

THE ACCOUNTABILITY ISSUE IN AUTOMATED ADMINISTRATIVE DECISION- MAKING: TRANSPARENCY, HUMAN OVERSIGHT AND NON- DISCRIMINATION

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ABSTRACT

In questo articolo sono esaminate le sfide poste dai procedimenti amministrativi automatizzati, con particolare attenzione ai settori della migrazione e dell'asilo. Lo studio muove dalla considerazione in base alla quale l'impiego di algoritmi da parte della pubblica amministrazione incide sulla struttura del procedimento amministrativo e sulle garanzie connesse all'esercizio del potere pubblico. Concentrandosi su legalità, partecipazione, trasparenza, controllo umano, non discriminazione e motivazione, l'articolo accoglie l'impostazione secondo cui gli algoritmi sono da considerarsi come strumenti organizzativi, piuttosto che come fonti autonome di un nuovo potere amministrativo. Nelle conclusioni si sostiene che la decisione amministrativa algoritmica può essere conciliata con la legalità amministrativa solo a condizione che le tradizionali garanzie procedurali rimangano effettive in un contesto sempre più mediato da sistemi algoritmici.

This article examines the accountability challenges raised by automated administrative decision-making, with particular attention to the fields of migration and asylum. It argues that algorithmic administration affects the structure of administrative procedure and the guarantees attached to public power. Focusing on legality, participation, transparency, human oversight, non-discrimination and reason-giving, the article contends that algorithms should generally be understood as organisational tools rather than autonomous sources of administrative power. It concludes that algorithmic decision-making can be reconciled with administrative legality only if traditional procedural guarantees remain effective in an environment increasingly mediated by algorithmic systems.

SUMMARY: 1. Introduction. – 2. The legal nature of the algorithm and algorithmic legality.

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– 3. Participation and human oversight. – 4. Transparency, interpretability and explanation. – 5. Non-discrimination, bias and reason-giving. – 6. Conclusion.

1. Introduction

The flexible architecture of administrative law is also reflected in the instruments through which public authorities act. Among these instruments, digital technologies have acquired increasing relevance. Their significance, however, lies not merely in the modernisation of administrative infrastructures, expertise or systems, but in their growing impact on the mechanisms of administrative decision-making. It is precisely this area that marks the shift from digital administration to algorithmic administration: a transition that is not merely terminological, but requires a rethinking of how administrative functions are conceived and performed.

The principal interactions between public authorities and private individuals take place within administrative procedures. For this reason, the shift from traditional to algorithmic administration cannot be treated as a merely technical development. The introduction of algorithmic tools may affect the procedural sequence itself and, far from merely supporting decision-making, may alter the very manner in which administrative functions are carried out¹.

Algorithms may be understood as computational procedures designed to accomplish specified tasks through a finite sequence of operations; in administrative decision-making, they may support, complement or even partly replace human intervention. Their use therefore places pressure on the traditional sequence of the administrative procedure – initiation, preliminary investigation and final measure – and on the guarantees attached to each of its stages.

The delegation of decision-making functions to algorithms raises complex legal and practical questions. The central issue is whether the traditional principles of administrative law remain capable of ensuring accountability when administrative decisions are mediated, influenced or produced by algorithmic systems. This article approaches that question through the principles that structure administrative procedure – participation, transparency,

¹ This transition may also be examined by diverting attention from public administration and extending the analytical scope to the broader phenomenon of evolution from an “information society” to an “algorithm society”. In this regard, see L. PREVITI, *La decisione amministrativa robotica*, Naples, 2022, p. 15.

impartiality and sound administration – and argues that algorithmic accountability requires, in particular, transparency, meaningful human oversight and effective safeguards against discrimination.

These issues acquire particular significance in migration and asylum decision-making. In areas such as visa applications, asylum procedures, border controls and returns, administrative decisions often affect persons in particularly vulnerable positions and may have serious consequences for their legal status, liberty, family life and access to protection. The use of algorithmic tools in these fields therefore makes accountability especially delicate: opacity may prevent affected persons from understanding how a decision was reached, while procedural vulnerability and linguistic, social or legal barriers may make participation and contestation particularly difficult².

The article proceeds in four steps. It first clarifies the legal nature of the algorithm and the issue of algorithmic legality. It then examines how algorithmic decision-making affects participation and human oversight. Third, it focuses on transparency, interpretability and the right to an explanation. Finally, the article considers non-discrimination and bias, before concluding that algorithmic administration can be reconciled with good administration only if traditional procedural guarantees are reinterpreted in light of the specific risks generated by automated decision-making.

2. The legal nature of the algorithm and algorithmic legality

An algorithm³ has been defined as a calculation procedure that deploys a

² On the use of new technologies in European migration and asylum governance, see D. OZKUL, *Automating Immigration and Asylum: The Uses of New Technologies in Migration and Asylum Governance in Europe*, Oxford, 2023; A. RINALDI, S.A. TEO, *The Use of Artificial Intelligence Technologies in Border and Migration Control and the Subtle Erosion of Human Rights*, in *International and Comparative Law Quarterly*, Vol. 74, 2025, 61-89. On the broader procedural and constitutional sensitivity of asylum and border procedures, see M. SAVINO, *La sentenza “Alace” sui Paesi sicuri: il modello europeo di tutela dei diritti è compatibile con la Costituzione?*, in *Quaderni costituzionali*, No 4, 2025, pp. 983–992.

³ On administrative decision-making and algorithms see: G. AVANZINI, *Decisioni amministrative e algoritmi informatici. Predeterminazione, analisi predittiva e nuove forme di intelligibilità*, Naples, 2019; L. PREVITI, *La decisione amministrativa robotica*, cit.; A. DI MARTINO, *Tecnica e potere nell'amministrazione per algoritmi*, Naples, 2023; G. GALLONE, *Riserva di umanità e funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo*, Padua, 2023; M.B. ARMIENTO, *Pubbliche amministrazioni e intelligenza artificiale*, Naples, 2024; N.A. SMUHA, *Algorithmic Rule By Law. How Algorithmic Regulation in the Public Sector Erodes the Rule of Law*,

sequence of simple operations in order to solve a task within a finite time⁴. The analogy with administrative procedure is evident, since procedural administrative activity is itself «an activity ordered in sequences»⁵. Yet this analogy must not obscure the differences between algorithmic processing and administrative decision-making. Rule-based or model-based algorithms operate through predetermined “if/then” instructions set by human programmers; machine-learning systems, by contrast, consist not only of source code but also of a model generated during the training phase, whose parameters are not directly comprehensible to human beings⁶. This distinction is decisive for the legal assessment of algorithmic administration, because it affects legality, transparency, human oversight and accountability.

The question of the algorithm’s legal nature is inseparable from a broader inquiry into whether algorithmic decision-making complies with the principles governing administrative procedure. In the Italian legal system, the absence of a specific statutory regime on the use of algorithms by public authorities has left much of the issue to case law. Supranational law, particularly the GDPR and the AI Act, only partly fills this gap, but does not eliminate the need to assess algorithmic administration through the categories of administrative law.

The use of algorithms in administrative decision-making has led scholars and courts to ask whether software should be classified as an administrative act. The debate has traditionally moved between two positions: one denying such qualification, because software is expressed in computer language and is often designed by persons other than the administrative authority⁷; the other treating the algorithmic rule as legally relevant within the administrative procedure, especially where it contributes to the formation of administrative will⁸. A more

Cambridge, 2024; C. RAMOTTI, *Administrative action in the age of algorithmic transformation. From rule-based procedures to principle-guided decision-making*, Turin, 2025.

⁴ B. CAROTTI, *Algoritmi e poteri pubblici: un rapporto incendiario*, in *Giornale di diritto amministrativo*, No 1, 2020, p. 5.

⁵ B.G. MATTARELLA, *Il procedimento*, in S. CASSESE (ed.), *Istituzioni di diritto amministrativo*, Milan, 2012, p. 286. In the original wording, «una attività ordinate in sequenze».

⁶ L. TORCHIA, *Lo Stato digitale. Una introduzione*, Bologna, 2023, pp. 111-114; G. CARULLO, *Decisione amministrativa e intelligenza artificiale*, in *Diritto dell’informazione e dell’informatica*, No 3, 2021, pp. 434-440.

⁷ Specifically: A.G. OROFINO, *La patologia dell’atto amministrativo elettronico: sindacato giurisdizionale e strumenti di tutela*, in *Foro Amministrativo-C.d.S.*, No 9, 2002, pp. 2256-2281.

⁸ Among them: U. FANTIGROSSI, *Automazione e pubblica amministrazione. Profili giuridici*, Bologna, 1993, pp. 51-62; A. MASUCCI, *L’atto amministrativo informatico. Primi lineamenti di una ricostruzione*, cit., pp. 56-60.

convincing approach is offered by the syncretistic thesis⁹, according to which the legal qualification of the algorithm depends on the role it plays in the specific administrative process. Rather than an act in itself, the algorithm should generally be understood as a tool used by public authorities to reach a decision. Its influence varies according to the degree of decisiveness delegated to it, but it remains a means used by the authority to pursue the public interest. The practical importance of legal qualification emerges most clearly in relation to access to source code, which is distinct from the algorithm itself and may be relevant for the exercise of access rights over administrative documents¹⁰.

The question of legal nature leads directly to algorithmic legality. The use of algorithms in public decision-making cannot be excluded a priori; its lawfulness depends on whether the algorithm is understood as a technological tool available to the authority or as the exercise of a novel form of administrative power. Only in the latter case would express legislative authorisation be required¹¹.

The first solution is more persuasive. Italian law already contains provisions that support the general use of digital tools by public authorities. Article 3-bis of Law 241/1990 encourages the use of computerised and telematic tools to improve administrative efficiency, while the Digital Administration Code requires public authorities to use ICT in pursuing efficiency, effectiveness, impartiality, transparency, simplification, participation, equality and non-discrimination, and provides for the digital management of administrative procedures. In the Italian legal system, these provisions support the idea that recourse to algorithms may be understood as an organisational choice rather than as the exercise of a new power¹².

This conclusion is easier to sustain in relation to model-based algorithms, where the authority identifies the criteria and objectives upstream. It becomes more problematic in relation to machine-learning systems, whose capacity to generate autonomous correlations may weaken the authority's control over the decision-making process¹³. In any event, the existence of a legal basis is only the starting point. Algorithmic legality cannot be reduced to the mere lawfulness of

⁹ M. TIMO, *Algoritmo e potere amministrativo*, in *Il diritto dell'economia*, No 1, 2020, pp. 783-784.

¹⁰ TAR. Lazio, sez. III-bis, decision of 1 July 2020, No 7526.

¹¹ On algorithmic legality, see: L. TORCHIA, *Lo Stato digitale. Una introduzione*, cit., pp. 114-117; E. CARLONI, *I principi della legalità algoritmica. Le decisioni automatizzate di fronte al giudice amministrativo*, in *Diritto amministrativo*, No 2, 2020, pp. 273-304.

¹² L. TORCHIA, *Lo Stato digitale. Una introduzione*, cit., p. 115.

¹³ B. MARCHETTI, *L'amministrazione digitale*, in B.G. MATTARELLA, M. RAMAJOLI (dirs.), *Enciclopedia del diritto*, I tematici, Funzioni amministrative, Milan, 2022, pp. 96-100.

using technological tools; it also requires compliance with the principles governing administrative action.

3. Participation and human oversight

Participation of interested parties constitutes a key stage in the administrative procedural sequence. In the context of algorithmic decision-making, two questions arise. The first concerns the form that participation may take in a procedure increasingly condensed by automation: whether any space remains for meaningful engagement with the private party and whether the participatory guarantees set out in Law 241/1990 can still operate effectively. The second concerns the relationship between interested parties and the official responsible for the procedure, whose role may be reduced, or even supplanted, by algorithmic processing.

Existing procedural legislation was not designed with algorithmic administration in mind. Article 22 GDPR partly addresses the problem by recognising, in cases of solely automated decision-making producing legal or similarly significant effects, the right to obtain human intervention, to express one's point of view and to contest the decision. These guarantees are not identical to participation under administrative procedure law, but they confirm that automated decision-making cannot be detached from human intervention and effective participation.

The AI Act¹⁴ develops this logic more explicitly through Article 14, which applies to high-risk AI systems. Human oversight must be embedded from the design and development phase and must be proportionate to the type of system and the context of use. More importantly, Article 14 gives operational content to oversight: human operators must have sufficient knowledge of the system, remain aware of the risk of automation bias, be able to interpret outputs critically, and possess the authority to override, disregard, adjust or halt the system where necessary. Human oversight is therefore not a formal requirement, but a substantive safeguard aimed at preserving accountability.

¹⁴ On the AI Act, see: P. HACKER, *Sustainable AI Regulation*, in *Common Market Law Review*, No 2, 2024, pp. 345-386; B. MARCHETTI, *Artificial Intelligence and Public Authorities: Does the European AI Act Protect Public Values?*, in *European Review of Public Law*, No 1, 2024, pp. 67-90; N.A. SMUHA, K. YEUNG, *The European Union's AI Act: Beyond Motherhood and Apple Pie?*, in N.A. SMUHA (ed.), *The Cambridge Handbook on the Law, Ethics and Policy of Artificial Intelligence*, Cambridge, 2025, pp. 228-258.

Italian Law 132/2025¹⁵ follows the same direction, requiring AI in public administration to remain instrumental and supportive, while preserving the autonomy and responsibility of the human decision-maker.

Italian administrative courts have played a central role in defining the limits of algorithmic decision-making¹⁶. Early judgments expressed strong reservations towards procedures in which no human administrative activity appeared to take place, stressing that an algorithm cannot in itself guarantee procedural safeguards, participation or the duty to give reasons¹⁷. Subsequent decisions adopted a more open approach, especially in relation to serial or standardised procedures based on objectively verifiable data¹⁸. Yet the courts have consistently insisted that the use of algorithms cannot circumvent the principles governing administrative activity. In particular, case law has identified three requirements: the knowability or comprehensibility of the algorithmic rule, the non-exclusivity of algorithmic decision-making, and algorithmic non-discrimination¹⁹.

Participation begins with information. The notice of initiation of proceedings is therefore essential because it makes administrative activity visible and enables interested parties to exercise participatory rights. Digital tools may facilitate this function by improving the identification of interested parties, reducing the time and cost of notification, and supporting access to the electronic file²⁰. However, algorithmic procedures create a different problem. Where the preliminary investigation is condensed by automation, it becomes difficult to identify the procedural stage at which meaningful participation can occur. The

¹⁵ The Italian law on artificial intelligence, which expressly seeks to align the national regulatory framework with the AI Act, devotes a single provision – Article 14 – to the use of AI in public administration. While broad in scope, this provision lacks specific detail.

¹⁶ By way of example, see: TAR. Lazio, sez. III-bis, decisions of 10 September 2018, Nos 9224-9230; Cons. Stato, decision 2270/2019; Cons. Stato, sez. VI, decision of 13 December 2019, No 8472; TAR Lazio, sez. III-bis, decision 7526/2020; Cons. Stato, sez. VI, decision of 4 February 2020, No 881. On administrative judges and algorithms, see: E. CARLONI, *I principi della legalità algoritmica. Le decisioni automatizzate di fronte al giudice amministrativo*, cit.; F. COSTANTINO, *Algoritmi, intelligenza artificiale e giudice amministrativo*, in *Giurisprudenza italiana*, No 6, 2022, pp. 1527-1536.

¹⁷ TAR Lazio Nos 9224-9230/2018.

¹⁸ Cons. Stato, decision 2270/2019.

¹⁹ Cons. Stato, decision 881/2020.

²⁰ On the notice of initiation of proceedings in algorithmic decision-making, see: D.-U. GALETTA, *Digitalizzazione e diritto ad una buona amministrazione (il procedimento amministrativo, fra diritto Ue e tecnologie ICT)*, in R. CAVALLO PERIN, D.-U. GALETTA (ed.), *Il diritto dell'amministrazione pubblica digitale*, Turin, 2020, pp. 95-99; L. TORCHIA, *Lo Stato digitale. Una introduzione*, cit., pp. 126-129.

interested party may not know that an algorithm is being used, may not understand its purpose, and may be unable to engage with the logic on which the decision ultimately rests. For this reason, participation in algorithmic administration cannot be reduced to formal notice; it requires information that is sufficiently meaningful to allow the private party to intervene effectively.

Human oversight²¹ is the institutional counterpart of participation. Since algorithmic outcomes are shaped by upstream human choices concerning data selection, system design and operational parameters, human control must not be confined to the final moment of validation. It must be integrated from the earliest stages and maintained throughout the system's lifecycle. This is particularly important because human supervisors must be able not only to receive the output, but also to understand it, detect errors or bias, and override, adjust or suspend the system where necessary.

The final issue is accountability. The use of algorithmic tools does not displace responsibility from the public authority to the algorithmic system. Administrative courts have progressively moved from a strict view, according to which computerised procedures could only play an auxiliary role, towards an approach focused on human verification and legal attribution²². What matters is that a human official remains capable of engaging with the output, verifying its consistency with the applicable legal framework and assuming responsibility for the final measure. If the algorithm is a tool in the hands of the public authority, accountability for the decision must remain with that authority. Human oversight, therefore, is not simply a technical safeguard; it is the condition that allows algorithmic decision-making to remain legally attributable, reviewable and compatible with the principles of administrative procedure.

4. Transparency, interpretability and explanation

Transparency is closely linked to digitalisation, but digitalisation does not automatically make administrative action more transparent. Traditional legal instruments of transparency must be adapted to the new methods through which public authorities act. This is particularly evident in algorithmic decision-

²¹ Concerning the human-in-the-loop: M. LETA JONES, *The right to a human in the loop: Political constructions of computer automation and personhood*, in *Social Studies of Science*, No 2, 2017, pp. 216-239; B. MARCHETTI, *La garanzia dello Human in the loop alla prova della decisione amministrativa algoritmica*, in *BioLaw Journal*, No 2, 2021, pp. 367-385.

²² Cons. Stato, decision 8472/2019.

making. In this context, lack of transparency may take at least three forms: lack of clarity as to whether an algorithmic system is being used; opacity regarding how the system is applied; and limited understanding of how it operates internally²³.

It is therefore necessary to distinguish between two forms of transparency: “fishbowl transparency” and “reasoned transparency”²⁴. The former concerns the possibility for interested parties to look inside the workings of an authority and obtain information on what it does, through access to data, documents and information. The latter concerns the reasons why an authority acts in a certain way and the rationale behind the decision. The two dimensions are distinct but connected: reasoned transparency presupposes some degree of access to the elements on which the decision is based.

These requirements are reflected in supranational law. Articles 13, 14 and 15 GDPR require the data subject to receive information on the existence of automated decision-making, the logic involved and the envisaged consequences of the processing²⁵. The AI Act complements this framework by moving from mere knowability towards operational interpretability. Article 13 requires high-risk AI systems to be accompanied by instructions that are clear, complete, accessible and intelligible, enabling users to interpret outputs and use the system appropriately. Article 86 further provides, in certain cases, a right to a clear and meaningful explanation of individual decisions based on the output of a high-risk AI system, including the role played by the system and the main elements informing the decision.

Algorithmic opacity may also be described as linguistic, legal and structural. It is linguistic because algorithms are expressed in technical rather than legal language; legal because access to source code may be limited by proprietary or secrecy claims; and structural because machine-learning and deep-learning systems may generate outcomes through processes that are not fully intelligible even to their developers²⁶.

²³ N.A. SMUHA, *Algorithmic Rule By Law. How Algorithmic Regulation in the Public Sector Erodes the Rule of Law*, cit., pp. 59-61.

²⁴ On this distinction, see in particular C. COGLIANESE, D. LEHR, *Transparency and Algorithmic Governance*, cit., pp. 18-22.

²⁵ On the debate concerning the existence of a right to explanation under the GDPR, see: S. WACHTER, B. MITTELSTADT, L. FLORIDI, *Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation*, in *International Data Privacy Law*, No 2, 2017, pp. 76-99; G. MALGIERI, G. COMANDÈ, *Why a right to legibility of automated decision-making exists in the General Data Protection Regulation*, in *International Data Privacy Law*, No 4, 2017, pp. 243-265.

²⁶ G. LO SAPIO, *La trasparenza sul banco di prova dei modelli algoritmici*, in *federalismi.it*,

The problem is particularly acute in machine-learning systems, where the absence of a direct and predictable relationship between input and output makes reasoned transparency more difficult than in rule-based systems. As has been insightfully observed, artificial intelligence, with its black box, has already silently entered the glasshouse of public administration²⁷. The question is therefore whether, and how, the opacity generated by these systems can be remedied. The metaphor of the black box²⁸ refers to the highest level of opacity characterising certain machine-learning and deep-learning systems, where the path followed in processing inputs and producing outputs cannot be fully reconstructed even by programmers or developers. This does not mean that such systems are necessarily irreversibly opaque; rather, it shows that transparency cannot be limited to the disclosure of code, but must also concern the data, assumptions, testing procedures and interpretative criteria surrounding the system.

Source code is relevant to the first dimension of transparency, because it may reveal the technical instructions through which the program operates. Italian administrative courts have recognised this point in relation to algorithmic procedures used in public competitions. In TAR Lazio, decision 7526/2020, the court held that there were no legal obstacles to recognising a right of access to the source code of an algorithm used in an automated administrative process. Since the software contributed to the formation of administrative will in a procedure of public relevance, denying access would have created a “double track” in which transparency was weaker in procedures managed through technological tools than in traditional ones. The source code may therefore be treated, in appropriate cases, as an accessible administrative document²⁹.

This extensive understanding of access is important, but insufficient. Access to source code may allow the interested party to know that the administration acted through an algorithm and to inspect the technical component of that choice. It does not necessarily allow them to understand the logic that led to the outcome. Source code is normally unintelligible to non-experts; it may reveal the

No 11, 2021, pp. 243-244.

²⁷ Literally, «l'intelligenza artificiale (con la sua “scatola nera”) è già entrata silenziosamente nella “casa di vetro” dell'Amministrazione, senza bussare, senza chiedere autorizzazioni», citing P. OTRANTO, *Riflessioni in tema di decisione amministrativa, intelligenza artificiale e legalità*, in *federalismi.it*, No 7, 2021, p. 204.

²⁸ On algorithms and black boxes, see: F. PASQUALE, *Black box society. The secret algorithms that control money and information*, Cambridge-London, 2015; C. COGLIANESE, D. LEHR, *Regulating by Robot: Administrative Decision Making in the Machine-Learning Era*, in *The Georgetown Law Review*, No 6, 2017, pp. 1147-1223.

²⁹ Cons. Stato, sez. IV, decision of 4 June 2025, No 4857.

programming language rather than the intermediate reasons that shaped the output; and, especially in data-driven systems, meaningful understanding also requires knowledge of the input data³⁰. Access to source code may therefore contribute to fishbowl transparency, but it does not by itself secure reasoned transparency.

The point, therefore, is to avoid the risk of «knowing without understanding»³¹. In algorithmic administration, transparency cannot be reduced to disclosure. It must enable comprehension of the role played by the algorithm, the main elements informing the decision and the reasons why a certain outcome was reached. This is the condition under which transparency can support participation, human oversight and judicial review.

5. Non-discrimination, bias and reason-giving

The preceding analysis examined how algorithmic tools affect the formation of administrative will. The focus must now shift to the final administrative measure and to its compatibility with impartiality, sound administration and non-discrimination. This requires considering whether the decision's content and effects are affected by human bias, algorithmic bias or automation bias, and whether the statement of reasons makes the legal grounds and evaluative process intelligible³².

The use of algorithms is less problematic in legally bound or highly standardised procedures, where the outcome is largely predetermined by the applicable rule and the factual assumptions. It becomes more delicate in discretionary procedures, where the authority must weigh competing public and private interests. Italian administrative case law has reflected this tension: early decisions were cautious about the use of algorithms beyond constrained activities³³, while later judgments accepted their use in serial or standardised

³⁰ L. PREVITI, *La decisione amministrativa robotica*, cit., p. 220.

³¹ Literally, «sapere senza capire». In these terms, L. TORCHIA, *Lo Stato digitale. Una introduzione*, cit., p. 155.

³² On the relationship between the algorithms used by public authorities in decision-making and the duty to give reasons for administrative acts, see J. PALAIRET, *Reason-Giving in the Age of Algorithms*, in *Auckland University Law Review*, Vol. 26, 2020, pp. 92-119.

³³ TAR Lazio, decision 3769/2017.

procedures based on objectively verifiable data³⁴. More recent case law has also opened the door to algorithmic support in procedures involving a limited degree of discretion, provided that human evaluation is not replaced and procedural safeguards are preserved³⁵. The issue should therefore not be framed as an abstract opposition between admissibility and prohibition, but as a question of the degree of discretion involved and of the safeguards required to preserve human responsibility, transparency and non-discrimination.

It would be simplistic, however, to assume that human decision-making is inherently more reliable than algorithmic processing. Human error and human bias remain constant risks³⁶. At the same time, algorithmic systems may reproduce or amplify distortions embedded in the data on which they are trained, including inaccuracies, structural inequalities and patterns generated by previous administrative or social decisions. Bias is therefore not exclusively human or exclusively algorithmic: it often emerges from their interaction.

This is especially evident in asylum decision-making, where machine-learning tools may not eliminate discretionary bias, but instead relocate it to earlier stages of data selection, classification and system design³⁷.

This problem is reinforced by automation bias, namely the tendency of human decision-makers to place excessive trust in algorithmic outputs. The AI Act addresses this risk through Article 14(4), which requires human overseers of high-risk AI systems to understand the system's capabilities and limitations, monitor its operation and remain aware of the risk of over-reliance on its outputs. Article 10(5) also permits, under strict conditions and with appropriate safeguards, the processing of special categories of personal data where this is necessary to detect and correct bias in high-risk AI systems.

What becomes clear is the mutual relationship between human bias and algorithmic bias. Since algorithmic logic ultimately depends on human choices concerning design, data selection and modelling assumptions, the decisive

³⁴ Cons. Stato, decision 2270/2019.

³⁵ TAR Campania, sez. III, decision of 14 November 2022, No 7003.

³⁶ On human bias and automation bias, see: K. SEABORN, *Bots against Bias. Critical Next Steps for Human-Robot Interaction*, in W. BARFIELD, Y.-H. WENG, U. PAGALLO (eds), *The Cambridge Handbook of the Law, Policy, and Regulation for Human-Robot Interaction*, Cambridge, 2024, p. 362; A. POAMA, E. FOSCH-VILLARONGA, *Ai bias*, in S. DE SILVA ET AL. (eds), *Expert Essentials*, Oxford, 2025; J. LAUX, H. RUSCHEMEIER, *Automation Bias in the AI Act: On the Legal Implications of Attempting to De-Bias Human Oversight of AI*, 30 January 2025.

³⁷ On asylum decision-making, machine learning and the displacement of discretionary bias, see M. ARVIDSSON, G. NOLL, *Decision Making in Asylum Law and Machine Learning. Autoethnographic Lessons Learned on Data Wrangling and Human Discretion*, in *Nordic Journal of International Law*, Vol. 92, 2023, pp. 56-92.

safeguard is traceability. Courts, affected individuals and the public must be able to reconstruct the reasoning behind the decision in order to assess its legality, fairness and non-discriminatory character.

The statement of reasons is the point at which participation, transparency and non-discrimination converge. Participation and transparency allow the interested party to understand and contest the elements on which the decision is based; the statement of reasons, in turn, must reflect those elements and make the final decision legally intelligible. In algorithmic procedures, this obligation cannot be satisfied by merely indicating that software was used. The authority must explain the factual basis of the decision, the applicable legal rule, the role played by the algorithm and, where discretion is involved, the way in which competing interests were weighed.

The intensity of this duty varies according to the type of administrative activity³⁸ and the type of algorithm used. In legally bound procedures supported by model-based algorithms, the statement of reasons may often be limited to identifying the relevant legal rule, the factual assumptions and the way in which the algorithm applied predetermined criteria. By contrast, where machine-learning systems are used in discretionary contexts, the duty to give reasons becomes more demanding. The authority must be able to explain not only the final outcome, but also why reliance on the algorithm was appropriate, how the output was verified, and how possible bias or discriminatory effects were assessed. Knowledge of the algorithm and comprehensibility of the final measure therefore operate on two distinct but connected levels: the former must be ensured *ex ante*, through transparency about the system, while the latter must be ensured *ex post*, through a reasoned and reviewable administrative measure.

Non-discrimination in algorithmic administration therefore depends on more than the absence of discriminatory intent. It requires procedures capable of detecting bias, human oversight capable of resisting automation bias, transparency sufficient to make the algorithmic contribution intelligible, and a statement of reasons that allows affected parties and courts to understand why a certain decision was adopted. Only under these conditions can algorithmic decision-making remain compatible with impartiality, sound administration and effective judicial review.

³⁸ On reason-giving in legally bound and discretionary administrative measures, see L. PREVITI, *La decisione amministrativa robotica*, cit., pp. 256-257; G. AVANZINI, *Decisioni amministrative e algoritmi informatici. Predeterminazione, analisi predittiva e nuove forme di intelligibilità*, cit., pp. 147-152.

6. Conclusion

The present article has shown that public administrations cannot realistically abandon the use of algorithms in decision-making. Algorithmic tools may bring benefits in terms of efficiency, simplification and acceleration, but these advantages must be considered together with the fact that public administrations often remain insufficiently prepared for such a transformation, lacking the skills, infrastructure and operational guidance required to govern algorithmic systems effectively. A solely regulatory response to the digital phenomenon is therefore insufficient. As has been aptly noted, one should «be careful not to treat the law as a panacea for all the challenges raised by technology»³⁹. Legal rules are indispensable, but they must be accompanied by technical expertise, institutional capacity, digital literacy and organisational models capable of preserving human responsibility within automated processes.

Further legislative and institutional guidance nevertheless remains necessary. To remain in control of algorithmic systems, public administrations must know the boundaries within which they may operate, the safeguards they must preserve and the forms of accountability that must accompany automated decision-making.

This does not mean that traditional administrative guarantees should be retracted because of the nature of algorithmic activity. On the contrary, the analysis developed in this article suggests that participation, transparency, impartiality, sound administration and reason-giving must be recalibrated rather than sacrificed. The point is not to define a lower minimum of protection in exchange for efficiency, but to reinterpret existing guarantees so that they remain effective in algorithmic environments.

In this respect, the AI Act provides an important framework. Compliance with the requirements laid down in Articles 10 to 14 – concerning data governance, technical documentation, transparency, human oversight, accuracy, robustness and cybersecurity – should, in principle, help public administrations align algorithmic decision-making with the constitutional and legal safeguards underpinning the Rule of Law⁴⁰. Yet the European framework does not eliminate all risks. Core guarantees such as participation, transparency and non-discrimination remain exposed to erosion, especially where machine-learning

³⁹ N.A. SMUHA, *The Use of Algorithmic Systems by Public Administrations*, in N.A. SMUHA (ed.), *The Cambridge Handbook on the Law, Ethics and Policy of Artificial Intelligence*, cit., p. 410.

⁴⁰ On this point, see B. MARCHETTI, *Artificial Intelligence and Public Authorities: Does the European AI Act Protect Public Values?*, cit.

systems generate opacity, autonomous adaptability and complexity that defy full understanding or explanation.

These risks are particularly visible in migration and asylum decision-making. In these fields, algorithmic tools may contribute to decisions concerning entry, residence, protection, border control or return. Affected persons may already face significant obstacles in understanding the procedure, accessing information, producing relevant evidence or contesting the decision. For this reason, the guarantees analysed in this article are not merely formal requirements, but essential safeguards against the risk that algorithmic opacity may reinforce existing asymmetries between public authorities and individuals.

In algorithmic administration, participation, transparency, human oversight, reason-giving and non-discrimination are structurally interdependent. Participation is meaningful only if the process is transparent; transparency is insufficient without intelligibility; human oversight requires the capacity to understand and contest the output; reason-giving requires traceability; and non-discrimination requires that bias be detectable and contestable. If one element weakens, the others are compromised, and with them the legality of the administrative process.

Only under these conditions can algorithmic decision-making be reconciled with administrative legality: not by replacing traditional guarantees, but by making them effective in fields such as migration and asylum, in which public power is increasingly mediated by algorithmic systems.

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