bhatnagar and Devyani Gajjar, ‘Policy Implications of Artificial Intelligence (AI)’ *POSTnote* (2024) No. 708 available at accessed on 21 Jan 2025; see also the working paper by Hayleigh Boshier, ‘Copyright & generative AI: regulating data mining’ (2023), *Brunel University London*.

⁵⁸³ Umang Bhatt, ‘Trustworthy Machine Learning: From Algorithmic Transparency to Decision Support’ (Apollo - *University of Cambridge Repository* 2023).

of model predictions to assess them through task simulatability, which allows decision-makers to simulate the complete decision boundary of the model. For instance:

Suppose we want to build a diagnostic model for clinical use. Given the medical history and symptoms of a new patient, our model will suggest potential diagnoses. DIVINE explanations of model predictions will indicate which m previous patients (i.e. training data points) were important to the model generated diagnoses for a new patient. DIVINE guarantees the m patients are not identical.⁵⁸⁴

Bhatt found that users notice that DIVINE points are more diverse, useful, and more trustworthy. This encourages the public bodies and government's ADM developers to use technological transparency methods like DIVINE as a way to make ADM systems more explainable.

Although the majority of AI and computer science experts indicated that technological transparency models and tools are limited and novel in the field of DM, they acknowledge that it is not impossible to begin solving known issues. However, these approaches may affect the performance of ADM systems and limit their functionality. The lack of funding and resources further complicates the transparency issues and the effective management of the growing complexity of AI. These models also might limit dataset size, hindering AI development and increasing the administrative burden on rights holders. Technical audits are often difficult and expensive to undertake, given the complex nature of systems and the challenges in gaining sufficient access to systems.

A holistic proposal by Abe Chauhan seeks to improve transparency in ADM review by applying structural procedural review (SPR). This is a conceptual framework initially designed for legal systems,⁵⁸⁵ which can be applied across the entire process of ADM, including model design, data selection (for operating the system), and making the decision.⁵⁸⁶ Chauhan argues that it helps address

⁵⁸⁴ Ibid.

⁵⁸⁵ Chauhan (n 7).

⁵⁸⁶ James Morrish, 'Clarity and Legality in Automated Decision-Making' (2025) 30 *Judicial Review* 1, 4.

the opacity and automation bias in ADM by looking into the input and output.⁵⁸⁷ As a result, it will encourage system audits and disclosure of design and operational documents. However, while SPR offers a comprehensive framework to address opacity and transparency, it seems that its practical application might face difficulties, such as a lack of technical (systematic) expertise, that need to be addressed to ensure that it is accessible, effective, and equitable in practice.

5.4.2 Legal Transparency Solutions

This section relates to the different legal actions that improve transparency in ADM, benefiting from the opinions of judges, lawyers, and other experts in ADM from the legal field. It also reviews attempts to solve the problem of legal transparency in areas of law outside administrative law. It seeks to determine the solutions offered by judges, lawyers, experts, and the government to improve transparency and help judges understand contested decisions from different areas of law.

It is worth mentioning here that the UK Government's Office for Artificial Intelligence and the Department for Digital, Culture, Media and Sport issued 'The Algorithm Transparency Recording Standard' (ATRS) in 2021.⁵⁸⁸ It is a framework designed to enhance transparency and accountability in the AI use algorithms, particularly in public sector DM. The ATRS aims to ensure that algorithms used by organisations, especially those that can significantly impact individuals' lives, are documented and assessed for fairness, bias, and effectiveness. However, it appears that the ATRS and its recent modifications are insufficient. Since the ATRS was issued, only seven transparency reports have been

⁵⁸⁷ Chauhan (n 7).

⁵⁸⁸ GOV.UK 'Algorithmic Transparency Recording Standard- Guidance for Public Sector Bodies' (GOV.UK, 5 January 2023) <<https://www.gov.uk/government/publications/guidance-for-organisations-using-the-algorithmic-transparency-recording-standard/algorithmic-transparency-recording-standard-guidance-for-public-sector-bodies>> accessed 14 November 2024.

published.⁵⁸⁹ Most of the government departments that use ADM covered by the ATRS, including the most important ones in this regard (the Home Office and the DWP), have yet to submit any reports.⁵⁹⁰

As mentioned in Chapter 2, the PLP launched the TAG register in 2023, aiming to track the transparency level of ADM used by public bodies. The PLP informed the government in a letter to Secretary of State Michelle Donelan that ‘an explicit legal obligation is needed’, and the ATRS needs to be required by statute.⁵⁹¹ Currently, public bodies are not obliged by the ATRS to submit transparency reports, which has been identified as a problem:

[Lack of transparency] seriously reduces people’s ability to access information about how their personal data is being collected and used. This includes limiting access to information about automated decision-making processes to which they are subject.⁵⁹²

Dr Alison Powell [EX4] recommended that business law should establish requirements for companies using AI and algorithmic systems to make features of training data available for review.⁵⁹³ Training data itself may be copyrighted, but its key features (for example, whether data makes assumptions about particular features of populations) should be accessible for scrutiny. This recommendation could be adapted to administrative law by establishing a requirement of transparency for public bodies using ADM by making the data public and accessible to review by reviewers and the courts.

The GDPR’s ‘right to explanation’ is in reality more of a ‘right to be informed’, rather than to provide an explanation of the internal factors about the decision.⁵⁹⁴ The term ‘right to explanation’ appears

⁵⁸⁹ Public Law Project ‘Minister Urged to Amend Data Bill and Make Government AI Transparent’ (*Public Law Project*, 15 March 2024) <<https://publiclawproject.org.uk/latest/ministers-urged-to-amend-data-bill-and-make-government-ai-transparent/>> accessed 14 November 2024.

⁵⁹⁰ Ibid.

⁵⁹¹ Ibid.

⁵⁹² Public Law Project ‘Data Bill No.2 Puts Rights at Risk. Again’. (*Public Law Project*, 14 April 2023) <<https://publiclawproject.org.uk/resources/data-bill-no-2-puts-rights-at-risk-again/>> accessed 14 November 2024.

⁵⁹³ Dr Alison Powell, ‘Evidence on Algorithms in Decision-Making’ (*Parliament.UK*, April 2017) <<https://committees.parliament.uk/writtenevidence/80005/html/>> accessed 22 January 2025.

⁵⁹⁴ Alan Turing Institute, ‘Evidence on Algorithms in Decision-Making (ALG0073)’ (*Parliament.UK*, 28 February 2017) <<https://committees.parliament.uk/writtenevidence/80037/html/>> accessed 23 Jan 2025.

only in Recital 71, which is not legally binding. Instead, Articles 13-15 require providing information about the implications of ADM, but not requesting detailed information. The Alan Turing Institute [EX5] suggested the need to address such gaps in existing regulations, like GDPR, by establishing a legally binding ‘right to explanation’.⁵⁹⁵

Similarly, PLP [EX1] proposed improving transparency in public bodies’ use of ADM by making the Algorithmic Transparency Standard (ATS) mandatory, with a broad definition of ‘public sector organization’ and minimal exemptions.⁵⁹⁶ They advocate for clearer, more detailed guidance within the ATS, including algorithm rules and criteria and sufficient detail for affected individuals to understand the process. It is essential to include ‘executable versions’ of the algorithms and an ongoing monitoring and evaluation process.

Some vital recommendations were made by the Justice Lab [IN9] to solve transparency issues. First, they suggest strengthening and adapting existing legal tools to address the specific challenges of ADM. This includes mandatory use by public sector ADMs of the Data Protection Impact Assessments (DPIAs), with the findings being publicly available. Second, they highlight that the selection of a particular type of ADM system must be itself initially subject to legal scrutiny, and its processes should be designed to be open and accountable.

Furthermore, the legal experts in ‘Transparency mechanisms for UK public-sector algorithmic DM systems’ [IN5] provided several solutions to address the transparency issues surrounding ADMs in the UK public sector. The report emphasises the need for more robust enforcement of existing regulations and guidelines, such as those related to audit trails in procurement processes. It also advocates for greater transparency in data sharing agreements and the proactive publication of relevant information in accessible formats. The document also suggests promoting open-source software and open data

⁵⁹⁵ Ibid.

⁵⁹⁶ Public Law Project, ‘Written Evidence about ADM (GAI0069)’ (*Parliament.UK*, November 2022) <<https://committees.parliament.uk/writtenevidence/113825/pdf/>> accessed 23 Jan 2025.

standards to improve understanding and scrutiny of ADMs. This would necessitate clearer guidelines and better support for local authorities to adopt these standards effectively. The authors express the importance of expanding the powers of the FOI Act, specifically to address limitations stemming from commercial secrets exemptions and to include private companies acting as agents of public bodies. The creation of a central, accessible registry of ADMs and their data flows, coupled with improved data quality standards and frameworks, might improve the effectiveness of data-driven ADM oversight.

In some instances, judges' practices in criminal justice have been useful to improve their understanding of contested automated decisions. In *Bridges v South Wales Police*, for example, the judge addressed the issue of explanation by relying on and carefully evaluating the expert witness statements presented.⁵⁹⁷ The case involved extensive expert evidence presented by both the Appellant (Bridges) and the South Wales Police, specifically on the technical aspects of the AFR technology and its potential biases. The judges considered this expert testimony, along with other evidence, in reaching their decision. Also, in *PLP v. ICO* [CJ7] the Tribunal suggested that, while there was a lack of transparency, once the appellant found and presented evidence of indirect discrimination, this should be enough for the judge to demonstrate that accountability is possible. This means that the judges should apply the law if the appellant appears affected by any level of unfairness, regardless of limited disclosure from the public bodies.

The cases analysed in this study show that it was often difficult for the judges to understand automated decisions in relation to most areas of law in the UK. This indicates that the issues of transparency and black box need to be looked at and enhanced by the UK regulators in all aspects of law, not just administrative law. However, there are several key mechanisms that could be applied in administrative justice to solve the issues of transparency in ADM from the collected documents:

⁵⁹⁷ *Bridges v South Wales Police* (n 334).

- In the UK Government, the 'ATS' should be activated so public bodies disclose information about how their ADM is used in decision-making processes.
- In environmental law, the precautionary principle is well-established and prescribed, which aims to ensure 'that measures should be taken, where there is uncertainty about the existence of risks, without having to wait until the reality and seriousness of those risks becomes fully apparent'.⁵⁹⁸

In the report [GV15], the fields of criminal law, education, and healthcare all responded to the ADM black box and lack of transparency issues. The report suggested that audits could help ensure compliance with impact assessments and relevant laws, but challenges remain in coordinating these efforts across multiple regulatory bodies. The current transparency framework for AI is incomplete and requires further development.

The CDEI report [GV9] in finance demonstrates some mechanisms that include updating guidance on the application of existing equality and data protection laws, and promoting transparency and explainability in algorithms. It stressed the significance of working with industry to establish common standards and practices, and conducting research to understand public attitudes toward the use of AI.

From the fields of criminal law, the Data Analytics Lab of the West Midlands Police attempted to enhance transparency by producing ADM with no external companies involved in providing these tools [GV8].⁵⁹⁹ Consultations or reviews are documented in the minutes of the West Midlands Police Data Ethics Committee, which are publicly available. Their training for staff is provided by the tool developers in person, with sessions recorded for future reference. Relevant documents and information about the tools, including reports and minutes from the ethics committee, are publicly

⁵⁹⁸ Knight (n 211).

⁵⁹⁹ West Midlands Police, 'Predictive Policing (736A/22)' (2022), *West Midlands Police Freedom of Information Website* available at [Predictive Policing \(736A/22\) - Freedom of Information - West Midlands Police \(west-midlands.police.uk\)](https://www.west-midlands.police.uk/predictive-policing-736a-22) last accessed on 19 Aug. 25.

accessible through the Police and Crime Commissioner's website. Since the tools are developed internally, there are no commercial contracts or external vendors involved, which is helpful in disclosure and FOI requests.

It is worthwhile to mention the bills which aim to improve transparency. The Public Authority Algorithmic and ADM Systems Bill (2024) aims to: regulate the use of ADM in the public sector; require public authorities to complete an impact assessment of ADM systems; ensure the adoption of transparency standards for such systems. Additionally, the 'AI Strategy' and the 'Algorithmic Transparency Recording Standard' have made the basics of introducing transparency in ADM more feasible.

Ultimately, although complaints and appeals for individuals who are affected by ADM exist, the complexity and opacity of these systems can discourage individuals from explaining their concerns. Consequently, the lack of transparency in ADMPs allows issues of non-compliance to persist unchecked. As a result, the actual implementation of transparency reveals significant shortcomings that require critical examination and reform to restore public confidence and improve ADM judicial review in UK law.

From another side, the growing concern about the transparency of ADM systems in cases before the judges from different types of law has exposed a serious gap in case law and the UK judicial system. Therefore, this chapter looks at other jurisdictions for some reasons. The above analysis proves lack of the literature about the responses of UK courts and the challenges that they have faced in addressing disputes relating to AI and ADM use by the public bodies.

In addition, public trust in ADM is critical in any jurisdiction, and in the UK there have been instances where public trust has been affected due to perceived or actual misuse of AI technologies, with no assurance of successful or indeed competent judicial review. The current UK framework is lacking in robust and legally enforceable transparency requirements for AI use in the public sector. A report

written by Mia Leslie with Caroline Selman and Fieldfisher recommended that ‘If the UK Government wants public sector use of AI and automation to be underpinned by “trust and transparency” it should learn lessons from the approaches taken elsewhere in the world’.⁶⁰⁰

5.5 International Experiences to Enhance Lack of Transparency

This section illustrates some international responses to the lack of transparency in ADM from other countries such as the EU, Canada and Australia. It aims to highlight approaches from which the UK could learn. The document analysis in this chapter has shown that the UK’s laws and practice currently offer only limited responses to transparency challenges in ADM. However, other jurisdictions have begun to develop some structured and explicit frameworks to address these issues. The following discussion will therefore consider identify how their legal and regulatory responses to ADM transparency might inform and strengthen the UK’s own approach.

5.5.1 EU Regulations on ADM Transparency

The EU has taken a leading role in regulating ADM and AI through a framework built around the GDPR and the emerging Artificial Intelligence Act (AIA). GDPR establishes foundational rights and obligations concerning the use of personal data in ADM, including provisions on transparency, meaningful information about solely automated decisions with significant effects. Building on this, the AIA introduces a risk-based, AI-specific regime that targets systemic risks associated with high-risk AI systems (HRAIS), including transparency, documentation, and accountability duties for developers and developers. Together, these instruments constitute a comprehensive regulatory approach that seeks to protect fundamental rights what will be explained in the Chapter 6 about the regulatory responses from the EU.

⁶⁰⁰ Mia Leslie, Caroline Selman and Fieldfisher, ‘Around the World in AI Regulation - How the UK Can Become a Leader in Transparency’ (2024) Public Law Project available at [Around the world in AI regulation - how the UK can become a leader in transparency - Public Law Project](#)

Regarding the lack of transparency in the EU framework, Articles 13, 15 and 22 appear to be critical components of the GDPR focusing on ADM and grant individuals the right to be informed and meaningful information. However, there are several criticisms of the GDPR from a public law perspective. First, various loopholes exist under the EU GDPR regarding consistency with fundamental principles of EU administrative law. For example, the explanation requirement appears ineffective in practice, since it can be contracted out with prior informed consent and notification.⁶⁰¹ Second, a general criticism is that GDPR tends to conceptualise the legal challenges associated with ADM through the narrow lens of privacy protection. Because of the focus on how businesses use “data” against privacy and other rights, it also deals with ADM only indirectly.⁶⁰² It also centrally focuses on the responsibilities of “data controllers” (software companies), rather than those of ADM users, including public bodies. This induces a potential imbalance of power and could enable abuses of fundamental rights, including administrative safeguards.

Furthermore, in general, the AIA’s more explicit formulation of the transparency obligation does not create any new rights beyond the existing GDPR procedural right to be informed; nor does the Article 52 provision offer anything new beyond what was already protected under the GDPR. The legislation does not clearly set out a duty to give reasons (the right to explanation) after an automated decision has been made. Additionally, it seems significant progress has not been made in establishing stronger rights of challenge, access, or remedies for individuals subject to ADM by public bodies. The right to human intervention is set out in stronger language than provisions of the GDPR, together with a more explicit recognition of stricter obligations placed on public bodies in this regard.

A further provision of significance can be found in Article 13 of the AIA:

⁶⁰¹ Paul de Hert and Dimitra Stefanatou, ‘The Accountability Culture in Its European Union Dress: Sticks but No Carrots to Make the Proposed Data Protection Regulation Work’ in Artemi Rallo, Lombarte and Rosario García Mahamut (eds), *In un nuevo régimen europeo de protección de datos: Towards a new European Data Protection Regime* (Tirant Lo Blanch 2015) 389-410.

⁶⁰² Ibid.

1. High-risk AI systems shall be designed and developed in such a way as to ensure that their operation is sufficiently transparent to enable deployers to interpret a system's output and use it appropriately.⁶⁰³

This Article 13, unlike the general transparency obligation outlined in the GDPR, has specific applicability to high-risk systems such as ADM and requires that AI providers ensure that their operation is sufficiently transparent. This provision also appears to be a stronger formulation of an individual's right to an explanation. Moreover, users of ADM obtain the right to access information regarding the characteristics of the input modalities of ADM, such as data profiling, including any features that may affect its accuracy or present risks to fundamental rights.

There are two cautions concerning Article 13 that can limit its potential application, despite its appearing to establish a more clearly defined, and hence judicially enforceable, right to an explanation.⁶⁰⁴ The first limitation is similar to the challenge identified with the EU GDPR, namely that this obligation to ensure that users can understand and interpret the AI systems only applies to AI providers (private entities). By implication, this would exclude the extension of this right to administrative decision-makers, who by the law's own definition are categorised as users, rather than providers of AI. Secondly, Article 13 of the AIA does not further strengthen the users to obtain responsive reasons for why the automated decision is right or fair. At best, the AIA offers a more limited obligation of explainability or intelligibility, whereby the emphasis is placed on the developer to build systems that are understandable to their users.

To the extent that public bodies may use such systems in ways that create legal effects for individuals, it appears problematic that AIA would draw a distinction in this way.⁶⁰⁵ In its practical effects, Article

⁶⁰³ EU AI Act, Article 13, Date of entry into force: 2 August 2026.

⁶⁰⁴ Melanie, Fink and Michèle Finck, 'Reasoned A(I)Dministration: Explanation Requirements in EU Law and the Automation of Public Administration' (2022) 47 *European Law Review* 376.

⁶⁰⁵ Lyria Bennett Moses, 'How to Think about Law, Regulation and Technology: Problems with "Technology" as a Regulatory Target' (2013) 5 *Law, Innovation and Technology* 1.

13 reinforces the status quo to deny individuals stronger rights and remedies that already exist under the data protection law, while it induces further imbalances between the obligations of public bodies and individuals subject to their decisions, without the possibility of review or remedy.

While the AIA is based on a system of risk assessment, procedural abuses cannot be judged solely by 'risk', as users may not fully understand the risks without additional training or knowledge of these systems.⁶⁰⁶ In this regard, the EU case law does not appear to have significantly influenced the EU's role and private sector approach on these issues.

5.5.2 The Canadian Experience

In 2020, the Canadian government issued a policy guideline called the "Directive on ADM". The Directive states that affected individuals are entitled to a "meaningful explanation" of *how* and *why* automated decisions are made, and on what legal or other basis.⁶⁰⁷ For example, the case of *May v. Ferndale Institution* does provide a potential insight into how future courts might assess lack of transparency issues under the directive guidelines.⁶⁰⁸ This case concerned an automated risk weighting system used to categorise prisoners transported from medium versus maximum security prisons. The Canadian court determined that the failure to disclose to the individuals affected details of the data input into the risk scoring system constituted a breach of the administrative law requirement of procedural fairness and transparency. The substance of the court's ruling was to impose a duty of notification, equivalent to the EU doctrine of the duty to give reasons, of the factors underlying a decision made or assisted by AI or algorithmic systems.

⁶⁰⁶ Yee-Fui Ng et al, 'Revitalising Public Law in a Technological Era: Rights, Transparency and Administrative Justice' (2020) 43(3) University of New South Wales Law Journal 1041. Discussing linkages between public law frameworks of administrative law, anti-discrimination law and information law, and paths for law reforms. See also Moira Paterson, 'The Uses of AI in Government Decision-Making: Identifying the Legal Gaps in Australia' (2020) 89 Mississippi Law Journal 647.

⁶⁰⁷ *ibid.*

⁶⁰⁸ *May et al v Ferndale Institution et al* (2003) BCCA 536.

In addition, under the leading *Vavilov* decision -the benchmark case on Canadian administrative law, all administrative DM must be justified as well as transparent, specifically by ensuring that all legal issues and rights of affected parties are taken into meaningful account.⁶⁰⁹ This thicker standard of judicial review obliges public authorities to provide “responsive reasons” that can be meaningfully reviewed by courts in relation to human acts of public administration.⁶¹⁰

The *Ferndale* judgment also brings Canadian case line with evolving expectations that a public body will have to disclose all, or the most relevant components of AI or algorithm predictions influencing a final decision to satisfy procedural fairness requirements. However, this ruling does not require the threshold of disclosure that public bodies will have to satisfy for transparency and reason-giving requirements under Canadian law, following the recent Canadian Directive on AI in ADM. As it stands, there is considerable uncertainty around how procedural fairness requirements applicable to ADM will be assessed, together with Canadian law principles on substantive review.

5.5.3 Australia’s Initiatives to Regulate ADM Transparency

Australia has issued some initiatives regarding AI transparency and accountability, most notably the Digital Service Standard. Developed by the Digital Transformation Agency, the Standard advocates for openness in government services. Additionally, citizens can use the Freedom of Information legislation to request information about ADMP. The Data Availability and Transparency Act (2022) also introduces a requirement for Commonwealth bodies to share public sector data with accredited users, albeit it does not specifically address the public disclosure of ADMP.⁶¹¹ The Australian Law Council has made recommendations for legislative amendments to mandate public disclosure of AI arrangements.

⁶⁰⁹ *Canada (Minister of Citizenship and Immigration) v. Vavilov*, 2019 SCC 65.

⁶¹⁰ Paul Craig ‘Reasonableness, Proportionality and General Grounds of Judicial Review: A Response’ (June 19, 2021) 2 *Keele Law Review* 1-24.

⁶¹¹ Data Availability and Transparency Act 2022 Available at: [Federal Register of Legislation - Data Availability and Transparency Act 2022](#)> last access on 2 October 2024.

The Australian Law Council believes that transparency and fairness are essential when the government uses ADM. The Council recommended that the government should publish all processes for the use of ADM, including sufficient information to enable a broad understanding of how ADM operates.⁶¹² This includes publishing the results of any suitability assessments, the algorithms and datasets used, and the rationale for the design of the system.

As a result, the Australian legal framework must take these suggestions in considering the evolution of AI regulations. This seems to ensure that AI arrangements are transparent, individuals are notified when AI is involved in DM, automated decisions are explicable, and individuals have access to a fair and independent RP.

5.5.4 Lessons Learned From Comparator Countries

As explained above, the EU's approach emphasises ethical principles such as transparency, fairness and non-discrimination by including them in the regulatory framework with a strong emphasis on oversight and enforcement. The EU states primarily use the GDPR and the upcoming AIA. The GDPR provides individuals with rights such as being informed about automated decisions and seeking human intervention, yet these are often constrained to decisions with significant legal effects.

Building on the GDPR's foundation, the AIA introduces a risk-based regulatory approach, focusing on HRAIS with transparency obligations, especially for public bodies' use. While the AIA aims to enforce more explicit transparency requirements, such as those in Article 13, which demand that AI systems be interpretable to users, it does not substantially advance beyond existing GDPR obligations. The distinction between AI providers and users may limit public bodies' accountability in DM. The AIA reflects a comprehensive attempt to balance transparency and accountability across sectors but requires continuous refinement to align with EU principles and ensure effective enforcement.

⁶¹² Ibid.

Additionally, the EU's AI regulations explained above seem insufficient to consider the lack of transparency in automated decisions issued by public bodies.⁶¹³ However, some further steps have been taken to define and qualify how such regulations would apply to public sector implementation of ADM. For example, the law in France, an EU state, mandates greater transparency for ADM systems, including requiring the disclosure of source code used in ADM systems, and this requirement extends to government systems under the Digital Republic Law.⁶¹⁴

The Canadian DADM attempts to minimise the lack of clarity by imposing an explanation requirement at the impact assessment level. Officials are expected to account more fully when the decision in question involves a legal or regulatory action, for instance, the denial of a right or benefit.⁶¹⁵ However, this attempt to place the requirement 'to explain' from weaker to stronger reasons, giving requirements, seems to create various challenges. As noted in the EU context, public authorities may struggle to 'convert technical bases for decisions to explanations that are both understandable and that can also be interrogated'.⁶¹⁶

The distinction drawn by the Canadian directive is between the interpretability of the technical basis of an ADM and the understanding of the logic behind a prediction or a decision made by ADM systems. The standard of explainability may only require that public officials are given training or techniques to explain the prediction, but not the model itself.⁶¹⁷

In Australia, beyond its currently limited governmental regulation, a variety of voluntary standards, principles and guidelines have been or are being developed by the Australian government. For

⁶¹³ Ulrik BU Roehl and Morten Balle Hansen, 'Automated, Administrative Decision-Making and Good Governance: Synergies, Trade-Offs, and Limits' (2024) 84 *Public Administration Review* 1184.

⁶¹⁴ Edwards, Williams and Binns (n 638).

⁶¹⁵ Treasury Board of Canada Secretariat, *Directive on Automated Decision-Making*, (Ottawa: Government of Canada, last modified 1 April 2021) Available at [Directive on Automated Decision-Making- Canada.ca](https://www.canlii.org/en/canlii/other/tbcsa/2021/04/01-directive-on-automated-decision-making) last access on 18 September 2024.

⁶¹⁶ Shea Coulson, 'How Artificial Intelligence Will Change Administrative Law: The Government of Canada's Directive on | CanLII Connects' (*CanLII Connects*, 2005) <<https://canliiconnects.org/en/commentaries/91298>> accessed 18 September 2024.

⁶¹⁷ *Ibid.*

example, the 'Artificial Intelligence Ethics Framework' to issue standards or guidelines on ADMPs guides businesses and governments to responsibly design and implement AI systems and support the practical application of the ethical principles, such as fairness, transparency, explainability, and accountability. In order to ensure these principles, the Ethics Framework standards have focused on some practical steps, which are impact assessment, risk assessment and RP.⁶¹⁸

5.6 Chapter Conclusion

This chapter analysed the concept of transparency through various lenses, including the duty of candour, disclosure of information, and the provision of reasons for decisions. It compares two distinct cases: one involving human DM (*SS v North East Lincolnshire Council*) and another concerning an ADM system (the *Pantellerisco* case). Through these comparisons, the chapter underscored the challenges of applying traditional transparency principles to ADM systems, which often lack human input and involve complex algorithms. The chapter further highlighted the role of expert evidence in judicial review and the potential conflict between transparency and privacy rights.

The chapter underscored the need for both technical and legal solutions to enhance transparency in ADM. It suggests that technical solutions should focus on explaining the internal processes of ADM systems, while legal solutions should involve making algorithmic transparency standards mandatory and strengthening existing regulations. The chapter concluded by emphasising that addressing the issues of transparency and black box mechanisms in ADM is essential for ensuring fairness, accountability, and public confidence in ADMPs.

Based on the discussion about the theme of transparency in the ADM RP, it can be concluded that mechanisms of review and addressing ADM issues have remained unregulated in the UK, despite the

⁶¹⁸ Dawson D and others, 'Artificial Intelligence Australia's Ethics Framework: A Discussion Paper' (2019), Data61 CSIRO, Australia. Available at <https://consult.industry.gov.au/strategic-policy/artificial-intelligence-ethics-framework/> last access on 31 March 2025.

availability of documents and cases in relation to different areas of law outside of administrative law. One reason for this is that ADM issues are relatively new to the UK's law, in addition to the barriers to accessing judicial review, such as cost, time, and standing that come into play in practice. Hence, it is not surprising that most cases under review have posed intractable challenges for judicial review in different areas of law.

Ultimately, the chapter argued that the UK can benefit from experiences from other jurisdictions, such as the EU, Canada and Australia. Overall, while these jurisdictions all demonstrate growing commitments to transparency, explainability and risk-based oversight for public-sector ADM, current frameworks remain fragmented and under enforced. This highlights the universal nature of emergent challenges in this regard, and signals the urgent need for clearer obligations, stronger accountability mechanisms, and practical standards to ensure meaningful transparency and rights protections in ADM.

More discussion and explanation of the ADM issues of review are explained in the next chapter under the other themes ('regulatory gap' and 'expertise gap') through the results of qualitative documentary analysis.

Chapter 6

Theme 2: Regulatory Gap

6.1 Introduction

Building upon the explanation of transparency issues in ADM judicial review outlined in the previous chapter, this chapter focuses on another critical challenge: the regulatory gap in the UK. As ADM continues to evolve and integrate into various sectors, the absence of comprehensive regulatory frameworks becomes increasingly apparent. This regulatory gap poses significant challenges to the ethical and lawful deployment of ADM systems and raises concerns about accountability, fairness, and public trust. Understanding these regulatory gaps is vital for determining potential risks and addressing challenges of public rights.

The thematic analysis undertaken in this research reveals several issues behind the lack of regulation of the rapid developments in ADM technology in the UK. Based on the discussion in Chapter 3, these include insufficient oversight mechanisms, uncertainty concerning the legal basis due to interpretation difficulties, lack of clear accountability and determining responsible parties, and limited and insufficient types of redress. By identifying these gaps, this chapter aims to highlight the need for robust regulatory reforms and to provide insights for efforts seeking to close these gaps.

Such efforts are essential to align ADM systems with ethical and legal standards and to position the UK as a leader in ethical AI governance. This chapter begins by identifying the meaning of the 'regulatory gap' as explained by legal analysts. Second, it identifies the main critical challenges of ADM review related to this gap, with a detailed analysis of each challenge. After explaining such challenges, the analysis elaborates on some regulatory suggestions and proposals from other aspects of law and other jurisdictions that have experienced similar issues and challenges in the UK.

6.2 Identification of the ADM Regulatory Gap in the UK

6.2.1 Overview

In general, a ‘regulatory gap’ refers to ‘the lack of effective regulation,’⁶¹⁹ or when the issue facing regulators is that existing regulations are insufficient to cover and regulate new and emerging situations.⁶²⁰ In many areas, analysts have notified of a regulatory gap concerning AI and related technologies, whereby existing regulatory frameworks may not adequately address new circumstances arising due to the use of such tools in various applications.⁶²¹ Regulatory gaps are usually attributed to the inability of legislators to provide comprehensive laws that account for every situation, resulting in either a complete or partial absence of necessary legal provisions.⁶²²

When considering the regulatory gap in ADM, the first task is to define the nature and scope of this gap, which entails the analysis of applicable public law principles and regulations, and administrative law rules and ethics. In order to undertake this analysis, it is important to explain what these rules are and apply them to the ADM situations to identify any potential gaps. Firstly, the basic principles of administrative law, as explained in Chapter 3, include that the public body, in order to achieve the basic general goal of administrative justice, should: have the jurisdiction to make a decision; not delegate discretion; follow the correct procedure so that it is not biased; provide reasons for the decision. Additionally, while the discussion in this section focuses on particular existing laws and principles in reviewing cases against public bodies using ADM, it is important to consider the broader administrative principles of transparency, accountability, and fairness.

⁶¹⁹ Jeffrey David Iqbal and Nikola Biller-Andorno, ‘The Regulatory Gap in Digital Health and Alternative Pathways to Bridge It’ (2022) 11 *Health Policy and Technology* 100663.

⁶²⁰ Stuart Bell and others, ‘New Technologies’ in Stuart Bell and others (eds), *Environmental Law* (10th edn, Oxford University Press 2024) 591.

⁶²¹ Anatoliy Kostruba and others, ‘Legal Gaps: Concept, Content, Problems of the Role of Legal Doctrine in Overcoming Them’ (2023) 44 *Statute Law Review* 1.

⁶²² *Ibid.*

In this regard, Cobbe conducted a study that discussed the application of English administrative law and data protection regulations to ADM systems in the public sector. Cobbe highlighted several gaps and defects in administrative law concerning the regulation of ADM, including the primary concern of a lack of clarity regarding how administrative law applies to ADM, particularly systems employing AI and ML.⁶²³ For example, issues such as unlawful sub-delegation, fettering discretion, and difficulties in providing reasons for ADM decisions are currently unclear in ADM. Cobbe argued that due to difficulties in applying administrative law principles in this new context, research is needed around the question of sub-delegation, both in terms of when it is appropriate for a nominated decision-maker to delegate DM (in whole or in part) to a machine.⁶²⁴ ADM ambiguity extends to transparency and accountability, as algorithmic opacity makes it challenging to understand and evaluate ADM DMPs, thereby making it more challenging to hold decision-makers accountable, which hinders judicial review, as discussed in Chapters 5 and 7.⁶²⁵ Furthermore, Cobbe argues that the existing legal standards and review mechanisms, primarily designed for traditional DMPs, struggle to effectively address opaque ADM.⁶²⁶

Similarly, Adam Harkens studied fairness in AI and ADM with particular regard to the issue of the evident regulatory gap in the UK system. Harkens argued that the inherent trade-offs between different notions of fairness, compounded by policy choices made by public bodies, emphasise the absence of clear legal and ethical guidelines.⁶²⁷ This lack of regulation allows for inconsistencies and potential biases, impacting individuals' rights and access to justice. Without a comprehensive framework, the existing laws and regulations may not adequately address the unique challenges posed by ADM.⁶²⁸

⁶²³ Cobbe (n 192).

⁶²⁴ Ibid.

⁶²⁵ Ibid.

⁶²⁶ Ibid.

⁶²⁷ Adam Harkens, 'Fairness in Algorithmic Decision-Making: Trade-Offs, Policy Choices, and Procedural Protections' (2019) 1 *Amicus Curiae* 84.

⁶²⁸ Ibid.

The concerns raised by Harkens, such as the potential for biased decisions and a lack of transparency, highlight the need for regulatory mechanisms to ensure accountability and oversight. The current separated legal approach, relying on data protection laws and administrative principles, may not be sufficient to address the broader implications of algorithmic systems on fairness and due process.⁶²⁹ Harkens mentioned examples of EUSS and UC automated systems that demonstrate how design choices and policy considerations can influence the outcomes of these systems. Harkens thus emphasised that there is a need to bridge the regulatory gap by clear standards and independent evaluation to prevent illegal outcomes and issues.

Questions arise in regard to whether the UK public standards have worked effectively in reviewing and addressing ADM cases in administrative law. Research and studies concerning these questions are necessary, but there is a limited number of analyses of administrative law standards in ADM judicial review in the UK.⁶³⁰ Therefore, this chapter reveals that the documents involved a broader focus, including theoretical perspectives and cases collected for the purposes of this study (Appendix 1).

The main characteristic of the documents collected in this theme is the frequent reference to **uncertainty in the legal basis, lack of clear accountability, limited types of redress, and interpretation difficulties**. Accountability in this regard requires adequate avenues for people to challenge ADM systems, together with effective enforcement mechanisms and the possibility of sanctions. The following section considers these gaps in greater detail.

6.2.2 Insufficient existing legal frameworks

The documentary analysis undertaken in this study revealed that most of the related sources explicitly indicated there was a 'regulatory gap' regarding review and addressing ADM in the UK. Some documents refer to its meaning as insufficient existing legal frameworks to address unique challenges related to automated decisions. In the [GV4] report about consultation outcomes with experts in law

⁶²⁹ Ibid.

⁶³⁰ Cobbe (n 192).

and government response, it refers to "regulatory gaps" primarily in the context of AI regulation. These gaps have been represented in this document as areas where existing laws and regulations do not address the challenges and risks occurred by AI technologies and ADM.⁶³¹ This also can be noted in situations where the responsibility for controlling AI risks is unclear, or when these risks fall outside the defined scope of any single regulatory body.⁶³² Additionally, the document highlights concerns that the rapid innovation in AI means that new technologies and ADM systems can emerge quickly, which may exceed the existing regulatory framework and create further gaps.⁶³³

It is beneficial to explain the gap in relation to the judgments of cases and judges' statements. They usually reflect the situation regarding the issues that impact particular stakeholders and indicate the regulatory gap from their perspectives. Lord Sales provided a statement summarising the main issues in a court [JS1], indicating difficulties in applying existing legal frameworks, as the current legal frameworks, both in administrative law and data protection, may be inadequate for ADM issues.⁶³⁴ Lord Sales advocates for careful consideration of existing doctrines (like delegation of authority and implied powers) and the potential need for legal reform to effectively regulate this area.

Furthermore, as explained above, 'administrative DM is traditionally regulated by the Administrative Court applying principles of administrative law in judicial review.'⁶³⁵ However, Lord Sales in [JS3] highlighted a crucial tension in regulating ADM between established administrative law and the newer data protection framework. Administrative law, traditionally focused on judicial review of public authority decisions, operates with distinct principles and procedures compared to the data protection

⁶³¹ Innovation and Technology the Secretary of State for Science, 'Pro-Innovation Approach to AI Regulation : Government Response to Consultation' (GOV.UK, 2024) available at [A pro-innovation approach to AI regulation: government response - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/a-pro-innovation-approach-to-ai-regulation) accessed on 6 March 2025.

⁶³² Ibid.

⁶³³ Ibid.

⁶³⁴ Lord Sales, 'Algorithms, Artificial Intelligence and the Law' in The Sir Henry Brooke Lecture for BAILII (2019) available at [Algorithms, Artificial Intelligence and the Law \(supremecourtuk.co.uk\)](https://www.supremecourtuk.co.uk/algorithm-artificial-intelligence-law) accessed on 11 Mar. 25.

⁶³⁵ Lord Sales, 'Information Law and Automated Governance - Keynote Address at Information Law Conference ' (2023) UK Supreme Court available at [Information Law and Automated Governance L Sales keynote address Information Law Conference April 2023 4063da5bfe.pdf \(supremecourt.uk\)](https://www.supremecourtuk.co.uk/information-law-automated-governance-sales-keynote-address) accessed on 4 March 2025.

regime established by the GDPR in the UK. This difference creates challenges for courts reviewing ADM. Lord Sales stresses that the core of the issue in reviewing ADM is a regulatory gap, given that many legal obligations concerning ADM come from data protection law, not administrative law.⁶³⁶

This is evident in cases involving challenges to automated systems. He gave an example *Bridges v Chief Constable of South Wales*,⁶³⁷ where the Court of Appeal did not primarily rely on administrative law principles to find infringement of Article 8 ECHR and a breach of public sector equality duty. Instead, the focus was on data protection aspects, the opacity of the system, the lack of safeguards, and discriminatory biases within the algorithm. The Court's scrutiny went beyond the traditional administrative law review, delving into the technicalities of the technology and its discriminatory impacts.

By analysing Lord Sales' statement [JS3], the difference in regulatory frameworks impacts judicial review in several ways. First, the initial assessment often lies with regulatory bodies like the Information Commissioner's Office, not directly with courts, which only become involved on appeal. Second, data protection cases necessitate specialised procedural approaches and types of evidence (technical expertise and statistical data), which are beyond the traditional scope of administrative law.

The Court reviews whether a public authority's decision is so unreasonable as to be unlawful, but does not ask itself whether the decision was wrong – nor even usually in domestic law challenges whether it was disproportionate. There is ordinarily no oral evidence. There are sometimes experts, though this is the exception rather than the rule. There is ordinarily no order for disclosure and inspection of documents. The Administrative Court is capable of determining disputed facts, but the starting point

⁶³⁶ Ibid.

⁶³⁷ *Bridges v South Wales Police* (n 334).

is that the Court will consider the factual material before the decision-maker, at the time of the impugned decision.⁶³⁸

Furthermore, Judge Wright's statement [JS2] regarding challenging UC automated decisions repeatedly highlighted the complexity and intricacy of the UC regulations, specifically concerning earned income calculations (regulations 54 and 61).⁶³⁹ He spent significant time deciphering these regulations and their implications, and noted the difficulty in applying and interpreting the law. This seems to demonstrate the lack of clear laws that can regulate the use and review of ADM even for judges.

Considering the reality of such challenges through looking at current cases, the judges' conclusion was that the existing legal framework comprised common law and primary legislation (like the Data Protection Act 2018). Judges have emphasised related challenges in cases such as *Bridges v South Wales Police* [CJ3].

The secondary legislation (codes of practice) and SWP's local policies are insufficient for judges to consider the case, and they found critical deficiencies in the clarity and precision of the legal framework regarding two key issues. For the first, **who can be placed on a watch list**, the existing framework lacked clear, objective criteria for determining who should be included, leaving excessive discretion to the police. For the second, **where AFR can be deployed**, there were also insufficiently defined parameters regarding the locations where AFR could be legally deployed.

The judges found that these unspecified areas of discretion meant that the system did not satisfy the 'in accordance with the law' requirement for justifying interference with Article 8 in ECHR (right to respect for private and family life). While recognising the existing legal materials, the court ultimately

⁶³⁸ Lord Sales (n 460).

⁶³⁹ Judge Wright, 'Statement and Judgement in *JN v SSWP (UC)*' (2023) UKUT 49.

https://assets.publishing.service.gov.uk/media/6560d5e91fd90c000dac3ba3/2023_AACR_7ws.pdf accessed on 16 March 2025.

determined that they did not provide a sufficiently clear and predictable framework to safeguard individual rights in this specific context.

The JCWI's challenge against the Home Office's use of an automated streaming tool filtering visa applications based on nationality claimed that the system was discriminatory and unlawful.⁶⁴⁰ The JCWI brought a judicial review in the High Court, but the claim was dismissed. The issue has apparently not been addressed for affected people since 2019, and the Home Office has not yet responded to the case. A lack of established case law under the current legal framework creates difficulty for courts.⁶⁴¹

The *Khan Properties Ltd v HMRC* case illustrates this well. The court had to analyse whether an automated penalty system complied with the existing statutory framework, leading to a need for legislative clarification rather than relying on pre-existing administrative law principles.⁶⁴² The absence of readily applicable precedents in this new area created uncertainty for courts reviewing the legality of ADMPs. The result is that the courts must effectively complement the principles and procedures of administrative law and data protection law. Lord Sales also suggested that Parliament must change the law in order to fill the existing regulatory gap.⁶⁴³ Additionally, the *Ofqual* [CJ6] case demonstrates the difficulty of consistently applying legal precedents in cases involving complex algorithms.⁶⁴⁴ The **lack of established precedents** specific to algorithms makes the consistent application of legal principles across cases challenging.

6.2.3 Interpretation Difficulties in Applying Existing Laws

Professor Andrew Le Sueur provided written evidence to Parliament relating to technological developments within government and the impact of these on Parliament and the legislative process

⁶⁴⁰ *R (Joint Council for the Welfare of Immigrants) v Secretary of State for the Home Department* (2019) EWHC 452.

⁶⁴¹ Lord Sales (n 460).

⁶⁴² *Khan Properties Ltd v Revenue & Customs*, First-tier Tribunal (Tax) [2017] UKFTT 830.

⁶⁴³ Lord Sales (n 460).

⁶⁴⁴ *Ofqual v Information Commissioner: [2023] UKUT 253 (AAC)* (n 551).

[EX3].⁶⁴⁵ The inquiry has questions about ADM answered and written by Sueur (a legal expert in constitutional law). There are regulatory gaps that may affect the role of judicial review from various aspects, which can be observed from answers to the following questions. Firstly, the lack of a clear legal basis for ADM creates uncertainty about the adherence to the rule of law, legality and procedural fairness (questions in Sections 7, 8, and 9 [EX3]).

‘Question 7. Can automation enhance compliance with the rule of law?’

‘Question 8. Will automation lead to a shift from administrative discretion and judgement to rule-bound decision-making?’

‘Question 9. What is the legal basis for automated decision-making?’⁶⁴⁶

It can be observed from these questions that if courts lack clear legislative guidance to assess the lawfulness of ADMPs, challenges to ADM decisions may struggle to establish a basis for judicial review. Secondly, a question in Section 10 [EX3] indicates a major challenge to judicial review (the delegation of power to computers).

‘Question 10. Does automation involve the delegation of executive power to a computer?’⁶⁴⁷

Sueur answered that the uncertainty over whether delegating DM authority to an algorithm constitutes an unlawful delegation of governmental power seems to indicate the need for a more detailed legal framework. Additionally, the absence of a clear legal requirement of a right to know or object to ADM (explained in the previous chapter) limits individuals’ ability to even initiate a judicial review process (Question 11).

⁶⁴⁵ Professor Andrew Le Sueur, ‘Written Evidence to Constitution Committee (LEG0036) “Legislative Process Inquiry”’ (*UK parliament*, 25 January 2017) <<https://committees.parliament.uk/writtenevidence/76602/pdf/>> accessed 6 April 2025.

⁶⁴⁶ *Ibid.*

⁶⁴⁷ *Ibid.*

‘Question 11. Should there be a right to know about or object to government decision-making by automated means?’⁶⁴⁸

This deficiency also affects parliamentary scrutiny, as legislators lack the mechanisms to ensure that automated systems operate fairly and transparently. The last observation from this important evidence is the suggestion to establish a ‘digital law’ which directly refers to the regulatory gap concerning ADM in the UK.

The Alan Turing Institute’s written evidence [EX5] also provided specific notes regarding the gap of AI regulations in the UK. For example, the document explained that despite the GDPR’s intent for a ‘right to explanation,’ it practically offers a ‘right to be informed,’ which is limited by trade secret protections. Therefore, the existing regulations are insufficient for ensuring transparency, and the current legislation offers inadequate protection for individuals. It added that there is limited focus on the ethical and legal dimensions, even though technological research prioritises interpretable algorithmic methods. As a specific example of the discussion in this document, it was observed that:

Current safeguards within the GDPR are narrow, often not applicable unless decisions rely solely on automation and have significant effects. So, there is a need for new procedural ways to challenge algorithmic decisions without assuming quantifiable individual harm. [EX5]

The regulatory gap has significant implications, potentially leading to difficulty for the courts to assess ADM. This conclusion can also be observed from the report ‘*Reforming the law around the use of automated and assisted DM by public bodies*’ [IN10], wherein the Justice Lab noted that there are three key dimensions of ADM regulation:

⁶⁴⁸ Ibid.

Existing law is unhelpful in assessing the procedural fairness of ADM/ASDM systems under the common law of judicial review. UK case law on the application of Article 22 is non-existent – as a result, uncertainty persists. In the absence of reinterpretation by case law or the provision of detailed statutory definitions, Article 22 provides inadequate protection ... Even where Article 22 applies, it only provides individuals with the right to have the decision made in their case reconsidered, or to ask for a new decision to be made not using solely automated processing. As such, it only provides a procedural, rather than a substantive remedy.⁶⁴⁹

Therefore, the technical legal contributors to the report criticised the current court procedures, which are not developed enough to keep up with the developed ADM issues:

Courts tend to assess the fairness of decision-making processes according to their resemblance to existing court procedures. This approach is insufficiently nuanced to assess the fairness of ADM/ASDM systems. Existing mechanisms for challenging decisions made by ADM/ASDM are under-developed.⁶⁵⁰

Furthermore, the ADM regulatory gap as a challenge in judicial review in the UK is typified in a report from the British Institute of International Comparative Law, which organised the event '*Contesting AI explanations in the UK*' conference on 24 February 2021. The panellists in the event provided a diverse array of cases and examples of AI and ADM issues to support their arguments. The discussion revealed that:

Existing legal frameworks, such as data protection laws (including the “right to explanation”), are deemed insufficient to effectively address the unique challenges posed by AI. The existing laws are often described as retrospective, focused on

⁶⁴⁹ Byrom Natalie, 'Reforming the Law Around the Use of Automated and Assisted by Public Bodies: Report from a Technical Legal Workshop' (*Justice Lab* 2021).

⁶⁵⁰ *Ibid.*

explaining decisions after they've been made, rather than proactively addressing potential harms before they arise. Public administrative law and anti-discrimination law are cited as somewhat relevant but insufficient to cover the breadth of issues.⁶⁵¹

Moreover, a technical legal paper by Lilian Edwards, Rebecca Williams, and Reuben Binns exemplifies this gap [IN9]. It shows how **regulation fails to guide** judges in their review and address ADM issues.⁶⁵²

The report highlighted the lack of relevant case law and the inadequacies of existing legal principles for addressing the unique features of these systems (e.g., the narrow scope of Article 22 GDPR, particularly the lack of clear guidance on what constitutes a 'meaningful explanation'). The discussion in this workshop focused on the courts facing several challenges and issues in ADM judicial review related to defining and applying legal grounds, and several key points were identified in the report.

Firstly, it appears complex to determine whether an ADM system's decision falls within an institution's jurisdiction for ADM where the precise level of human involvement is ambiguous. Secondly, the permissible extent of delegation of DM authority to ADM systems should be defined by the law, and the law should determine when a decision can be made by technicians in a private company (supplying the system) rather than the public authority.⁶⁵³ These **uncertainties and ambiguities within existing legal frameworks** (i.e., data protection, equality law, judicial review, and procurement) pose inherent challenges for judicial review and assessment as applied to ADM systems.

In a study published by the government [GV4], it was about consultations with experts in the AI Safety Institute and tech leaders.⁶⁵⁴ The survey in this study was answered by consultants who identified general challenges in AI use and risk assessment and prevention. The survey included questions

⁶⁵¹ King's College London and BIICL, 'Contesting Automated Decision Making in Legal Practice: Views from Practitioners and Researchers' (2021) <https://www.biicl.org/blog/25/contesting-automated-decision-making-in-legal-practice-views-from-practitioners-and-researchers>.

⁶⁵² Lilian Edwards, Rebecca Williams and Reuben Binns, 'Legal and Regulatory Frameworks Governing the Use of Automated and Assisted Decision Making by Public Bodies' (2021) *Working Paper, Justice Lab* 26 July 2021.

⁶⁵³ *Ibid.*

⁶⁵⁴ Innovation and Technology the Secretary of State for Science, (n 617).

regarding issues of review and redress. By analysing the answers of the survey, it can be noted that all the consultants replied that the existing routes “to contest or seek redress for AI-related harms through **existing legal frameworks are not adequate**” [GV4].⁶⁵⁵ This note emphasises how it is difficult for both the judges and individuals to review and challenge decisions based on ADM systems.

6.2.4 Lack of Clear Accountability (Determining Responsible Parties)

Accountability here means the challenge in establishing legal liability in ADM systems.⁶⁵⁶ Based on the documents' analysis, it has been observed that some highlight accountability as an issue stemming from a lack of transparency, as discussed in Chapter 4, while others frame a lack of accountability as a legal defect and regulatory gap. For example, experts in PLP have submitted written evidence to the Science and Technology Committee regarding the ‘Sham Marriage AI tool’ [EX1]. It highlighted several challenges in reviewing and addressing ADM. In regard to the impact of the regulatory gap, there is a lack of accountability mechanisms to challenge automated decisions due to insufficient redress means and regulations.⁶⁵⁷

While safeguards exist, enforcement mechanisms are weak, and the vague phrasing of some legal provisions, for example the public interest test in FOIA, allows for inconsistent interpretation and application. Additionally, regarding the requirement of transparency explained in the previous chapter, the regulation of this requirement appears, at present, not compulsory for public bodies to engage with the ‘Algorithmic Transparency Standard’ (ATS). The evidence from PLP also indicates that the Data Protection and Digital Information Bill (discussed below) did not include any such requirements [EX1].⁶⁵⁸

⁶⁵⁵ Ibid.

⁶⁵⁶ Kroll (n 5).

⁶⁵⁷ Public Law Project, ‘Written Evidence ‘Governance of Artificial Intelligence (AI) (Inquiry)’ (GAI0069)’ (*UK Parliament*, 13 December 2022) <<https://committees.parliament.uk/writtenevidence/113825/html/>> accessed 5 March 2025.

⁶⁵⁸ Ibid.

The [GV1] report acknowledges that there is a lack of clear legal accountability for decisions made or informed by the AI use of algorithmic tools, which have contributed to misdiagnoses in health care.⁶⁵⁹

Some of the key technologies being deployed in health care are not owned by public bodies, which further weakens accountability. As a result, it can be difficult to know whether bias has been addressed in privately owned ADMTs, due to commercial confidentiality protections for private sector stakeholders, which decreases accountability.⁶⁶⁰

The recent Parliamentary report about the '*The Governance of Artificial Intelligence: Interim Report*' [GV12] illustrates that the issue of legal responsibility, liability, and accountability in relation to ADM systems involves some complexities. One of the main challenges is the increasingly global nature of supply chains for AI technologies themselves, which complicates the issue of regulation.⁶⁶¹ These supply chains often include a variety of components, like data centres, third-party data sources, and content delivery networks. This complexity makes it difficult to determine liability for any unsafe or harmful use of the technology, or to ensure compliance with governance frameworks designed to mitigate such risks.⁶⁶² As a result, determining who should be held liable when AI models and tools are misused by third parties to cause harm is complicated by the issue of who is responsible. Any case of misuse may involve numerous parties, and determining which party or parties is accountable is complicated by the complex nature of processes and components used in AI tools. There is a need for legal standards and new policies that clearly outline the extent of liability for developers or providers of these technologies.⁶⁶³

⁶⁵⁹ GOV.UK 'CDEI AI Barometer ' (*GOV.UK*, 23 June 2020) <<https://www.gov.uk/government/publications/cdei-ai-barometer/cdei-ai-barometer>> accessed 19 April 2025.

⁶⁶⁰ *Ibid.*

⁶⁶¹ Innovation and Technology Committee Science, '*The Governance of Artificial Intelligence: Interim Report*, (*UK Parliament*, 31 August 2023) <<https://publications.parliament.uk/pa/cm5803/cmslect/cmsstech/1769/report.html#heading-10>> accessed 7 April 2025.

⁶⁶² *Ibid.*

⁶⁶³ *Ibid.*

6.2.5 Insufficient Redress Mechanisms

The report [GV2] discussed the broader issues of algorithmic regulations. It highlighted that there is an obvious lack of clear legal standards for the public or civil society to challenge ADM or to seek redress. It also emphasises that there is a lack of regulatory framework in relation to ADM that provides redress for people affected.⁶⁶⁴ For example, *Johnson and others v. SSWP* [CJ5] highlighted a clear regulatory gap, leading to **limited redress** where, after finding decisions to be flawed, the judge faced additional challenges regarding remedies, requiring a separate hearing to address these issues before the judge was able to make a determination:

‘The language of the regulations cannot be distorted to give effect to a design which may have proceeded on a basis which is wrong in law.’ [CJ5]⁶⁶⁵

The document [GV4] is based on technical experts’ evidence answering consultation questions and was presented by the Secretary of State for Science, Innovation and Technology to the Parliament. In response to the question “Do you agree that current routes to contest or get redress for AI-related harms are adequate?”, the experts identified that existing routes “to contest or seek redress for AI-related harms through existing legal frameworks are not adequate”.⁶⁶⁶ This study indicated that judicial review with its current regulation would not be a suitable means to solve ADM issues.⁶⁶⁷

A research paper to PLP examined the potential risks associated with the UK digital immigration status system, such as the EU Settlement Scheme. In their analysis, Tomlinson and his team highlighted several issues, including the absence of readily accessible and effective legal redress mechanisms. This gap in particular may leave individuals without any means of redress for errors or injustices that may arise from the ADM system (whether due to systems themselves, or decisions *per se*). Such a lack of

⁶⁶⁴ Forum Digital Regulation Cooperation (n 457).

⁶⁶⁵ *Johnson and others v. SSWP* (n 104).

⁶⁶⁶ the Secretary of State for Science (n 617).

⁶⁶⁷ *Ibid.*

recourse is critical because it can result in individuals being unable to rectify decisions that could significantly impact their lives.⁶⁶⁸

Moreover, the inherent complexity of the digital immigration system presents additional challenges. The system's complicated nature can make it difficult for individuals to effectively challenge any issues in automated decisions. This difficulty can act as a barrier to justice, as individuals may feel unsure of how to start the redress process without legal guidelines. Consequently, it has been argued that people need to be protected by a more robust framework. It must ensure transparency and accountability, and provide clear ways for individuals to seek redress.⁶⁶⁹

6.2.6 Procedural and Cost Issues

The theme of the insufficiency of existing legal frameworks is central to the regulatory gap explained above, which affects the reviewing of ADM decisions **after** processing judicial review. However, there are challenges that affect the individual **before** the process of upholding the case in the court. For example, the complexity of reviewing ADM-based decisions within the typical three-month judicial review timeframe presents a significant challenge.⁶⁷⁰ Also, it was mentioned in the expert consultation document [GV4] that the challenges of redressing AI issues include the 'high costs of litigation in seeking redress.'⁶⁷¹ These conclusions appeared to affirm that the cost of litigation in seeking redress is high for AI-related harms.

The literature also addressed some procedural issues, such as a lack of metrics for assessing and evaluating ADM, and time limits. Cobbe argued that producing evidence within the statutory three-month time limit would constitute a significant obstacle in ADM cases. It seems that the legal time limitations to apply for a judicial review are a primary challenge, alongside the increased barrier

⁶⁶⁸ Joe Tomlinson and Alice Welsh, 'Digital Immigration Status: A Monitoring Framework' (*Public Law Project Research Paper*, September 2020) available at [PLP-Report-Digital-Immigration-Status.pdf](https://publiclawproject.org.uk/PLP-Report-Digital-Immigration-Status.pdf) (publiclawproject.org.uk) accessed on 7 October 2025.

⁶⁶⁹ *Ibid.*

⁶⁷⁰ Cobbe, Lee and Singh (n 85).

⁶⁷¹ the Secretary of State for Science (n 617).

concerning providing evidence in the case of weak transparency. Therefore, Cobbe argued that existing administrative law principles must be developed and strengthened to effectively address the unique challenges posed by ADM.

In particular, she suggested extending the time limit for judicial review applications in respect of ADM from three to six, nine, or even twelve months, and developing specific tools to exercise meaningful review.⁶⁷² Without extending the three month time limit, the ability to access justice would be at risk for those who are affected by the time to receive the necessary data and information about automated decisions.⁶⁷³

Yeung also mentioned concerns that affect the principle of the 'right to be heard' for people, such as a lack of human responsibility, expert participation, due process, and opportunities for contestation.⁶⁷⁴ This can be aggravated by the possible tendency of public bodies to consider automated decisions to be more accurate or unassailable, as explained in previous chapters.

The discussion above surrounding the issues in reviewing ADM has highlighted the presence of significant regulatory gaps, which align with the primary argument articulated in this chapter. In reviewing and addressing ADM, key challenges have emerged, including uncertainties in the legal framework, a lack of accountability, limited avenues for redress, and complexities related to cost and interpretation. The findings of the qualitative analysis of key documents in this field illustrate the identified regulatory deficiencies, in line with the broader arguments presented here. This highlights the urgent need for a comprehensive framework to effectively navigate and mitigate the inherent risks associated with ADMPs. The next section provides both specific and broader responses and proposes a framework applicable across different legal sectors to determine proper and effective solutions under the UK system.

⁶⁷² Cobbe (n 192).

⁶⁷³ Ibid.

⁶⁷⁴ Karen Yeung (n 3) 28.

6.3 Responses to the ADM Regulatory Gap

After outlining the issues of the regulatory gaps in AI and ADM in the UK through an examination of the expert evidence, judges' statements, and case analysis, it is crucial to highlight their proposals and the government's responses to these problems. These responses sometimes acknowledge that there is an existing gap in the regulatory framework for AI and ADMPs and propose solutions. This section illustrates the different proposals and solutions structured based on the sectors and the areas of law.

6.3.1 Policy and Institutional Developments

Before discussing the responses to the regulatory gap, it should be noted that recently the UK government has issued some rules and regulations in line with the UK GDPR and DPA principles and white papers that contain important strategies for AI and ADM. The Industrial Strategy White Paper 2017 is considered a cornerstone to put the UK at the forefront of the AI and data revolution, with the global progress in technology and AI in government.⁶⁷⁵ Furthermore, the GOV.UK website and the ICO are rich sources of rules and guidance regarding using the AI by the public bodies.

The UK government has created new bodies to support the use of AI, build the right infrastructure, and facilitate public and private sector adoption of these technologies.⁶⁷⁶ There are three key new bodies in this regard:

1. AI Council, an expert committee providing high-level leadership on implementing the AI Sector Deal.
2. Office for AI, which works with industry, academia, and the third sector to coordinate and oversee the implementation of the UK's AI strategy.

⁶⁷⁵ HM Government, 'Industrial Strategy: building a Britain fit for the future' (GOV.UK 2017) available at www.gov.uk/government/publications accessed on 21 March 2022.

⁶⁷⁶ GOV.UK (n 4).

3. Centre for Data Ethics and Innovation, which identifies the measures needed to make sure the development of AI is safe, ethical, and innovative.

While such innovative efforts that the UK government has invested to regulate AI and ADM must be acknowledged, the following documentary analysis examines the effectiveness of these efforts in practice with regard to addressing ADM issues. Additionally, it can be observed that there are few responses regarding administrative law *per se* from the government with regard to regulating and assessing ADM. Therefore, most of the collected documents that include attempts to respond to the ADM regulatory gaps are from other aspects of law, such as employment, criminal, and business law. However, it has also been observed that the regulatory gap issues also occur in other areas of law in the UK. Additionally, most of the legal solutions in the documents are still suggestions and recommendations from experts and academics in their studies and projects. The following sections focus on relevant reactions and responses to the regulatory gap in other aspects of law in the UK.

6.3.2 Documentary Analysis of Responses to the UK's ADM Gap

This section focuses on the attempts of other laws in responding to the gap in regulations that affect reviewing and addressing ADM. It can be noticed that the collected documents have adopted one of two ways (opinions) in responding to the regulatory gap. The first way is that the UK legal framework requires a new law to help address the ADM challenges in RP. The second way supports the existing systems and only calls for development and to improve the obligations in implementing them. Concerning responses to the ADM review challenge due to the regulatory gap, documents in the governmental collection from different areas of law have responded to this gap. For example, [GV12] mentioned above argues that the complexity of determining liability for harm caused by ADM systems can be resolved by sharing the responsibility among developers, providers, and users.⁶⁷⁷ To achieve

⁶⁷⁷ Innovation and Technology Committee Science, 'The Governance of Artificial Intelligence: Interim Report' (*UK Parliament*, 31 August 2023) <<https://publications.parliament.uk/pa/cm5803/cmslect/cmsstech/1769/report.html#heading-10>> accessed 7 March 2025.

this, the report stresses that it is crucial to establish clear legal frameworks for assigning liability. This intersects with tort law and product liability law.

6.3.2.1 Criminal and Policing Perspectives

From **criminal and policing** perspectives, the authors of the RUSI report [IN1] concluded that there is a need for **clear legal frameworks and code of practice of ADM** in policing to ensure compliance:

There appears to be increasing concern that existing structures are not fit-for-purpose in terms of the regulation and oversight of new algorithmic deployments ... The AI use of algorithms in policing raises important legal and ethical questions concerning data protection, human rights, and procedural fairness.⁶⁷⁸

The report calls for a comprehensive, formalised and independent system to scrutinize and oversee the application of algorithms in policing. This system should incorporate mechanisms to address bias, promote transparency, and uphold accountability at all levels. Establishing this regulatory framework demands a collaborative effort between law enforcement, data scientists, academics, and legal experts to develop and implement effective solutions. Only through such interdisciplinary collaboration can the UK adequately address the regulatory challenges and ensure responsible innovation in algorithmic policing.

In the same line, a judge in the **criminal and policing** field (in the *Bridge* case) relied on the “sensitive processing” of biometric data in automated facial recognition technology, based on article 8 of the ECHR [CJ3].⁶⁷⁹ The judge concluded that the use of this technology by the police is unlawful, and sets a benchmark for demonstrating compliance and conducting proper data protection.⁶⁸⁰ Additionally, the judge provided declaratory relief, which is a formal declaration stating that the police’s actions were unlawful due to the lack of a sufficiently clear and precise legal permission for the police to use

⁶⁷⁸ Babuta, Oswald and Rinik (n 559).

⁶⁷⁹ *Bridges v South Wales Police* (n 332).

⁶⁸⁰ *Ibid.*

this technology.⁶⁸¹ This indicated the judge's challenge in facing the regulatory gap, regardless of his ability to apply the existing laws and principles in his judgement.

6.3.2.2 Consumer Protection

From a consumer protection law perspective, the key issue in product liability involves the uncertainty over whether AI-integrated products are subject to the same liability rules as non-AI products. In the *'Study on the Impact of Artificial Intelligence on Product Safety,'* it was stated that **uncertainty in the law** creates challenges in determining if software should be categorised as a product or a service, potentially requiring changes to liability laws. As a result, claimants may encounter difficulties in court when seeking **compensation for damages** from AI-powered products, especially when third-party software is involved. This leads to uneven consumer protection between traditional and AI-enhanced items. Additionally, the real impact of these ambiguities on UK consumers is unclear due to the **lack of reported liability cases** involving AI products in the legal system.

6.3.2.3 Healthcare, Universal Credit, and the Absence of Redress

The healthcare sector has issued a number of reports that discussed the issues of the AI legal gap, such as providing remedies and redress in reviewing ADM used in healthcare cases. The report by PLP [IN2] examined whether there is a need for an official AI regulator, because ADM and other relevant technologies follow different processes depending on the sector.⁶⁸² Where the character of the decision pertains to public or consumer protection, privacy issues and data regulation typically come to the fore. The identified problem is that the process of redress and any remedies are not well designed legally, nor are they adapted to handle complaints or provide redress in cases of error, fault or breach of rights.⁶⁸³ Existing review bodies, such as the Parliamentary and Health Service

⁶⁸¹ Ibid.

⁶⁸² Mia Leslie, 'Developing AI Regulation: Findings from PLP's Roundtable' (*Public Law Project 2023*) Available at <https://publiclawproject.org.uk/content/uploads/2023/11/Roundtable-findings-report-1.pdf> accessed on 29 April 2025.

⁶⁸³ Ibid.

Ombudsman, lack the powers to provide remedies. As a result, the right of remedy or access to justice before an independent review body for decisions involving automation might be denied.⁶⁸⁴

The report suggests that there may be challenges in establishing a single and cross-sector AI regulatory body or ombudsman with investigative, monitoring or powers to resolve disputes or enforce remedies for harmed individuals. Instead, the report suggests that the power of existing authorities be extended, with the elaboration of new principles governing any rights, obligations, remedies, or liabilities relating to AI.⁶⁸⁵ This sectoral approach will allow each authority to build in-house expertise related to their relative spheres of policy action.

The PLP also issued another report about the use of AI in the UC system [IN4].⁶⁸⁶ The report suggested that to enhance the regulatory framework of ADM, it is crucial to legally consider the systematic approach in monitoring to ensure the commitments to the ethics and principles of laws, such as transparency and fairness.⁶⁸⁷

6.3.2.4 Preliminary Proposals for Solutions

Given the acknowledgements' lack of a clear redress mechanism described above, experts remain divided: some advocate for strengthening existing frameworks, while others argue for the establishment of a new regulation, as proposed by Professor Sueur. For the first group, the central argument revolves around the notion that existing legal frameworks, particularly data protection, non-discrimination, and human rights laws, already provide a foundation for regulating ADM.⁶⁸⁸ Elena and Richard posit that the primary challenge lies not in the absence of human rights laws, but rather in the complexities surrounding their effective implementation and enforcement.⁶⁸⁹ While it is not the role

⁶⁸⁴ Ibid.

⁶⁸⁵ Ibid.

⁶⁸⁶ Public Law Project 'Machine Learning Used to Stop Universal Credit Payments' (n 561).

⁶⁸⁷ Ibid.

⁶⁸⁸ Elena Abrusci and Richard Mackenzie-Gray Scott, 'The Questionable Necessity of a New Human Right against Being Subject to Automated Decision-Making' (2023) 31 *International Journal of Law and Information Technology* 114, 143.

⁶⁸⁹ *ibid*, 129.

of human rights law to regulate the problems regarding accountability and oversight of ADM, the current human rights laws are flexible enough to adapt in ADM cases.⁶⁹⁰ For example, Article 6 of the ECHR offers a crucial pathway for redress. The right to a fair trial implies a right to a reasoned decision; in an ADM context, this challenges black box systems where decisions are made without transparent logic. If a system denies a benefit or imposes a penalty without an explainable rationale, it arguably violates the procedural guarantees of Article 6, as the affected individual cannot effectively challenge a decision they do not understand.

Furthermore, Article 10 ECHR, which protects freedom of expression, is increasingly interpreted to encompass the right to access information held by public bodies. In the context of ADM, this underpins the argument for algorithmic transparency. If the state utilizes ADM to shape public discourse or allocate resources, Article 10 supports the citizen's right to know how those information flows are curated or restricted. Therefore, rather than inventing new rights, proponents argue that a robust application of Article 6 and Article 10 standards would compel public authorities to make ADM systems explainable and auditable by design.

However, Professor Sueur from constitutional law in [EX3] suggested establishing a new 'digital law' framework recognizing new rights related to ADM.⁶⁹¹ He argues that the systems and computer programmes should be considered 'law,' subject to Parliamentary review, and Parliament itself needs organisational change in order to adapt and improve its effectiveness concerning digital resolution, and addressing the gap between the existing laws and the suggested digital approach of review.⁶⁹²

While acknowledging the value of adapting existing human rights laws to address ADM, the view across various legal perspective appear to suggest that a new framework is more beneficial by having a set of new rules, encompassing both individual's rights, accountability, and oversight. With these

⁶⁹⁰ *ibid*, 143.

⁶⁹¹ *Le Sueur* (n 631).

⁶⁹² *Ibid*.

key elements, it provides a stronger more comprehensive foundation in which this research takes the same position with Professor Sueur's point of view by establishing a new law.

This research will demonstrate the rationale for aligning this research with a new ADM law, as articulated by leading experts, in filling the regulatory gaps. For example, Alan Turing experts in [EX5] argued that GDPR, while foundational, suffers from critical gaps. The absence of a clear right to explanation, coupled with its focus on individual redress and personally identifiable data, reduces the GDPR capacity to address broader ethical concerns like decisions causing harm irrespective of personal data processing.⁶⁹³ They emphasize that future legislative steps, especially in the post-Brexit UK, should close these gaps by establishing a legally binding right to explanation, in consultation with experts, and by developing new procedural mechanisms to challenge automated decision-making. This mechanism by Alan Turing concerns the need to balance between trade secret protections and public right to explanation and disclosure by filling the gap in the regulations, such as the limitations of the right of explanation in GDPR.⁶⁹⁴

Rebecca Williams discussed the need for 'regulatory verification' as a way to ensure fairness, accountability, and transparency in ADM used by public authorities. Williams suggested a "form of regulatory verification", as applied in the **Patent Office**, whereby the verifying entity would have access to commercially sensitive data to carry out necessary checks, in something similar to a "kitemark" system.⁶⁹⁵ This could offer a structured, expert-driven, and confidential approach, wherein an independent body reviews and certifies AI systems before they are used by public authorities. Implementing a similar AI regulatory body could help governments balance innovation, transparency, and fairness in ADM systems. The 'patent office' approach balances confidentiality and public interest by reviewing sensitive information privately while ensuring legal compliance. Additionally, patent examiners are technical experts and specialists in ML, ethics, and law, who can objectively evaluate

⁶⁹³ Alan Turing Institute (n 600).

⁶⁹⁴ *ibid.*

⁶⁹⁵ Williams (n 12).

algorithmic transparency and accuracy. For instance, patents are granted only when inventions meet legal standards and certify AI systems with a “kitemark” (trust label), ensuring that they comply with fairness and transparency regulations before public use.⁶⁹⁶

AI regulation can be compared to a patent office because both balance confidentiality and public interest by reviewing sensitive information privately while ensuring legal compliance. Just as patent offices handle trade secrets without exposing them, an independent AI regulatory body could audit AI models for fairness and bias without revealing proprietary training data. Additionally, patent examiners are technical experts who assess novelty and usefulness, similar to how AI regulators could include specialists in ML, ethics, and law to evaluate algorithmic transparency and accuracy. Lastly, like patents are granted only when inventions meet legal standards, an AI verification agency could certify AI systems with a “kitemark” (trust label), ensuring they comply with fairness and transparency regulations before public use.

6.3.3 Emerging UK Legislation

Expert evidence was produced to provide the government with legal suggestions to address the identified regulatory gap [CV9], leading to the articulation of the Nolan Principles as strong, relevant guidelines that do not need to be reformulated for AI, to solve ADM complexity and challenges. The Nolan Principles were proposed and discussed in the field of AI by the Committee on Standards in Public Life, which reported ‘Seven Principles of Public Life’ to the government: selflessness, integrity, objectivity, accountability, openness, honesty, and leadership. Three of these are particularly relevant to AI: openness, accountability, and objectivity. Administrative law can benefit from related Bills in regulating ADM in public bodies. Additionally, there are some important bills and mechanisms that have been concluded from conducting the documentary analysis of the UK government. UK business law has introduced great advances in terms of bills to regulate the issues of AI and business entities.

⁶⁹⁶ Ibid.

For example, the King's Speech in 2023 mentioned (A) the Data Protection and Digital Information Bill and (B) the Automated Vehicles Bill.

6.3.3.1 Data Protection and Digital Information Bill

This Bill reduces burdens on businesses and removes unnecessary barriers placed on scientific researchers by allowing businesses to protect personal data in more proportionate and practical ways than under the GDPR. This regime protects people by strengthening the ICO as a regulator, ensuring that it has the capabilities and power to challenge companies that breach data rules and ensuring it is more accountable to Parliament and the public. It is also anticipated that reforms based on this Bill will maintain high international data protection standards, so that businesses can trade easily with global partners like the EU and US, facilitating mutual market access for UK businesses [GV7].⁶⁹⁷

6.3.3.2 Automated Vehicles Bill

This Bill will provide clear legal liability to ensure the responsible party in smart self-driving vehicles. The Bill will hold the responsibilities of the companies that develop self-driving vehicles on roads rather than individuals. 'Once authorised, companies will have ongoing obligations to keep their vehicles safe, and ensure that they continue to drive in accordance with British laws.' [GV7]⁶⁹⁸ This Bill attempts to fill the gap in determining accountability issues that are usually faced by judges in the court but in private law.⁶⁹⁹

6.3.3.3 Public Authority Algorithmic and Automated Decision-making Systems Bill

This bill was proposed by Lord Clement-Jones in the House of Lords on 9 September 2024, and it is presently at the second stage in Parliament. If it becomes law, it will introduce new rules governing

⁶⁹⁷ 'The King's Speech 2023' (*GOV.UK*, 7 November 2023) <<https://www.gov.uk/government/publications/the-kings-speech-2023-background-briefing-notes>> accessed 11 March 2025.

⁶⁹⁸ *Ibid.*

⁶⁹⁹ *Ibid.*

ADM in the public sector.⁷⁰⁰ It would likely be very influential concerning how HRAIS will be governed across the UK.⁷⁰¹ In addition to its aim to improve the transparency explained in Chapter 5, one relevant aim of this Bill is to establish an independent dispute resolution service (Section 9, [GV17]), to ensure that aggrieved people have a clear path to challenge or seek redress for an ADM made by a public body. This appears to provide a more specialised and efficient mechanism for addressing challenges of review algorithmic DM, potentially alleviating the burden on traditional courts. Additionally, people might find it easier to challenge decisions, as there would be a more accessible pathway for specific cases.

The Secretary of State must ensure that the ability to:

(a) challenge a decision or class of decisions made by an algorithmic or automated decision-making system, or (b) obtain redress for a decision or class of decisions made by an algorithmic or automated decision-making system is available through an independent dispute resolution service appropriate to the nature of the public authority and the decision or class of decisions in question.⁷⁰²

Furthermore, the bill emphasises the importance of conducting an internal review by public bodies that use ADM:

‘Employees in public authorities which use algorithmic or automated decision-making systems must review, explain and oversee operations in accordance with the principles.’⁷⁰³

⁷⁰⁰ Mopé Akinyemi, ‘UK AI Regulation: Public Authority Algorithmic and Automated Decision-Making Systems Bill - Lexology’ *Burges Salmon LLP* (16 September 2024) available at [UK AI regulation: Public Authority Algorithmic and Automated Decision-Making Systems Bill - Lexology](#), accessed on 10 Mar. 25.

⁷⁰¹ Marcus Evans and Salma Khatab, ‘The UK’s Public Authority Algorithmic and Automated Decision-Making Systems Bill: Key Takeaways | Inside Tech Law | Global Law Firm | Norton Rose Fulbright’ *Inside Tech Law* (16 October 2024) available at [The UK’s Public Authority Algorithmic and Automated Decision-Making Systems Bill: key takeaways | Inside Tech Law | Global law firm | Norton Rose Fulbright](#) accessed on 11 Mar. 25.

⁷⁰² Public Authority Algorithmic and Automated Decision-Making Systems Bill 2024 HL.

⁷⁰³ *Ibid.*

It entails obligations to publish an impact assessment, undertake mandatory bias assessment, and maintain an algorithmic transparency record. These mechanisms would provide detailed information required to understand the operation of the ADMP for both the people and judges, if cases are brought to judicial review. In line with the Automated Vehicle Bill, this Bill would also determine the accountable party in ADM (i.e., AI actors):

AI actors should be accountable for the proper functioning of AI systems and for the respect of the above principles, based on their roles, the context, and consistent with the state of the art.⁷⁰⁴

It is worthwhile to observe regarding this Bill that it excludes ADM used in national security purposes and calculation, including for taxation and budgetary allocation, despite numerous cases already having been raised concerning violations of people's rights by such systems. In this case, the question arises of how these types of ADM can be regulated and assessed in order to protect people and give redress for individuals affected by errors and faults in these systems.

In the above light, judicial review of AI may provide a solution to the "gaps" in effective regulation of public sector ADM. Where broad and effective regulation of ADM is still lacking, it might be helpful to rely on courts to develop principles and standards of review to supplement the law, or "fill" a legislative gap.⁷⁰⁵ However, this research strongly supports the establishment of a single and comprehensive legal framework of AI and ADM across all aspects of law. This framework should cover the entire DM and RPs of administrative justice and other laws. It should define legal authority and expand the time limits for determining accountability. It is essential to mandate that public bodies must conduct impact assessments, adopt transparency standards, and determine the requirements

⁷⁰⁴ Ibid.

⁷⁰⁵ Yee-Fui Ng et al, 'Revitalising Public Law in a Technological Era: Rights, Transparency and Administrative Justice' (2020) 43(3) University of New South Wales Law Journal 1041.

of disclosure for these systems. It is also crucial to establish clear lines of accountability that involve the AI companies responsible for designing the technologies behind the operations of the ADM.

It is essential to develop collaboration among all stakeholders. It must include parliamentary consulting and the formation of regulations concerning AI, public bodies, technology experts (particularly AI designers and developers), and legal experts. This is to ensure that systems are developed in accordance with the law, rather than allowing the law to be shaped by technology. Such an approach will help safeguard rights and promote responsible governance in the era of AI, and prevent abuses of public service users.

By providing a mechanism for oversight, judicial review can ensure that ADMPs are examined for compliance with legal standards, thereby promoting accountability and safeguarding individual rights. Such critical legal developments can help clarify legal uncertainties, reinforce the rule of law, and enhance the overall governance of AI systems.

However, the qualitative documentary analysis in this chapter reveals that the challenges of ADM review are not limited to administrative law; rather, these themes of challenges are general across all UK legal jurisdictions dealing with AI and ADM. This calls for a more comprehensive and coordinated regulatory response. Therefore, the following section will explore the different approaches and experiences of other jurisdictions (the EU, Canada, and Australia) in regulating the challenges and issues surrounding ADM cases. It offers comparative insights to inform the development of a more effective regulatory framework within the UK.

6.4 International Responses to AI Regulatory Gap

6.4.1 The EU

6.4.1.1 General Regulatory Approach

The EU is currently rolling out numerous schemes aimed at mainstreaming AI tools in EU governance, and setting the parameters for the public administration systems of individual EU member states (i.e., this analysis pertains to the EU, which shapes the approach of member states' jurisdictions).⁷⁰⁶ Applications of this new technology are expected to increase in scope and complexity in various fields of EU policy making.⁷⁰⁷ Therefore, the EU has attempted to address varied applications of AI and big data, as well as the numerous actors involved, under a singular regulatory framework.⁷⁰⁸

The key elements of the EU's general regulatory framework pertaining to ADM aims to provide individuals with significant protections and control over their data. For example, the EU GDPR introduces several key provisions granting new rights to individuals, especially concerning data profiling techniques.⁷⁰⁹ Among these rights are that every 'data subject' has the rights to 'be notified of the existence of ADM',⁷¹⁰ and 'obtain 'meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject'.⁷¹¹

It is arguable that the data protection framework of the EU has become 'detached' from fundamental principles of law, in ways that limit the extent to which courts are willing to review the legality of ADM.

Paul De Hert argues that the wording of Article 22 of the GDPR should be revised to establish a more

⁷⁰⁶ Herwig CH Hofmann, 'An Introduction to Automated Decision-Making (ADM) and Cyber-Delegation in the Scope of EU Public Law' (Elsevier BV 2021) *Social Science Research Network*, Working Paper No.8.

⁷⁰⁷ European Commission, Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, *Brussels*, 21.4.2021 COM(2021) 206 final 2021/0106(COD), Article 5(1)(c), <https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0206>.

⁷⁰⁸ *Ibid.*

⁷⁰⁹ Klaus Wiedemann, 'Profiling and (Automated) Decision-Making under the GDPR: A Two-Step Approach' (2022) 45 *Computer Law & Security Review* 105662.

⁷¹⁰ Section 2(f), Article 13 GDPR

⁷¹¹ *Ibid.*

explicit right whereby it would ‘not be subject to a decision based on automated processing without meaningful human intervention, including profiling, which produces a significant effect on him or her’.⁷¹² Moreover, De Hert argues that a more unqualified obligation to implement these safeguards should be established as a general right and duty in all forms of ADM, irrespective of any exceptions permitted under the Regulations.⁷¹³

This wording of Article 22 would provide affected individuals with the ‘right’ to express their views on DM, the right to seek reasoned justification of the decision and the methods it was based on.⁷¹⁴ Additionally, individuals would have a meaningful opportunity to contest the final decision, regardless of any human intervention exercised by the data controller.⁷¹⁵

It is important to mention here that this framework tends to focus on ADM and legal concerns that apply to private sector DM.⁷¹⁶ A report analysing how EU courts and DPAs have applied the GDPR’s ADM provisions on ADM used by public sector, particularly Article 22, identified remaining legal uncertainties, highlighting the intersection of data protection law with other frameworks, to provide insights for regulators and practitioners.⁷¹⁷ Hence, in an effort to redress the lack of clarity and ineffective enforcement of the GDPR Article 22 provisions and wider implications of AI, the EU is currently negotiating the Artificial Intelligence Act (AIA).

⁷¹² Guillermo Lazhcoz and Paul de Hert, ‘Humans in the GDPR and AIA Governance of Automated and Algorithmic Systems: Essential Pre-Requisites against Abdicating Responsibilities’ (2023) 50 *Computer Law and Security Review* 1.

⁷¹³ *Ibid.*

⁷¹⁴ Andrew D Selbst and Julia Powles, ‘Meaningful Information and the Right to Explanation’ (2017) 7 *International Data Privacy Law* 233.

⁷¹⁵ *Ibid.*

⁷¹⁶ Lilian Edwards and Michael Veale, ‘Enslaving the Algorithm: From a “Right to an Explanation” to a “Right to Better Decisions”?’ (2018) 16 (3) *IEEE Security and Privacy* 46-54.

⁷¹⁷ Sebastião Barros Vale and Gabriela Zanfir-Fortuna ‘Automated Decision-Making Under the GDPR - A Comprehensive Case-Law Analysis’ (*Future of Privacy Forum report* 17 May 2022) available at [FPF-ADM-Report-R2-singles.pdf](#) accessed on 7 October 2025.

6.4.1.2 The New AI Act 2024 (AIA)

The AIA aims to establish a level of risk-based framework that sets out various obligations for private sector users and providers of AI. Once again, the regulation primarily focuses on the effective regulation and enforcement of the EU's wider consumer protection law and frameworks. Nonetheless, the AIA goes further than the more sectoral and functionalist approach of the EU's data protection regime to more explicitly address the obligations of European institutions, offices, bodies, and agencies in their capacity as AI users and providers.⁷¹⁸

The AIA is essentially based on a system of risk assessment, whereby the scope of legal obligations applicable to the use of AI is assessed based on the level of risk these pose. The strictest obligations are applied to HRAIS, whereby risk is determined in the EU to fundamental rights and principles of EU law, which are the most broadly regulated rights under various aspects of the AIA.⁷¹⁹ The highest risk category includes the use of AI by public bodies, such as in relation to the distribution and management of public services and welfare benefits, law enforcement, asylum and immigration systems, and the administration of justice.

The significant implications and issues of ADM of concern in this research are especially clear when public bodies use ADM systems in ways that avoid the usual constraints on their powers.⁷²⁰ However, key aspects of existing EU legislation and regulation often overlook these issues. While the AIA aims to balance transparency obligations for both public bodies and private sector actors, it seeks to cover any natural or legal entity using ADM systems within its scope.

⁷¹⁸ EU Artificial Intelligence Act, Article 13(1).

⁷¹⁹ European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (2020/2012(INL) (*Publications Office of the European Union*, 20 October 2020) <<https://op.europa.eu/en/publication-detail/-/publication/ec39aa89-263f-11ec-bd8e-01aa75ed71a1/language-en>> accessed 29 November 2024.

⁷²⁰ Cary Coglianese and David Lehr, 'Regulating by Robot: Administrative Decision Making in the Machine-Learning Era' (2017) 105(5) *Georgetown Law Journal* 1147, 1148, 1155.

However, it could be argued that ADM users and providers should be held to different standards of accountability. The GDPR and the AIA effectively prevent private sector abuses, focusing on consumer protection and privacy: distinguishing between partially and fully automated ADM is more complex, when public bodies are both providers and users of AI.

The addition of the Article 13 obligation of explainability (as analysed in Chapter 5) may facilitate the existence of other rights that already exist under EU law. However, this requirement alone appears inadequate to fulfil the higher administrative duty (under EU law) to provide reasons, and to respect other values that underpin this right (such as legality, proportionality, fairness, and non-discrimination). If the EU's current regulations do not create new enforceable rights for explanations, access, challenges, or objections, it is unsurprising that courts do not expand their review on the legality of AI or data uses that lack clear legal definitions for such rights.

The important consideration here is that despite recent EU developments in data regulation and the AIA showing a strong commitment to comprehensive regulation, they seem to impose a lower legal responsibility on the public sector.⁷²¹ This is why the responsibility and accountability regulation is essential due to the growing use of opaque and potentially biased AI systems.⁷²²

6.4.2 Canadian AI Guidelines

Moreover, Canada has made noteworthy recent legislative initiatives involving public sector ADM.⁷²³ The Canadian 'Directive on ADM' widely welcomed as an attempt to re-evaluate the responsibilities of the state in the global and national AI landscape, the Directive constitutes one of the instruments of national policy to specifically address the increasingly widespread AI algorithmic use and ADM in

⁷²¹ Meg Leta Jones, 'The Right to a Human in the Loop: Political Constructions of Computer Automation and Personhood' (2017) 47 *Social Studies of Science* 216; Frank Pasquale, 'A Rule of Persons, Not Machines: The Limits of Legal Automation' (2019) 87 *George Washington Law Review* 1.

⁷²² *Ibid.*

⁷²³ Paul Daly and Brandon Orct, 'Artificial Intelligence Accountability of Public Administration in Canada' (2022) Ottawa Faculty of Law Working Paper No. 2022-30, Available at <http://dx.doi.org/10.2139/ssrn.4266365>.

public bodies.⁷²⁴ Briefly, the Canadian Directive sets out several principles aimed at the responsible use of ADM in government DM. Many of these principles mirror, or go further than, the requirements adopted under the respective EU AI and Data Protection Laws. For instance, the Directive establishes clearer guidelines for assessing and measuring the impact of ADM in administrative DM on affected persons or constituencies.⁷²⁵ Supported by measures for enhancing transparency around the suitability of AI system in public ADM, the guidelines define standards for the protection of personal data and create guidelines and mechanisms that allow for meaningful explanations for any decisions made, or informed by, AI.

While the Directive constitutes a significant landmark in the national governance and regulation of public sector ADM, the effectiveness of this soft law instrument remains doubtful. Formulated as a set of interpretatively open policy guidelines, not as a set of “rules” capable of imposing obligations for public officials. The Directive provides no mechanism for ensuring that any individuals subject to administrative decisions can obtain explanations of the kind envisioned under the Directive.⁷²⁶

In this regard, the practical value of the “meaningful explanation” under the Directive appears to be lacking, because the Directive does not clearly identify how compliance with this standard is to be evaluated and enforced.⁷²⁷ It is also unclear what sanctions or remedies exist for wrong decisions after an explanation has been given. As a result, similar to the European approach, it seems there is a gap between the legislative goals that public bodies will act accountably, for instance by justifying the legal basis and rationale for AI-based decisions, and how such aims can be accomplished in legal practice. To take one example, the Directive fails to define what constitutes a “meaningful” explanation.

⁷²⁴ Teresa Scassa, ‘Administrative Law and the Governance of Automated Decision-Making: A Critical Look at Canada’s Directive on Automated Decision-Making’ (2021) 54 *University of British Columbia Law Review* 1.

⁷²⁵ Barbara Ubaldi and others, ‘State of the Art in the Use of Emerging Technologies in the Public Sector’ (2019) *OECD Working Papers on Public Governance* 31.

⁷²⁶ Daly and Orct (n 770).

⁷²⁷ *ibid.*

6.4.3 Australia's Judicial Experience in Reviewing and Regulating ADM

While there are no comprehensive laws in Australia specifically regulating AI use in the public sector, the government tends to highlight the application of existing regulatory frameworks on ADM issues. Jurisprudence of Australian courts primarily discussed the legal challenges and illustrated the court's handling of ADM issues. In particular, lack of transparency issue (black box) appeared the reason behind some existing cases, such as the *Pintarich Case* and *Deanna Amato v The Commonwealth of Australia*, which are detailed below. The next discussion will demonstrate three examples of cases against decisions made by ADM systems in Australian public bodies. The opaqueness and regulatory gap in those decisions affected the possibility of reaching successful judicial review.

-The Pintarich Case

This section focuses on the landmark decision of the Australian Federal Court in *Pintarich v Deputy Commissioner of Taxation*.⁷²⁸ The judgment of the Court illustrates the challenges that all courts are likely to face, which is the distinction between the technical and legal functions of a computer. The courts mainly were asked to consider the lawfulness of computer-generated ADM. The facts of the case concerned a software-generated bulk letter that was nonetheless sent to the intended recipient because of an action (data inputting) by an official of the Federal government. The substance of the case tilted on the issue of whether the largely automated act of generating a letter could be defined as an "administrative" decision and not a technical function.

The key legal issues addressed in the case are whether (i) the computer system exercised a statutory function (the remittance of an interest charge) by (ii) a public authority (the Deputy Commissioner of Taxation), as (iii) defined and controlled by Section 8AAG of the Tax Administration Act.⁷²⁹ In other words, the court was asked to consider whether (1) the action of generating an automated letter should be construed as a public exercise of statutory authority; (2) the issue was sufficient to produce

⁷²⁸ *Pintarich v Deputy Commissioner of Taxation* [2018] FCAFC 79; 262 FCR 41; 108 ATR 31

⁷²⁹ *Ibid.*, [140] and [143]

legal effects, in a manner analogous to other exercise of public (human) authority; and (3) it was brought within the scope of administrative law.

In reaching its majority judgment, the court gave weight to the submissions of the counsel representing the government. The Australian Government responded that the letter had been sent in error, because of a malfunction in the automated software. Additionally, no human with delegated authority had made a decision with legal effects. The court subsequently dismissed the action on the grounds that the complaining party (Pintarich) had failed to demonstrate preconditions for the existence of an administrative decision.

The test, as defined by the Court, was first that there must be some mental (human) process involved in making a decision. Second, the mental conclusion reached by a decision-maker was the basis of an objective act.⁷³⁰ Applying these legal tests, the Court determined by majority decision that the second of these conditions had not been satisfied because the official had not reached a mental conclusion about whether to remit the charge as the objective basis for sending the letter (which was made in error).

Notably, Justice Kerr differed from the majority opinion, holding that an administrative decision had been made and that, therefore, such a decision should be subject to the same administrative law requirements as any other exercise of statutory authority.⁷³¹ In particular, Justice Kerr noted the increasingly futile distinction between computer and human acts of DM, in light of the growing influence and reach of the rise of AI in administrative DM. In his dissenting opinion, the Justice Kerr also explained that whether a decision is an administrative in nature in its scope and effects, including whether the nature of such decision requires higher levels of human input and judicial review,

⁷³⁰ Ibid.

⁷³¹ Ibid., [41]-[42]

requires close assessment of whether the circumstances in which the conduct said to be, or not to be, a decision arose was within the normal practices of the agency and whether the manifestation of that conduct by an overt act would be understood by the world at large as being a decision.⁷³²

In short, Justice Kerr affirmed the importance of applying requirements of administrative law to ADM amounting to an overt DM act, regardless of the degree of human input or reasoning involved. Nevertheless, the litigant (*Pintarich*) was refused the right to appeal the decision, denying the applicant any remedy and unfettered right to access to justice. The important consequence of the *Pintarich* ruling is that this ruling appears to set a high bar for future review into the lawfulness of more significant exercises of statutory power made by computer programs.⁷³³ However, the decision of the court hinged on the ‘mental process’ instrumental in ADM, which is a nebulous conceptualisation difficult to prove in the context of computer program operations, particularly in the absence of detailed technical information (and understanding thereof) concerning how the system operates.

The *Pintarich* ruling poses significant challenges for judicial review in the context of ADM without transparency and clearer legal definitions.⁷³⁴ Courts and individuals may struggle to ensure that AI systems are used in a way that is fair, accountable, and consistent with the principles of administrative law. This underscores the urgency of addressing transparency issues in Australian ADM systems.

The UK faces similar issues to the *Pintarich* Australian case, and has adapted the regulatory approach. In *Pintarich*, the Australian court struggled to examine whether generating an automated letter could be considered a legitimate administrative decision within the existing legal frameworks that emphasise human processes in DM. This result seems reminiscent of the ‘regulatory gap’ situation in

⁷³² *Ibid.*, [52]

⁷³³ David Tan, ‘The Thought Problem and Judicial Review of Administrative Algorithms’ (August 24, 2023), 44(1) *Adelaide Law Review* 37.

⁷³⁴ *Pintarich v Deputy Commissioner of Taxation* (n 781).

the UK (as explained previously in this chapter), whereby the lack of regulation renders it difficult to apply administrative and data protection law, as in the *Bridges* case. Both *Pintarich* and *Bridges* underscore a regulatory gap when applying traditional administrative law principles to modern ADM systems.

Existing laws and guidelines, designed for human decision-makers, are often inadequate for addressing the complexities and potential risks of AI-driven processes. In the UK, the *Bridges* case demonstrates that even with data protection laws, surveillance camera codes, and internal policies, ADM systems can still be unlawful if they lack sufficient safeguards, transparency, and consideration of equality responsibilities. In essence, both cases highlight the need for clearer, more specific regulations and guidelines to ensure that ADM systems are used fairly, transparently, and accountably, with the scope for judicial review.

In Australia, specific regulations designed for AI and ADM systems are currently absent. However, a fundamental framework exists under national policies and recommendations to underscore the commitment to leveraging AI technologies safely and responsibly, with a focus on benefiting all Australians. In this regard, the Australian Law Council has suggested several possible legislative reforms aimed at bringing ADM under the scope of administrative law and review citing a number of concerns:

There may be certain kinds of decisions which may be less amenable to being made by using a computer program – in particular, decisions which involve a weighing up of evidence to reach factual conclusions and the exercise of human discretion and judgement... [including by] forming a view about whether a decision-maker acted within power in judicial review proceedings.⁷³⁵

⁷³⁵ The Law Council of Australia, Positioning Australia as a leader in digital economy regulation – Automated decision making and AI regulation – Issues Paper Digital Technology Taskforce, Department of the Prime Minister and Cabinet 3 June 2022

6.4.4 US Case Law

Courts in the US have presided over a higher number of cases involving public bodies' use of ADM, specifically where such systems threaten due protection and equal protection of individuals. In a similar fashion to the Australian income tax computation system, the US Unemployment Insurance Agency relies on AI models (MiDas) to automate the administration of employment benefits.⁷³⁶ MiDas monitors people for possible fraud, triggering questionnaires being sent to suspected individuals, which are then analysed. These initial fraud checks are administered without human input or oversight.

Until 2015, while the system was in operation, investigated individuals were not notified that fraud checks were being conducted; if a positive determination of fraud was made by the AI-assisted detection software, individuals risked automatic termination of their benefit, in addition to other financial penalties.⁷³⁷ However, individuals had the right or mechanism to rebut AI-generated predictions. The US Auditor General would conduct a review of the US fraud detection software to determine that the system was highly inaccurate, having served false fraud predictions in the range of 90 percent of all predictions. A case was brought before the US Michigan Circuit in *Cahoo v. SAS Analytics Inc.* On appeal of the decision, the US court determined that the ADM system (MiDAS) violated procedural fairness by denying individuals sufficient notice and a right to be heard in accordance with the due process clause of the US Constitution.⁷³⁸

The ruling reached in *Cahoo* can be contrasted with the controversial ruling made in *State v. Loomis*,⁷³⁹ which concerned the US government's use of COMPAS risk matrix software in sentencing. COMPAS software applies algorithmic predictions to recommend appropriate sentences for criminal convictions, based on a computational analysis of (amongst other factors) pre-trial risk, current

⁷³⁶ Doa A. Elyounes "Computer Says No!": The Impact of Automation on the Discretionary Power of Public Officers, (2021) 23 Vanderbilt Journal of Entertainment and Technology Law 451, 469.

⁷³⁷ Ibid.

⁷³⁸ *Cahoo v SAS Analytics Inc* (2019) 18-1295/1296.

⁷³⁹ *State v Loomis* (2016) WI 68.

charges, criminal history, and repeat offences. In the case, the plaintiff sought to enter an appeal a drunk driving sentence on the grounds that the first instance circuit court had violated his due process rights by factoring in COMPAS risk assessment as one factor taken into during sentencing.⁷⁴⁰ The Wisconsin Supreme Court (WSC) dismissed the application for an appeal, finding that the use of an automated system did not constitute a substantial breach of due process protections.

Notably, the appeal was rejected based on the court's assessment that use of the automated COMPAS system was not a sole or decisive factor in judicial sentencing. In this regard, the Supreme Court of Wisconsin reasoned that 'risk scores [generated by COMPAS] may not be used as the determinative factor in deciding whether an offender can be supervised safely and effectively in the community', and that the authorities ought not to use it to determine the severity of a sentence, or its form, since this would constitute a violation of an individual's due process rights.⁷⁴¹ Instead, the Court imposed what is in effect a rationality and reason-giving requirement on the future uses of risk assessment tools by judiciaries, stating that the 'court must explain the factors in addition to... risk assessment that independently support the sentence imposed'.⁷⁴²

The *Loomis* judgment might well be a success for administrative justice in relation to the use of AI. In future, US courts might be prepared to consider the degree of agency reliance on an automated risk-weighting system, and similar reasoning might be applied to any restrictions placed on detained immigrants subject to risk-weighting decisions under the Australian SRAT.⁷⁴³ A higher degree of agency reliance on automated systems may increase the scope of judicial review into the lawfulness of a measure.

⁷⁴⁰ Note, 'State v Loomis: Wisconsin Supreme Court Requires Warning before AI use of Algorithmic Risk Assessments in Sentencing' (2017) 130 Harvard Law Review 1530.

⁷⁴¹ Ibid.

⁷⁴² Ibid.

⁷⁴³ Williams (n 12).

The case can be viewed positively, as imposing a stricter duty on public bodies to monitor and assess the accuracy of AI and algorithmic systems in light of changing social and demographic considerations.⁷⁴⁴ The Court's reasoning also implies that any system used to restrict fundamental freedoms, such as length of sentencing or detention conditions, should be proportionate and used only for the purpose intended, for instance, to ensure public safety and minimise the risk of recidivism. There may be a duty, as indicated under Canada's recent AI Directive, and more recently recommended by the Australian Law Council, to carry out a human rights impact assessment.

However, the above analysis offers a hopeful explanation because various US cases involving the use of ADM have reinforced the central legal challenge presented by public bodies.⁷⁴⁵ For instance, judicial assessment of due process violations resulting from ADM systems deployed by state governments to rank and terminate the employment of public sector workers.⁷⁴⁶ The most obvious concern is that the use of risk assessment tools, including the US COMPAS system, has consistently revealed biased outcomes, including the disproportionate sentencing of ethnic minorities by US courts. Despite being shown to be heavily biased against African Americans, the US government has continued to approve the use of this controversial system.⁷⁴⁷ The US government maintains this widely discredited risk assessment system, without providing convicted individuals with a direct right or mechanism for individuals to refute AI enabled decisional outcomes, nor would any individual's procedural (fairness) right to access that allow affected individuals to interrogate or dispute the basis for the AI decision, including coding errors and algorithmic bias.⁷⁴⁸

⁷⁴⁴ Roger Brownsword, 'Law and Technology: Two Modes of Disruption, Three Legal Mind-Sets, and the Big Picture of Regulatory Responsibilities' (2018) 14(1) *Indian Journal of Law and Technology* 1, 19.

⁷⁴⁵ For example, *Houston Fed'n of Teachers, Local 2415 v. Houston Indep. Sch. Dist.*, 251 F. Supp. 3d 1168 (S.D. Tex. 2017)

⁷⁴⁶ *Ibid.*

⁷⁴⁷ Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, (2014) 66 *Stanford Law Review* 803, 806–807.

⁷⁴⁸ Knight (n 211).

6.4.5 Summary of Main International Regulatory Responses to ADM

ML models in ADM are complex and deliberately opaque, for example, to protect developers' intellectual property rights.⁷⁴⁹ This restricts public bodies' ability to disclose ADMPs.⁷⁵⁰ A key concern is the focus on regulating private sector actors, with potentially less attention to the specific needs and challenges of AI use within public bodies.

Furthermore, automated decisions can infringe procedural requirements of the law, including the right to be heard, the right of access information, the right to know the substance of a decision and the means by which it was made (i.e., access to the ADM system and its supporting data), and the right to obtain legal remedies for unlawful decisions involving ADM.⁷⁵¹ While humans' decisions can be contested under the law, and are subject to independent review, it appears challenging to make ADM explainable in compliance with legal provisions and reasoning requirements, such as the EU's regulations.⁷⁵²

In the EU, the unexplainable nature of ADM may constitute a potential violation of the substantive and procedural reason-giving requirements under EU law. The legality of a decision based on ADM, such as facial recognition technology, may be challengeable under general aspects of EU treaty law, including EU procedures for annulling an EU measure.⁷⁵³ However, on the question of judicial review, the existing law of the EU treaties and other regulatory instruments provides few concrete rights or

⁷⁴⁹ Ignacio N. Cofone and Katherine J Strandburg, 'Strategic Games and Algorithmic Secrecy' (2019) 64 McGill Law Journal 623.

⁷⁵⁰ Mark C Elliott, 'Has the Common Law Duty to Give Reasons Come of Age Yet?' (2012) University of Cambridge Research Paper No. 7.

⁷⁵¹ Adrien Bibal and others, 'Legal Requirements on Explainability in Machine Learning' (2021) 29 Artificial Intelligence and Law 149.

⁷⁵² Jacob Metcalf and others, 'Algorithmic Impact Assessments Report: A Practical Framework for Public Agency Accountability: : The Co-Construction of Impacts', (2021), *the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT)*, Association for Computing Machinery, Available at [Algorithmic Impact Assessments and Accountability | Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency.](#), accessed on 24 November 2024.

⁷⁵³ *Commission v Sytraval and Brink's France* (C-367/95 P) EU:C:1998:154 at [67]; *France v Commission* (C-17/99) EU:C:2001:178 at [35]

obligations. A more general problem is that principles of EU administrative law are too vague or too open to interpretation to have direct application to ADM.

The EU approach has also faced criticism for potentially limiting innovation and market competition. In contrast, jurisdictions like the US, Australia, and Canada tend to take a more fragmented and flexible approach. Instead of a single overarching regulation, they rely on existing legal frameworks, sector-specific guidelines, and industry standards to manage AI risks. These jurisdictions often prioritise fostering innovation to allow regulations to respond to technological developments and incidents. While ethical considerations are recognised, they are typically developed through advisory bodies or industry initiatives rather than enforced as part of a comprehensive legal framework. This results in a more decentralised system with varying levels of oversight and enforcement across different regions and sectors.

Australia has focused on developing specific guidelines for AI and ADM in public bodies. While this targeted approach offers potential benefits, it has faced challenges in practical application and enforceability. Canada has opted for a “soft law” approach with its DADM, which emphasises responsible use of AI, transparency, and data protection. However, its lack of enforcement mechanisms and clear standards for compliance raises questions about its effectiveness.

In contrast to the EU, the US seems to have adopted a more market-oriented, less-regulated approach to AI. The absence of a comprehensive federal data protection law reflects this perspective. The US emphasis is on balancing technological benefits with potential risks, such as privacy issues. Additionally, the U.S. courts’ role in regulating AI appears to be stronger than the EU courts, as evidenced by their active involvement in cases and willingness to apply the public law principles on the use of ADM systems by public bodies.

U.S. courts, as explained in section 6.4.4, have been actively involved in cases involving public bodies’ use of ADM systems. For instance, in *Cahoo*, explained above, the court found that the MiDAS system,

which automated unemployment benefit fraud detection, violated due process due to inadequate notice and denial of a right to contest AI-generated fraud declarations.⁷⁵⁴ On the other hand, the Wisconsin Supreme Court in *Loomis*, ruled that the use of COMPAS risk assessment software in sentencing did not breach due process, provided it was not the sole factor in DM. This highlights a nuanced judicial recognition that while AI tools must be used with transparency and cannot decisively restrict fundamental rights without human oversight. The courts have emphasised the need for rationality and reason-giving in AI-influenced decisions, thereby imposing a duty on public bodies to regularly assess the accuracy of AI systems.

The UK, post-Brexit, appears to be at a crossroads regarding its AI and data regulation strategy. While historically influenced by EU regulations, there is now a space for change, amending or establishing new standards that diverge from the EU model. This evolving landscape suggests that the UK may adopt an independent approach geared more towards facilitating innovation rather than imposing broad regulatory restrictions, though the exact direction remains to be clarified. The UK now appears to be adopting a middle course between the AI regulation approaches of the EU and Canada, particularly in the context of public sector use of ADM.

Rather than pursuing a broad, comprehensive regulatory framework like the EU, the UK has introduced targeted legislation relevant to public bodies. Specifically, the UK has issued the Public Authority Algorithmic and ADM Systems Bill, which aims to establish specific rules and standards for the use of ADM technologies within public authorities. This approach reflects a more cautious and tailored regulatory stance, focusing on safeguarding public interests and governance in ADM. As well as avoiding overly restrictive measures that could hinder innovation and operational efficiency in the public sector.

⁷⁵⁴ *Cahoo v SAS Analytics Inc* (n 807)

6.5 Chapter Conclusion

Due to ADM problems and gap in regulation and legal process considering legal contestation of ADM, public trust in administrative justice and automated decisions is seriously undermined.⁷⁵⁵ Cases against ADM that have come before the courts demonstrated clear gaps regarding regulations and standards of review, and the delay in response to the challenges. It is also evident from the analysed documents that there is a regulatory gap in all aspects of the laws relevant to ADM which identified that AI regulations and ADM are still under development in the UK.

To bridge this regulatory gap, this chapter suggests adopting a comprehensive "digital law" framework (following Professor Sueur), implementing robust "right to explanation" requirements (aligning with the Alan Turing Institute's recommendations), establishing dedicated oversight bodies with real-time governance capabilities, and prioritising the creation of readily accessible and streamlined redress mechanisms for individuals affected by ADM.

A conclusion has been reached from the exploring of the international experiences in regulating ADM. Overall, the patchwork of international regulatory approaches from the EU's stricter but vague administrative-law fit to the US, UK, Canada and Australia's more fragmented, innovation-focused models, underscores an urgent need for clear, enforceable standards that reconcile legal reason-giving and accountability with legitimate innovation and IP concerns.

⁷⁵⁵ Drake and others (n 387).

Chapter 7

Expertise Gap in AJs

7.1 Introduction

The previous chapters have demonstrated that the AJs in the UK are challenged by the evidently complex issues involved in interpreting, understanding and evaluating the equity and fairness of decisions made by ADM when reviewing legal processes. This chapter now moves to a discussion of the expertise gap in legal cases that affects the ability of AJs to perform their duties in addressing ADM. The insufficient technical expertise available to courts to enable judgments or address ADM decisions is a serious concern. Having conducted qualitative documentary and thematic analysis, this chapter focuses on the third identified theme, the expertise gap, and seeks to provide a comprehensive understanding of related issues.

The first section of this chapter analyses key documents that highlight the meaning of the expertise gap within AJs. This gap arises primarily from the technical complexities inherent in ADM systems, which require a level of specialised knowledge. Without this adequate technical knowledge and expertise, AJs may struggle to examine automated decisions.

The second section explores the challenges that arise from this expertise gap based on the documentary analysis. For example, significant issues of the increased cost and long timelines associated with the ADM RP. When AJs lack the necessary expertise, they may need to rely heavily on external experts, leading to financial strains and delays that undermine their effectiveness and deter timely justice.

The third section investigates national and international responses and suggestions aimed at addressing this expertise gap. Various strategies are suggested from different aspects of law, such as reforming legal education, adopting interdisciplinary collaboration, and integrating technological

training within AJs. These approaches offer a roadmap for enhancing the capability of AJs, ensuring they can adapt to and effectively address ADM cases.

Through this analysis, the chapter aims to shed light on the existing expertise gap and propose viable ways to support the role of AJs in upholding justice in the AI and ADM world.

7.2 The Challenges of Expertise Gap

The documentary analysis of the cases, reports and related scholarly work reveals the complex relationship of technical complexity, review limitations, and the lack of expertise of legal bodies in addressing this gap. From the real practical ADM judicial review cases, the information requested in the *Ofqual v. ICO* [CJ6] case was statistical, and the complexity of algorithms is often reflected in associated statistical data. Analysing statistical outputs can reveal and assess algorithms' functionality, data processing methods, and potential biases.⁷⁵⁶ Consequently, a **tribunal's limited technical knowledge** appears to affect its capacity to evaluate the importance of statistical data. Without a clear understanding of how the algorithm works and produces statistical results, the tribunal definitely struggles to decide whether the magnitude of the statistical effect indicates bias, unfairness, or other pertinent public issues. The lack of adequate resources and training in technical literacy to deal with the complexities of ADM appears to highlight a critical limitation in the existing judicial review framework.

According to the results of the survey in the '*UK Judicial Attitude Survey England & Wales Courts, Coroners and UK Tribunals 2024*' [GV20], the existence of the expertise gap is due to lack of resources and training. In general, the document did not explicitly use the phrase "expertise gap", nor did it focus on using ADM in government. However, it clearly demonstrated the significant challenge of the

⁷⁵⁶ *Ofqual v Information Commissioner: [2023] UKUT 253 (AAC) (n 551).*

low availability and quality of IT resources, support, and training within courts.⁷⁵⁷ This deficiency of resources and support contributes to the undermining of the overall working conditions of the judiciary, and leads to an increase in the judiciary's lack of expertise in technologies used inside or outside of legal institutions.

The survey concluded that the lack of suitable and timely technical support was cited as a main concern. It also suggested a need for enhanced technological training for judges.⁷⁵⁸ Additionally, the surveyed judges reported that the high levels of stress and amount of time dealing with technology sometimes led back to issues directly related to technology.⁷⁵⁹ This indirectly indicated a potential expertise gap arising from insufficient training about technology, which increases complication levels of cases for the judges. Edwards, Williams and Binns, in their workshop paper [IN9], also mentioned the technical expertise gap:

Courts needing to **acquire the technical expertise** to understand the differences between different ADM systems and the implications of design choices for the fairness and legality of their outcomes.⁷⁶⁰

This statement briefly captures a core challenge indicated throughout this thesis: the differences in ADM systems' design and their natural complexity demand a high level of technical understanding that extends beyond the traditional legal expertise of judges. The implications of design choices – such as data selection, algorithm design, and model training – are not always readily apparent. As a result, it requires specialised knowledge to uncover potential biases or legal violations. Furthermore, the inherent limitations of the existing administrative law in addressing the reasonableness in ADM also appear to be a matter of significant concern, as argued by the authors in [IN10]:

⁷⁵⁷ Professor Cheryl Thomas KC, 'Judicial Attitude Survey 2024' (*Courts and Tribunals Judiciary*, 24 February 2025) <<https://www.judiciary.uk/judicial-attitude-survey-2024/>> accessed 16 March 2025.

⁷⁵⁸ Ibid.

⁷⁵⁹ Ibid.

⁷⁶⁰ Edwards, Williams and Binns (n 638).

At present, administrative law has neither the technical expertise nor a developed enough account of what makes a decision reasonable in principle to be able to provide the necessary answers, guidance, and protection.⁷⁶¹

The report also mentioned that the ‘Courts currently lack the technical expertise to make these decisions.’ As a result, ‘This has led to costly reversals in the use of ADM/ASDM following challenges in the courts.’⁷⁶²

What makes this gap in judicial review even more serious is that the public bodies issuing such decisions also suffer from a gap in technical expertise concerning AI. Beyond judicial review, the provided text in [GV9] identifies significant expertise gaps within the public sector itself, particularly among those responsible for commissioning and overseeing AI systems [GV9]. The lack of technical understanding to effectively assess the risks associated with ADM consequently leads to inadequate review and addressing in AJs.

Furthermore, this lack of technical understanding and expertise gap is not confined to the public sector and administrative courts. Financial regulators, consumer protection agencies, and even judges in criminal courts struggle to assess and review the risks associated with ADM systems. It appears that the lack of expertise and technical knowledge is a general issue in the judicial framework in the UK. It is worth mentioning here the types of expertise gap in other areas of law, in order to explore the main responses to such issues that might be beneficial for administrative law to follow.

In interviews conducted about AI in consumer protection, industry stakeholders and regulatory bodies highlighted that businesses are lacking a legal framework on the application of law to AI consumer products [GV6]. For most interviewees, the existing legal gap causes significant challenges for assessment bodies (reviewers) with regard to AI products. The interviewees noted that ‘these bodies

⁷⁶¹ Byrom Natalie (n 635).

⁷⁶² Ibid.

often lack specific knowledge and authority to test and challenge the AI systems being used in consumer products' [GV6].⁷⁶³

In the criminal justice field, the analysis of the *Bridge* [CJ3] case (Section 6.3.2) revealed the difficulties faced by judges in fully comprehending the technical complexities presented before them.⁷⁶⁴ Despite receiving detailed technical evidence from expert witnesses, the judges struggled to fully grasp the implications for the legal issues, particularly regarding potential biases and data privacy concerns.

A competent authority that has the proper expertise to understand the ADM operations is lacking in the UK system; consequently, direct issues are commonly faced by reviewers and individuals. This lack of a competent authority with expertise in ADM raises significant concerns about accountability, transparency, and ethical considerations, particularly in critical sectors such as healthcare, law enforcement, and finance. In [NI2], Mia Leslie chaired a discussion between ten legal, policy and regulations researchers to explore the legislative proposals around the regulating of AI and ADM used by public bodies. Concerning the healthcare sector, researchers and academics at the roundtable have argued that the current oversight bodies, such as the Parliamentary and Health Service Ombudsman, lack the expertise to investigate ADM. They explained that the lack of a competent authority in ADM affects individuals' right of remedy or access to justice before an independent review body concerning decisions made by automation.⁷⁶⁵ Similarly, Igor argues that the administrative courts may not be the most suitable bodies to make decisions concerning automated decisions due to a lack of technical knowledge.⁷⁶⁶

The previous chapters demonstrated that issues such as lack of transparency, limited access to information, and the regulatory gap in ADM RPs are problems in themselves, and they are additionally associated with and contribute to secondary issues, including the lack of technical expertise and costs

⁷⁶³ the Centre for Strategy and Evaluation Services (CSES) (n 565).

⁷⁶⁴ *Bridges v South Wales Police* (n 334).

⁷⁶⁵ Mia Leslie (n 668).

⁷⁶⁶ Gontarz (n 443).

of contesting decisions. Therefore, ‘the current regulatory environment is seen as inadequately resourced and lacks the necessary tools and expertise to effectively monitor and regulate AI systems’ [IN7].⁷⁶⁷

7.3 Role of Expert Evidence in ADM Judicial Review

In general, the primary role of expert evidence lies in assisting judges to understand issues related to particular cases that are outside of their knowledge.⁷⁶⁸ Courts exercise particular caution in complex areas where there may be decisions or actions that are correct or incorrect (or lawful or unlawful). When evaluating the actions of decision-makers, judges can better understand the complexities involved by hearing expert explanations of contextual factors. However, courts must be cautious about expert testimony overstepping into the substantive issues of cases, especially when introducing expert evidence that asserts a specific conclusion about the reasonableness or proportionality of the matter.⁷⁶⁹

While a court’s role is to review the legality of a decision, not to assess its merits, expert evidence is not usually used in judicial review proceedings.⁷⁷⁰ However, it may be allowed in some circumstances to assist the court in understanding matters such as technical issues.⁷⁷¹ Courts can use expert evidence to translate complex technological issues in ADM into terms understandable to the reviewers.⁷⁷² However, judges face challenges in assessing expert evidence itself, with concerns and potential defects in evaluation about ADM issues, and experts demand costs for reviews.⁷⁷³

⁷⁶⁷ King’s College London and BIICL (n 637).

⁷⁶⁸ Andrew Lidbetter, ‘Expert Evidence in Judicial Review’ (2004) 9(3) *Judicial Review* 194-196.

⁷⁶⁹ *Ibid.*

⁷⁷⁰ David Blundell, ‘Of Evidence and Experts: Recent Developments in Fact-Finding and Expert Evidence in Judicial Review’ (2018) 23 *Judicial Review* 243.

⁷⁷¹ *Ibid.*

⁷⁷² Gontarz (n 443).

⁷⁷³ John R Campbell, ‘The Judicial Assessment of “Expert Evidence” in the United Kingdom’s Immigration and Asylum Chamber’ (2022) 11 *Laws* 32.

From the analysis provided above, cost obviously appears as a challenge stemming from the expertise gap when reviewing cases involving algorithmic DM. When AJs lack the necessary technical expertise to evaluate complex ADM systems, they must rely on external experts. Most cases in the (*cases and expert evidence* collections) (in Appendix 1) have hired experts in AI, ML, and even from the nascent AI legal field. For example, judges have referred the questions to experts in order to understand the algorithmic tools in the ADM used in cases such as *Bates v. Post Office* (2019),⁷⁷⁴ *Public Law Project v. The Information Commissioner* (2023),⁷⁷⁵ *Bridges v South Wales Police*,⁷⁷⁶ and *Johnson and others v. SSWP* (2019).⁷⁷⁷

The main costs can be identified from two documents. First, the Alan Turing Institute’s submission to the House of Commons Science and Technology Committee [EX5] directly emphasises the significant cost of acquiring specialised expertise needed to effectively challenge AI-driven decisions. They explicitly state that the opacity of systems forces individuals into a position where they must “undergo...the financial burden...in hiring the right type of expert to support their challenge”.⁷⁷⁸ This individual cost is confirmed by broader findings from a government consultation on AI regulation.⁷⁷⁹ The consultation, based on evidence from technical experts and organisations, reveals that the “high costs of litigation in seeking redress” represent a major difficulty in obtaining justice for AI and ADM harms.⁷⁸⁰ This indicates that the high cost of challenging algorithmic decisions is not limited to individual expenses in securing expert assistance; it also reflects the overall expense involved in the legal processes used to address such challenges.

In summary, the reliance on external expertise significantly increases the timeline and the financial burden of the RP, thereby adding to the overall cost of administering justice in ADM cases. In general,

⁷⁷⁴ *Alan Bates and other V. Post Office Limited* (n 553).

⁷⁷⁵ *Public Law Project V. The Information Commissioner* (n 439).

⁷⁷⁶ *Bridges v South Wales Police* (n 332).

⁷⁷⁷ *Johnson and others v. SSWP* (n 104).

⁷⁷⁸ Alan Turing Institute (n 600).

⁷⁷⁹ the Secretary of State for Science (n 617).

⁷⁸⁰ *Ibid.*

the increased cost and delay in the ADM's RP are not explicitly quantified in the document collections, but they can be concluded and presented as a significant, negative consequence of the expertise gap in the courts based on the presented analysis.

7.4 Addressing the ADM Expertise Gap of AJs

The significant challenges explained above to AJs regarding the expertise gap need a multi-sided strategy to bridge the expertise gap among reviewing bodies. This section aims to draw attention to some preliminary insights arising from the analysis of various documents. It examines the documents in different areas of law undertaken in this research to propose a comprehensive vision of directions for proposed solutions.

7.4.1 Enhancing Legal Education and Judicial Training in AI

Existing studies highlight a crucial need for improved legal literacy regarding AI within the judiciary. Based on a survey of judges about AI [IN13], prioritising legal comprehension of AI's implications in ADM is vital, although judges express limited interest in enhancing their technical AI literacy.⁷⁸¹ Legal curricula must be revised, with the integration of AI legal modules addressing legal challenges posed by ADM systems across all stages of legal training (i.e., law school, judicial traineeship, and continuing professional development).⁷⁸² They should also involve case studies from real-world ADM applications and challenges to provide practical experience. While the results of the study show that the judges are not interested in enhancing technical AI literacy, it seems crucial to develop their basic understanding of coding and AI technologies in order to enable them to understand expert evidence more suitably, and to apply the relevant legal principles to ADM. Collaboration between law schools and computer science departments can bridge the gap between the legal and technical aspects of

⁷⁸¹ Andreia Martinho, 'Surveying Judges about Artificial Intelligence: Profession, Judicial Adjudication, and Legal Principles' (2024) 40 *AI and Society* 569.

⁷⁸² *Ibid.*

ADM. Therefore, developing the AI-legal curriculums seems beneficial to ensure judges will have a sufficient understanding of the technology while remaining focused on the legal implications.

7.4.2 Strengthening Expertise Supervisory Body and Oversight

Several proposals have been introduced to the government in regard to the problem of a lack of resources and expertise to effectively oversee ADM. For example, the creation of an AI regulatory body, or significantly enhancing the capabilities of an existing body (such as the ICO, as suggested in some reports), is essential. In the report issued by PLP [IN2], some participants in a multi-stakeholder roundtable discussion suggested that the ICO could play the role of a single regulatory authority on AI.⁷⁸³

The advantages of an ICO-type body would be possessing expertise in law, ethics, and computer science to ensure effective oversight. Generally, the regulatory body would be responsible for enforcing ethical standards, ensuring transparency in ADM, and investigating complaints related to the fairness and legality. Moreover, in the Justice Lab workshop [IN10], participants questioned whether a regulator would be able to best cope with ADM issues, and the offered answers expressed interest in a collaboration between different regulators as the best way to deal with ADM issues (as exemplified by the Digital Regulators Cooperation Forum).⁷⁸⁴

Similarly, legal experts in a workshop [IN10] proposed that the role of an ADM ombudsman seems important as a body to review and deal with ADM cases. However, the PLP indicated an opposite point of view [IN2], with experts arguing that existing review bodies such as the Parliamentary and Health Service Ombudsman lack the powers to initiate investigations for decisions involving automation. As a result, they believe that the role of an ombudsman may not be able to fully grant people the right to access justice and redress.⁷⁸⁵

⁷⁸³ Mia Leslie (n 668).

⁷⁸⁴ Byrom Natalie (n 635).

⁷⁸⁵ Leslie (n 668).

However, ombudsmen do have mechanisms for investigating DMPs; thus, this study supports the first suggestion about adopting an ADM ombudsman, who can assist people in accessing information about ADM and investigate its role (explained in Chapters 1 and 6), ensuring that complaints are directed to the appropriate regulatory body. This role supports accessibility and enhances the success of the regulatory system.⁷⁸⁶

In this regard, it was presented to Parliament in 2024 by the Secretary of State for Science, Innovation and Technology [GV4] that creating “a central, cross-sector redress mechanism such as a dedicated AI ombudsman” could improve access to justice and redress in ADM.⁷⁸⁷ The suggested establishment of an ombudsman dedicated to AI may offer a more effective solution than traditional judicial review and appeals (as a competent authority to specifically review ADM cases). This is because it can conduct investigations of decisions which may allow examination of the internal aspects of ADM, the data utilised, and identify the responsible parties involved in these processes.

Igor suggested the creation of an independent Expert Board and Supervisory Authority, and proposed a process whereby the public body can conduct an impact assessment, which is then audited by an independent Expert Board.⁷⁸⁸ The Supervisory Authority would be tasked with investigating the application of the rules. He added that judicial review may be limited to procedures following a complaint lodged with the Supervisory Authority.

Experts in the financial sector indicated that regulators have to have resources in terms of powers, expertise, and technical understanding in order to effectively regulate and deal with ADM issues [CV1].⁷⁸⁹ This includes the ability to access and analyse data used in ADM systems, and to impose

⁷⁸⁶ Byrom Natalie (n 635).

⁷⁸⁷ the Secretary of State for Science (n 617).

⁷⁸⁸ Gontarz (n 443).

⁷⁸⁹ GOV.UK ‘CDEI AI Barometer ‘ (GOV.UK, 23 June 2020) <<https://www.gov.uk/government/publications/cdei-ai-barometer/cdei-ai-barometer>> accessed 19 January 2025.

penalties for non-compliance. The involvement of the Supreme Court and other higher courts in defining the powers and responsibilities of the regulator, such as the ICO, is vital.⁷⁹⁰

7.4.3 Refining Principles of Review Mechanisms

The previous chapter detailed and analysed the challenges arising from the regulatory gap of ADM in the UK. One consequence of this challenge is the lack of expertise in addressing ADM issues due to a lack of transparency and disclosure mechanisms, which leaves courts without a clear understanding of the technical aspects of such decisions. Therefore, proposals to address this challenge were to refine the legal requirements to provide judges with the necessary expertise about the technical aspects of these decisions.

For instance, the *Bridges* case highlights the importance of the “**clarity and legality**” principle in ADM cases, which should be applied consistently across ADM cases. This would enhance the available expertise and knowledge about ADM cases. Additionally, requiring explainability (i.e., the **right to explanation**) is critical (as explained in Section 6.3.3). This could enable courts, judges, or any reviewers to improve their knowledge about AI and ADM technologies.

7.5 Addressing the Expertise Gap in Other Jurisdictions

Based on the discussion in Chapters 5 and 6, the comparative review shows that jurisdictions have started to adopt measures intended to ensure that affected individuals and courts can understand and challenge ADM decisions by improving documentation, requiring impact assessments, strengthening institutional oversight, and enabling expert support and disclosure where necessary. In the EU, in principle, the GDPR and AIA provide the individuals with the protection of several rights, including the rights to ‘obtain human intervention’ and (critically) ‘to express his or her point of view and to contest the decision’.⁷⁹¹ For example, AIA imposes provider-level explainability and

⁷⁹⁰ Leslie (n 668).

⁷⁹¹ Article 22, GDPR

documentation obligations for high-risk systems (Article 13) and general transparency duties (Article 52), paired with mandatory risk assessments to give deplorers and reviewers usable technical files. The EU measures and strengthened supervisory bodies, such as the European Data Protection Supervisor, and targeted rules, such as France’s source-code disclosure, also aim to overcome secrecy and furnish courts and individuals with interpretable summaries, impact reports, and expert input for meaningful review.⁷⁹²

In Canada, as explained in Chapter 6, the DADM requires impact/suitability assessments and a “meaningful explanation” standard, intended to make ADM choices and limitations visible to officials, affected persons and reviewers. Because the Directive is soft law and enforcement remain uncertain, the file recommends mandatory publication of impact assessments, standardized human-readable explanation templates, and judicial access to neutral technical experts to translate model behaviour into legally relevant reasons.⁷⁹³

In Australia, Australia relies on guidelines and institutional proposals (Digital Service Standard; AI Ethics Framework) together with Law Council reform recommendations to address the expertise gap. There was a suggestion that the Australian government establish an “AI Safety Commissioner”, who would act as a regulator to provide independent guidance and expertise relating to AI and human rights for Australian policy makers, and to monitor and investigate the AI use, especially in areas of particular human rights risk.⁷⁹⁴

In sum, while the jurisdictions might appear to be glacial in their approach to filling the technical expertise gap in courts when hearing ADM cases, the objectives of some emerging laws are pertinent.

⁷⁹² Lilian Edwards, Rebecca Williams and Reuben Binns, ‘Legal and Regulatory Frameworks Governing the Use of Automated and Assisted Decision Making by Public Bodies’ (2021) *Working Paper, Justice Lab* 26 July 2021.

⁷⁹³ Treasury Board of Canada Secretariat, *Directive on Automated Decision-Making*, (Ottawa: Government of Canada, last modified 1 April 2021) Available at [Directive on Automated Decision-Making- Canada.ca](https://www.canada.ca/en/government/publications/directive-on-automated-decision-making-2021-04-01) last access on 18 September 2024.

⁷⁹⁴ The Law Council of Australia, *Positioning Australia as a leader in digital economy regulation – Automated decision making and AI regulation – Issues Paper Digital Technology Taskforce*, Department of the Prime Minister and Cabinet 3 June 2022

For instance, requiring human expert intervention in EU regulations can bridge the expertise gap and address the technological knowledge problem for those affected by decisions and for judges and reviewers.

Based on the EU AIA, the European Data Protection Supervisor is a new authority with expertise and regulatory oversight functions over all AI-related use by EU public bodies. Similarly, the Australian government aims to establish an “AI Safety Commissioner”. Such initiatives can regulate and guide, addressing the expertise gap relating to AI and human rights for policy makers and courts, and monitoring investigations of AI use.

7.6 Chapter Conclusion

This chapter explored the expertise gap within AJs and ADM judicial review, which evidently contributes to both the high cost and significant delays associated with the ADM RP. Analysis of key documents revealed that the lack of technical expertise leads to reliance on external experts, which increases costs for individuals seeking redress. Additionally, the documentary analysis in this chapter showed that it increases the timeline of the process, due to the delayed disclosure of crucial information, as illustrated by the Post Office case, which significantly affects case preparation and the legal process in general.

These delays stem from a lack of understanding of the technology within the AJs, and the egregiously inadequate regulatory landscape and existing mechanisms for contesting ADM decisions, as explained in Chapter 5. Addressing the expertise gap in judicial review of ADM cases requires a coordinated approach, involving enhancing legal education and training, strengthening regulatory oversight, and potentially the development of a specialised institution, such as an ombudsman, to handle the complexities of ADM cases.

Conclusion

Main Outcomes

Contrary to the assumption that the Digital Government in the UK began with the launch of the Government Digital Service (GDS) in 2011, the UK had already prior to that year established itself as a global leader in computerisation and automation systems. In the 1980s, using technology primarily focused on information extraction and retrieval, as well as the development of various types of logical formalisms, which continued into the early 1990s. The mid-2000s introduced extensive studies of ML techniques within AI and DM. By the early 2010s, data analytics had gained significant attention, furthering the integration of AI in public administration and legal contexts. This historical groundwork from the mid-20th century onwards contributed immensely to what is now recognised as ‘AI strategy’ in the UK government.

This thesis has explored the multifaceted challenges confronting AJIs in their review of administrative ADM cases. Through a doctrinal legal analysis and empirical qualitative document analysis, this research answered the question of what are the key issues/challenges for AJIs in RP about administrative ADM processes by the UK. It established a typology of the challenges, encompassing three main types: lack of transparency, regulatory gap, and expertise gap within the UK’s administrative justice system. Furthermore, insights from the EU, Canada Australia, offered valuable perspectives on potential solutions and regulatory approaches.

The findings reveal a significant tension between the increasing reliance on ADM by public bodies and the capacity of AJIs to review and ensure accountability, fairness, and legality. A central challenge lies in the insufficient transparency surrounding ADMs. Public bodies often prioritise minimal disclosure over substantive reporting, hindering effective scrutiny by both individuals and reviewing bodies. The complexity and opacity of ADM systems, coupled with legal complexities and costs associated with

judicial review, can deter individuals from challenging decisions, perpetuating issues of non-compliance.

Analysis of various legal fields beyond administrative law revealed potential solutions to enhance transparency, categorised as both technical and legal. Technical solutions include algorithmic transparency tools, interpretable ML, and empirical/technical audits of ADM systems. Legal solutions involve mandatory transparency standards, a legally binding 'right to explanation,' and strengthening existing legal tools like DPIAs.

The research identified a clear regulatory gap in the UK concerning AI and ADM. While recent policy and institutional developments, such as the 'AI Strategy' and the 'Algorithmic Transparency Recording Standard' (ATRS), represent positive steps, their practical impact remains limited. The ATRS lacks statutory force, and key government departments have yet to fully comply with its reporting requirements. Emerging legislation, such as the Public Authority Algorithmic and ADM Systems Bill, holds promise but requires careful consideration to ensure comprehensive coverage and effective enforcement.

Addressing the expertise gap within AJs is paramount. This requires a multi-faceted strategy encompassing enhanced legal education and judicial training in AI, strengthening expertise within supervisory bodies like the ICO, and refining principles of review mechanisms to provide judges with the necessary technical understanding. Comparative analysis of other jurisdictions reveals diverse approaches to regulating AI and ADM, ranging from the EU's comprehensive, rules-based approach to the more fragmented and flexible approaches of the US, Australia, and Canada. Key lessons include the importance of balancing innovation with ethical considerations, tailoring regulatory frameworks to specific contexts, and ensuring meaningful explanations within the context of judicial review.

Recommendations

This research underscores the need for a comprehensive and coordinated approach to address the challenges of review ADM within the UK administrative justice system. This approach should encompass the following four recommendations based on the discussions and analysis in Chapters 5, 6 and 7:

- 1. Establishing a single and comprehensive legal framework for AI and ADM:** This framework should cover the entire DM and RPs, define legal authority, and expand time limits for determining accountability, and mandate impact assessments and transparency standards.
- 2. Enhancing transparency and explainability:** Implementing mandatory transparency standards, promoting open-source software and open data standards, and establishing a legally binding ‘right to explanation’ are crucial steps.
- 3. Bridging the expertise gap:** Providing enhanced legal education and judicial training in AI, strengthening expertise within supervisory bodies, and establishing an ADM ombudsman can improve the capacity of AJs to effectively review ADM cases.
- 4. Fostering collaboration among stakeholders:** Involving parliamentary consultants, public bodies, technology experts, and legal experts in the development of AI regulations can ensure that systems are developed in accordance with the law and promote responsible governance.

The qualitative documentary analysis reveals that the challenges of ADM review are not limited to administrative law; rather, they are general across all UK legal jurisdictions dealing with AI and ADM. This calls for a more comprehensive and coordinated regulatory response. Therefore, the study explored the different approaches and experiences of other jurisdictions (the EU, Canada, and Australia) in addressing the challenges and issues surrounding ADM cases.

The third research question involves examining if insights and experiences from other countries can contribute to identifying effective responses to the ADM RP issues in the UK. Based on the overall

discussion in previous chapters, every country has unique limitations for similar challenges. Therefore, it may be challenging to directly apply knowledge and experiences from other countries, but a combination of the best practices could be considered.

Ultimately, the study suggested that the UK should consider a blend of the strong principles and practices embodied by the studied cases. The aim would be a comprehensive legal framework that ensures automated government decisions are made transparently, fairly, and are subject to robust oversight and review, while protecting individuals' rights and privacy.

This is a brief summary of the international lessons that the UK may consider in regulating ADM.

Lessons Learned

Several lessons can be drawn from the EU, Canada, Australia and the US. In the broadest terms, the analysis of the EU experience has identified that one way of resolving the lack of transparency in ADM should be to draw a line between human discretionary and automated non-discretionary DM by public authorities. The EU approach may prove less effective for addressing ADM issues. The overall discussion indicates that regulating the use of AI and ADM should not be the sole focus; rather, the review should be tailored to support other transparency and accountability mechanisms and provide genuinely useful explanations within the context of judicial review.⁷⁹⁵ As suggested in Chapter 6, the UK needs to establish a comprehensive law not just focus on rights but cover all aspects of ADM in administrative law such as accountability and effective oversight mechanisms.

In this regard, the UK may look to the new Canadian 'Directive' or Australian 'Automated Assistance in Administrative Decision Making'. It has already been noted that the Canadian Directive, though not enforceable against unlawful authorities or public agencies, does nonetheless clarify some issues. The Canadian guidelines require public bodies to provide some meaningful "explanation" of how automated systems work, though these are generally expected to be implemented at the policy level,

⁷⁹⁵ Lilian Edwards, Rebecca Williams and Reuben Binns, (n 638)

in ex ante impact assessment procedures.⁷⁹⁶ This would allow for public scrutiny and consideration as to whether certain ADM systems are appropriate to the nature of DM involved, before they can be deployed by public authorities. However, Canada's suitability assessments proposal lacks effectiveness because these do not establish a binding obligation on concerned public officials to provide meaningful or "responsive" reasons justifying their decision, or the accuracy of data on which that decision is modelled.⁷⁹⁷

The Australian guidelines on automated systems offer more in the way of guidance on the types of DM that can or should be automated and any legal requirements that should apply. The Australian guidelines, moreover, make it clear that AI or algorithms should not automate the exercise of discretion.⁷⁹⁸ The guidelines propose an additional safeguard by requiring that any automated system deployed by public authorities and agencies, 'must be designed in a way that accurately reflects the government policy it models and agencies should be careful that the system does not fetter the decision-maker in exercising any discretion'.⁷⁹⁹

The Australian approach, like the Canadian Directive, has certain limitations. One solution to the public consequences of big data is to mandate public bodies to disclose certain data to the public upon request.

One challenge that arises is when governments purchase automation system software from private vendors under government contracts. In such a case, because the data is privately owned, individuals requesting disclosure will likely fail to demonstrate that governments "control" the data in question, and the request for disclosure will not succeed.⁸⁰⁰ Another obvious consequence of the control test is

⁷⁹⁶ Michael Karlin, "Responsible AI in the Government of Canada: a Sneak Peek" (*Medium* 4 July 2017), Available at <https://medium.com/code-for-canada/responsible-ai-in-the-government-of-canada-a-sneak-peek-973727477bdf>. Accessed on 14 May 2025

⁷⁹⁷ Fenwick McKelvey & Margaret MacDonald, 'Artificial Intelligence Policy Innovations at the Canadian Federal Government' (2019) 44 *Canada Journal of Communication* 43 at 46,

⁷⁹⁸ 'Best Practice Guide: Automated Assistance in Administrative Decision-Making' (*Australian Government*, 2007) 14–15 <<https://www.oaic.gov.au/images/documents/migrated/migrated/betterpracticeguide.pdf>>.

⁷⁹⁹ *Ibid.*

⁸⁰⁰ MJ Madison, 'Legal-Ware: Contract and Copyright in the Digital Age' (1998) 67 *Fordham Law Review* 1025.

that the algorithmic models that automated systems are based on will fall outside of judicial review, a problem well illustrated by the US case of *Loomis*.⁸⁰¹

To sum, the UK can benefit from other jurisdictions to provide insights on the limitations of the UK system and best practice recommendations, foster AI innovation with robust safeguards to avoid marginalising vulnerable populations and enhance fundamental rights. This is to effectively balance economic growth driven by AI with the ethical considerations surrounding ADM.⁸⁰²

The UK's approach should consider a set of best practices for regulating AI and ADM, taking an approach that balances between the models developed by the EU, Australia, Canada, and the US to meet the UK's particular needs in justice. While beneficial for AI-based systems, the EU approach may prove less effective for addressing ADM issues. However, the Canadian and Australian guidelines seem more appropriate and beneficial if make them more enforceable. Therefore, regulating the use of AI in DMP by public bodies should not be the sole focus; RP should be designed to support accountability, contesting and strong oversight mechanisms in a new regulation within the context of administrative justice.⁸⁰³

In the developing field of AI and ADM systems, a hybrid strategy from the international best practises would support a fair framework that encourages innovation, accountability, and protecting individual rights. By implementing these measures, the UK can safeguard individual rights, promote accountability, and ensure that ADM systems are used fairly, ethically, and in accordance with the rule of law. Future research should focus on evaluating the effectiveness of emerging legislation and policies, exploring the practical challenges of implementing technical and legal solutions, and examining the long-term impact of ADM on access to justice and administrative fairness.

⁸⁰¹ *State v. Loomis* (n 424).

⁸⁰² Public Law Project PLP, 'Written Evidence Submitted by Public Law Project (GAI0069)' (2022) available at <https://committees.parliament.uk/writtenevidence/113825/pdf/> accessed on 9 May 2025.

⁸⁰³ Lilian Edwards, Rebecca Williams and Reuben Binns (n 638).

Reflection

As a PhD research focused on this complex topic of AI and ADM in administrative justice, the journey has been richly rewarding but filled with many challenges. Firstly, the scarcity of academic resources in the literature and the limited number of documented and solved cases about automated decisions in the field of administrative law posed a significant obstacle. This scarcity of published research on the practicalities of AI and related applications in ADM is not surprising given that the discipline of artificial intelligence and machine learning has only recently emerged and is a rapidly evolving field of study. This dilemma compelled the study to explore alternative sources of information and enhanced the research determination to search widely. Consequently, it came to rely more on interdisciplinary approaches to fill the gaps, and to go beyond my comfort zone in terms of traditional legal doctrine analysis. These challenges also pushed the study to critically analyse available resources and develop original interpretations to support the arguments, which ultimately developed the methodology.

Secondly, as an international researcher from a different legal background, studying the UK legal system presented a unique set of challenges. Adapting to a new legal framework required a deep understanding of the UK's ADM laws, administrative justice principles, and judicial system, which differed from those in Saudi Arabia. This required extra effort in not only learning but also appreciating the complexities of the UK system. However, this challenge was also a motivation, as exploring the UK legal system provided valuable insights and broadened perspectives under gifted and skilful supervisors with differing areas of expertise at the University of York.

Finally, on reflection, this experience has not only fulfilled an ambition but has inspired to further studies with future research and publishing on administrative ADM in Saudi Arabia. Using knowledge gained from the UK system, the aim is to undertake comparative studies and discover ways of improving the judicial systems through better application of artificial intelligence.

Appendix: Data Extraction Table

The numbers in the table indicate the type of document, the type of challenge it refers to, and the field of law. These numbers are detailed in the table below and in the table (6.1). **A) Type of Document:** 1=Report, 2=Policy/bill/guide/strategy, 3= Study/research/survey, 4= Governmental response, 5=Judgement, 6=Expert evidence, 7=Judge Statement, 8=Video, 9=Podcast.

B) Area of Law: 1=Administrative, 2=Criminal, 3=Civil, 4=Employment, 5=Healthcare, 6=Data protection, 7=Business, 8=Competition, 9=Consumer, 10=AI regulation, 11=Not specified.

C) Type of Challenge: 1=Lack of transparency, 2=Delay, 3=Difficult to provide evidence, 4=Disclosure issue, 5=Limited access to information, 6=Lack of explanation, 7=Regulatory gap, 8=Difficult holding accountability, 9=Lack of authority, 10=Limited redress, 11=Interpretation difficulties, 12=Expertise gap, 13=Cost, 14=Procedural issues, 15=Time limit in judicial review, 16=Litigation cost`

D) Type of Information: 1= Challenges, 2=Response, 3= Both

Appendix 1: Data Extraction Table

#	Code	Document	Source	A) Type of Document	B) Area of Law	C) Challenge	D) Type of Information
Government							
1	G1	AI Barometer Report	1	1	2,5,7	1, 6, 8, 12,	3
2	GV2	Auditing algorithms: the existing landscape, role of regulators and future outlook	1	3	8, 9	1, 7, 10	3
3	GV3	Ethics, Transparency and Accountability Framework for Automated Decision-Making	1	3	1, 6	1, 8	3
4	GV4	A pro-innovation approach to AI regulation: government response	1	4	10	1, 7, 13	3
5	GV5	Review into bias in algorithmic decision-making	1	1	1, 2, 4, 7	1, 3, 6, 7, 10, 12	3
6	GV6	Study on the Impact of Artificial Intelligence on Product Safety	1	4	3, 9	1, 7, 12	1
7	GV7	The King's Speech 2023	1	2	7	-	2
8	GV8	Predictive Policing-West Midlands Police. Response to request based on Freedom of Information Act (736A/22)	1	4	2	-	2
9	GV9	Artificial Intelligence and Public Standards A Review by the Committee on Standards in Public Life	1	4	1	1, 7, 12	3
10	GV10	AI in the UK: ready, willing and able (parliament.uk)	1	4	11	1, 6, 7	1
11	GV11	Automatic Computer-based Decisions: Legal Status, Volume 690: debated on Wednesday 10 March 2021	1	1	10	1, 3, 7	1
12	GV12	The governance of artificial intelligence: interim report	1	1	10	1, 5, 8	3
13	GV13	Artificial intelligence and employment law	1	3	4	1, 7, 8, 11	3
14	GV14	AI and Healthcare	1	1	5	1, 7, 8, 9	1
15	GV15	Policy implications of artificial intelligence (AI)	1	2	2, 5, 10	-	2
16	GV16	Public Authority Algorithmic and Automated Decision-Making Systems Bill [HL]	1	2	10	-	2
17	GV17	Potential impact of artificial intelligence (AI) on the labour market	1	1	4	1, 8	3
18	GV18	Interpretable machine learning	1	3	7	-	2
19	GV19	Technology rules? The advent of new technologies in the justice system	1	1	1,4,	-	2
Cases							
20	CJ1	Bates v. Post Office (2019)	2	5	3	1, 2, 4, 5	1
21	CJ2	Public Law Project V. The Information Commissioner (2023)	2	5	1	4, 5	1

Appendix 1: Data Extraction Table

#	Code	Document	Source	A) Type of Document	B) Area of Law	C) Challenge	D) Type of Information
22	CJ3	Bridges v South Wales Police (2020)	2	5	2	7, 12	3
23	CJ4	Pantellerisco & others v. The SSWP (2020)	2	8	1	1, 6	1
24	CJ5	Johnson and others v. SSWP (2019)	2	5	1	1, 7, 10, 11	3
25	CJ6	Ofqual v. ICO (2023)	2	5	1	4, 5, 7, 12	1
26	CJ7	PLP v. ICO (2022)	2	5	1	1, 4, 8	3
27	CJ8	Pa Edrissa Manjang & other v. Uber	2	5	4	2, 6	1

#	Code	Document	Source	A) Type of Document	B) Area of Law	C) Challenge	D) Type of Information
Institutional Reports							
28	IN1	Machine Learning Algorithms and Police Decision-Making: Legal, Ethical and Regulatory Challenges by Alexander Babuta and Dr Marion Oswald MBE	3	1	2	1, 6, 7	3
29	IN2	Developing AI regulation: findings from PLP's roundtable	3	1	10	7, 9, 10	3
30	IN3	Digital Immigration Status: A Monitoring Framework by PLP	3	1	1, 10	1, 5, 10	3
31	IN4	Machine Learning Used to Stop Universal Credit Payment by PLP	3	1	1	1, 4, 8	3
32	IN5	Transparency mechanisms for UK public-sector algorithmic decision-making systems	3	1	1	1, 5, 8	3
33	IN6	Findings from ICO consensual audits on Freedom of Information of police forces in England and Wales	3	1	2	1, 2, 5	1
34	IN7	Contesting AI explanations in the UK	3	1	1	1, 3, 7, 8, 13	1
35	IN9	All You need to know about AI adoption in Criminal Justice by Manish Garg	3	1	1	1, 7, 9, 12	3
36	IN10	Legal and regulatory frameworks governing the use of automated decision making and assisted decision making by public sector bodies.	3	1	10	1, 6, 7, 10, 12, 13	1
37	IN11	Reforming the law around the use of automated and assisted decision making by public bodies.	3	1	1	2, 3, 5	3
38	IN12	Surveying Judges about artificial intelligence: profession, judicial adjudication, and legal principles	3	3		11	
Judges' Statements							
39	JS1	Algorithms, Artificial Intelligence and the Law. The Sir Henry Brooke Lecture for BAILII Freshfields Bruckhaus Deringer, London Lord Sales, Justice of the UK Supreme Court 12	4	7	2		
40	JS2	Judge Wright statement	4	7	1	2, 7, 11, 12	1
41	JS3	<i>Lord Sales 'Information Law and Automated Governance, Keynote address at the Information Law Conference Institute of Directors, 24 April 2023'</i>	4	7	1		3
42	JS4	<i>Lord Sales Judicial Review Methodology in the Automated State</i>	4	7	1		3

Appendix 1: Data Extraction Table

#	Code	Document	Source	A) Type of Document	B) Area of Law	C) Challenge	D) Type of Information
Expert Evidence					Expert in		
44	EX1	Written Evidence to the Parliament Submitted by Public Law Project	5	6	Legal	1, 3, 4, 7, 8, 10	3
45	EX2	How can the Department of Work and Pensions operate more transparently, lawfully, and fairly?	5	6	Legal	4, 5, 6	1
46	EX3	Professor Andrew Le Sueur, University of Essex, Advisory Evidence on ADM reforms	5	6	Legal	7	3
47	EX4	Written evidence to the Parliament submitted by Dr Alison Powell	5	6	Legal	1	3
48	EX5	Written evidence submitted by The Alan Turing Institute on “algorithms in decision-making” to the House of Commons’ Science and Technology Committee	5	6	Computer and data scientists	1, 7, 13	3
49	EX6	Witness report in ED Bridge v. South Wales Police from Professor Anil Jain	5	6	Computer science and engineering	5	1
50	EX7	The case of transparency, Podcast (voice source) with Joe Tomlinson (https://publiclawproject.org.uk/latest/people-law-power-the-new-podcast-from-plp/)	5	9	Legal	1, 7	3
51	EX8	Witness statements by Carol Krahe in Pantellerisco & others v SSWP (https://www.judiciary.uk/wp-content/uploads/2020/07/R-Pantellerisco-v-SSWP-Final-Approved.pdf)	5	6	IT	5	3
52	EX9	Witness statements by Ms McMahon regarding the technical and administrative aspects of UC system	5	6	Computer science and technology	10	3

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