

Administrative Decisions Issued by Algorithms in Public Services: The Black Box Problem and the Right to Explanation: A Comparative Study in Light of Algerian Legislation

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Abstract:

The algorithmic administrative decision represents one of the most significant legal outputs of the digital revolution that has swept through public services. Artificial intelligence systems are now penetrating the hard core of administrative work by issuing decisions that produce legal effects on citizens' legal status. This study seeks to analyze the legal nature of this emerging category of decisions and to uncover the crisis it generates for the administrative reasoning requirement, due to the "black box" phenomenon, which prevents understanding of the algorithm's logical pathway. The study further examines the legal solutions proposed by comparative jurisprudence and case law to overcome this problem, foremost among which is the consecration of the "right to explanation" as an emerging procedural guarantee. The study concludes that recent Algerian legislation, particularly Law No. 25-11 of 2025, has established the legal basis for the protection of citizens against arbitrary automated decisions; however, its effective implementation depends on the technical qualification of administrative judges and on the strengthening of institutional control of public algorithms.

Keywords: Algorithmic Administrative Decision; Artificial Intelligence; Black Box; Judicial Review; Public Service; Reasoning; Right to Explanation.

المخلص

يمثل القرار الإداري الخوارزمي أحد أهم الإفرازات القانونية للثورة الرقمية التي اجتاحت المرافق العامة، إذ باتت أنظمة الذكاء الاصطناعي تفتح النواة للعمل الإداري بإصدار قرارات ذات أثر قانوني على المراكز القانونية للأفراد، حيث تسعى هذه الدراسة إلى تحليل الطبيعة القانونية لهذا النمط المستحدث من القرارات، وكشف الأزمة التي يفرزها على ركن التسبب الإداري بفعل ظاهرة الصندوق الأسود التي تحول دون فهم المسار المنطقي للخوارزمية. وتبحث الدراسة أيضا في الحلول القانونية التي اقترحها الفقه والقضاء المقارنان لتجاوز هذا الإشكال، وعلى رأسها تكريس "الحق في التفسير" كضمانة إجرائية مستحدثة. وتخلص الدراسة إلى أن النصوص الجزائية الحديثة، ولا سيما القانون رقم 25-11 لسنة 2025، قد وضعت الأساس القانوني لحماية المرفق من تعسف القرارات الآلية، غير أن التطبيق الفعلي يظل رهينا بتأهيل القضاء الإداري وتدعيم الرقابة المؤسسية على الخوارزميات العمومية. الكلمات المفتاحية: القرار الإداري الخوارزمي، الذكاء الاصطناعي، الصندوق الأسود، الحق في التفسير، التسبب، المرفق العام، الرقابة القضائية.

INTRODUCTION

The contemporary world is undergoing a profound digital transformation that has reshaped the relationship between the State and its citizens, and has given rise to a new pattern of administrative activity based on the increasing reliance on artificial intelligence technologies in managing public services. This transformation is no longer a mere technological luxury that the administration seeks to improve its performance; rather, it has become a legal obligation imposed by the requirements of the proper functioning of public services and good governance, as reflected in the new Algerian institutional framework represented by the High Commission for Digitization (la Haute Commission de Numérisation), established pursuant to Presidential Decree No. 23-413 of September 6, 2023.

However, the penetration of algorithms into the hard core of administrative work — namely the issuance of decisions affecting individuals' legal status — has placed the general theory of administrative decisions before a genuine existential test. The administrative decision, which jurisprudence has long regarded as an expression of a conscious human will, now emanates from a machine operating according to a computational logic that may defy human understanding itself. This emerging category of decisions is termed the "algorithmic administrative decision" — a concept that has generated an epistemological shift in the classical axioms of administrative law.

The legal gravity of this new type of decision becomes particularly apparent when it comes to the reasoning requirement, which is one of the most important procedural guarantees established to protect citizens from administrative arbitrariness. How can the administration disclose the reasons that led it to make a particular decision if it is itself incapable of understanding the logical pathway of the algorithm that made the decision? This problem, referred to as the "Black Box Problem," threatens to transform technology from a tool for rationalizing public service into a cover for arbitrary decisions that are not subject to review.

1. Research Problem

The main problem of this study revolves around the following question:

To what extent can the legal regime governing the algorithmic administrative decision accommodate the requirements of the traditional reasoning requirement, and how does the consecration of the "right to explanation" as an emerging guarantee contribute to overcoming the dilemmas of the black box and ensuring effective judicial review of the acts of the smart public service?

This main problem branches into several sub-questions:

- What is the legal nature of the algorithmic administrative decision, and what are the limits of its conformity with the classical theory of administrative decisions?
- How does the black box phenomenon affect the reasoning requirement in administrative decisions?
- To what extent is the Algerian legal arsenal sufficient to regulate this new category of decisions?
- What procedural mechanisms has comparative administrative jurisprudence adopted to overcome these problems?

2. Significance of the Study

This study holds multidimensional academic and practical significance. From an

academic perspective, it contributes to expanding the field of research in digital administrative law by linking the theory of administrative decisions to the transformations imposed by artificial intelligence applications. From a practical perspective, it proposes concrete legal solutions that may guide the Algerian legislator and administrative judges when confronting disputes related to automated decisions, especially in light of the growing use of algorithms in tax platforms, social security systems, and digital civil status registries.

3. Methodology

The study relies on a set of integrated methodologies, most notably the analytical method to deconstruct the concept of the algorithmic administrative decision and observe its impact on classical principles; the comparative method to review the judicial and legislative experiences in European traditions (French, Dutch, and German) and the American tradition, while projecting these experiences onto the Algerian legal context; and the inductive method to derive possible legal solutions through the adaptation of existing rules.

4. Structure of the Study

To address this problem in a systematic academic manner, this study is divided into two integrated sections: The first section addresses the legal nature of the algorithmic administrative decision and the reasoning crisis in light of the black box phenomenon. The second section addresses the right to explanation as an emerging guarantee and the adaptation of judicial review to automated decisions.

Section One: The Legal Nature of the Algorithmic Administrative Decision and the Reasoning Crisis

The investigation of the algorithmic reasoning problem requires starting from the conceptual foundation of the algorithmic administrative decision and defining its legal nature (I), before delving into the reasoning crisis caused by the black box phenomenon in the digital administrative environment (II).

I. Conceptual Foundation of the Algorithmic Administrative Decision

The classical concept of the administrative decision is based on its being "a unilateral legal act issued by an administrative authority, aiming to produce a legal effect on the legal status of individuals". When this concept is projected onto the contemporary technological environment, the algorithmic decision emerges as the product of an automated process handled by artificial intelligence software. Modern doctrine defines it as "the act taken based on pre-programmed computational and logical operations, where the automated system receives data as input, processes it according to specific rules, and issues a result that affects the legal status of the citizen" (2019, ملاح).

The French agency Etalab, considered the technical arm of the State in digital governance, has adopted an operational definition considered a reference in this area, which defines the algorithmic decision as "any individual administrative decision issued by a public authority on the basis of algorithmic processing, wholly or partially" (Etalab, 2023).

1. Technical Classification of Administrative Algorithms

The jurisprudence distinguishes three categories of algorithms in public services, differing in their degree of complexity and potential for review (Coglianese, C., & Lehr, D, 2017):

— The first: Deterministic Algorithms, where a given input always produces a totally

predictable output. For example, the algorithm used to calculate income tax or retirement benefits.

— Second category: Statistical algorithms that make recommendations based on the analysis of patterns from previous data. They are generally used in risk assessment and file sorting.

— The third category: Machine Learning and Deep Learning algorithms. These are the most problematic from a legal perspective, as they develop their rules autonomously, by training on massive amounts of data, making tracing their logic extremely difficult.

2. Legal Nature of the Algorithmic Decision: Between Continuity and Rupture

The algorithmic administrative decision does not represent a complete rupture with the classical administrative decision; rather, it is an extension of it in terms of purpose (achieving the public interest) and effect (creating, modifying, or abolishing a legal status). However, it differs from it in the "means" and "mechanism of creation"; the programming effort of the machine replaces the intellectual effort of the civil servant. This is what the French jurist Jean-Bernard Auby pointed out, affirming that administrative law is experiencing a "paradigmatic shift equivalent in importance to the transformations at the end of the nineteenth century with the birth of the theory of public service" (Auby, 2018).

The core challenge lies in the will element, which is the defining element of administrative decisions. Does the algorithm possess an independent legal will? Jurisprudence emphatically answers in the negative; the intervention of the machine is characterized according to the theory of "preprogrammed will", meaning that the administration has not disappeared from the scene but has frozen its will in the form of a programming code. This is what American researcher Lawrence Lessig expressed with his famous phrase: "Code is Law" (Lessig, 2006).

Building on this, the administrative official who sets the criteria and officially adopts the algorithm is considered the true issuer of the decision, and this frozen will is released upon the input of the citizen's data. This characterization is confirmed by French case law which qualifies the algorithmic decision as a "digital extension of administrative will" rather than an autonomous decision (Sauvé, 2018).

3. International Reference and Algerian Legislation

At the international level, the European General Data Protection Regulation (GDPR) of April 27, 2016 established the first reference framework for regulating automated decisions. Article 22 granted individuals the right not to be subject solely to a decision based on purely automated processing that produces legal effects (GDPR, 2016). The European Artificial Intelligence Act (Council, 2024) of June 13, 2024 strengthened this orientation with the categorization of automated administrative systems in the category of "high-risk systems," which requires strict obligations regarding transparency and human oversight.

At the Algerian level, Law No. 25-11 of July 24, 2025, amending and supplementing Law No. 18-07 on the Protection of Personal Data, established for the first time an explicit legal framework for automated decisions. Article 45 bis 1 stipulates that: "A decision affecting the legal status of a person cannot be made based solely on automated processing that requires an assessment of their behavior, unless the citizen is given the opportunity to submit their observations and activate human review." This provision constitutes a qualitative leap in Algerian legislation and is perfectly aligned with Article 22 of the European GDPR (GDPR, 2016).

II. The Reasoning Crisis in Light of the Black Box Phenomenon

The obligation of the administration to give reasons for its decisions is one of the most important procedural foundations that administrative jurisprudence has built to protect the legal status of individuals from abuse of power. Reasoning is "the written disclosure of the factual and legal bases that led the administration to take a measure affecting the rights or freedoms of the citizen" (آيت أوضية، بن ملاح, 2019). Doctrine and jurisprudence have elevated this obligation to the rank of general principles of law with constitutional value.

1. Procedural Divergence Between Simple Automation and Smart Systems

Sound legal analysis requires a precise distinction between two levels of technical intervention in administrative decision-making. At the level of classical automation, where the system relies on strict linear programming based on the rule "If...Then," the decision is transparent and can easily be reasoned automatically through the applicable legal text. This is what the French Ministry of Finance did by publishing the source code for income tax calculation, within the framework of the principle of algorithmic transparency enshrined in the 2016 Digital Republic Law (ENA-Etalab).

However, the doctrinal problem becomes acute when the administration moves to rely on expert systems and advanced artificial intelligence techniques. If an algorithm affiliated with a public service refuses to grant an investment license or excludes an economic operator from a public procurement process, the administration finds itself obligated to provide "algorithmic reasoning" that goes beyond merely citing texts to require a precise explanation of the nature of the data processed by the system, the criteria it relied upon, and the weighting assigned to each criterion.

To face this challenge, the French legislator has inserted in the Code of Relations between the Public and the Administration (CRPA) Article R.311-3-1-2 that obliges the administration to give four essential elements when issuing an automated decision: the degree and method of the contribution of the algorithmic processing to the decision; the data processed and their sources; the processing criteria and their weighting; the operations performed by the processing.

2. The Black Box Dilemma: The Heart of the Crisis

The major technical difficulty in reasoning about algorithmic decisions is a phenomenon called the "Black Box." This phenomenon is strongly reflected in systems based on deep learning algorithms and artificial neural networks. These programs are trained on huge volumes of data and autonomously construct artificial neural networks discovering hidden mathematical relationships to arrive at the result, without the need for the programmer's intervention at every step (Burrell, 2016).

This technical depth creates what is called "algorithmic autonomy," which makes tracing the precise logical pathway of the decision nearly impossible, to the point that software designers themselves are sometimes unable to explain how the machine weighted one decision over another. Jurist Frank Pasquale expressed this phenomenon in his famous work "The Black Box Society," describing it as threatening the establishment of "the rule of algorithms" as an alternative to the rule of law (Pasquale, 2015).

When public administration relies on these closed systems to evaluate individuals, it produces opaque administrative decisions. The absence of algorithmic transparency nullifies the reasoning requirement from its foundation and strips the citizen of their constitutional right to know the justifications that led to the infringement of their legal status. Added to this technical complexity is another legal barrier, namely the administration's occasional reliance on "protection of trade and industrial secrets" of private companies that developed those

algorithms, to refrain from disclosing source codes to citizens or to the judiciary.

3. The Most Prominent Judicial Embodiment: The Dutch SyRI Case

A prominent judicial expression of the black box dilemma in public administration is the landmark decision of the District Court of The Hague in the Netherlands, dated February 5, 2020, in the case NJCM et al. v. The Dutch State. By this ruling, the court halted the use of the "SyRI" system (System Risk Indication), an algorithmic system adopted by the Dutch government since 2014 to detect fraud in social welfare in poor neighborhoods in Rotterdam and Amsterdam (Haag, 2020).

The court found that this system breached Article 8 of the European Convention on Human Rights on the right to respect for private life, due to its lack of transparency and the impossibility for targeted individuals to know the indicators that the algorithm used to classify them as a "potential fraud risk." The court ruled that not knowing what "SyRI" does exactly compromises its ability to exercise its judicial functions, and violates the rights of people to question the system (Alston, 2020).

In a later context, the Dutch childcare benefits scandal (Toeslagenaffaire) revealed that 25,000 to 35,000 people were falsely accused of fraud by discriminatory algorithms, of which 94% were later proven wrongly accused, leading to the resignation of Mark Rutte's government in 2021 (International, 2021). This scandal is the most dramatic embodiment of the dangers of the black box in public administration.

4. The American Loomis Case: The Conservative Judicial Approach

By contrast, American jurisprudence has generated a more cautious approach in the case of *State of Wisconsin v. Eric Loomis*, issued by the Wisconsin Supreme Court on July 13, 2016. The court rejected the constitutional challenge brought by the defendant, who had been sentenced to six years in prison based partly on the results of the risk assessment from the "COMPAS" algorithm, developed by a private company (Loomis, State v., 2017).

However, the court surrounded this acceptance with five mandatory warnings in the pre-sentencing report, alerting the judge to the methodological limitations of the algorithm, especially that it relies on group statistics rather than a real individual assessment (Review, 2017). This ruling reveals the fragility of judicial review in the face of complex algorithms, especially when the source code is protected by trade secrets. This orientation was reinforced by the *Houston Federation of Teachers v. Houston ISD* case (2017), in which the Federal District Court held that reliance on a proprietary algorithm that does not allow teachers to verify the accuracy of results constitutes a clear violation of procedural due process guarantees.

Section Two: The Right to Explanation and the Adaptation of Judicial Review to Algorithmic Reality

Faced with the inadequacy of classical reasoning rules to accommodate the engineering of algorithms, contemporary legal doctrine has moved toward forging a new procedural concept represented in the "right to explanation" (I), which represents the natural evolution of the administration's obligation to provide reasons in the digital age. The digital environment also imposes a radical adaptation of judicial review over automated administrative acts (II).

I. Consecration of the Right to Explanation as an Emerging Procedural Guarantee

The right to explanation represents the fruit of a notable doctrinal and legislative evolution that seeks to achieve a balance between the requirements of technological efficiency

and the fundamental rights of the citizen. This right is defined as "the power held by every citizen subjected to automated processing that produced a legal effect against them, to compel the public service to provide a simplified and logical explanation, in understandable language, of the key criteria that determined the decision, independent of purely programming complexities" (Ribeiro, 2016).

1. The Transition from Transparency to Explainability

Contemporary doctrine indicates that the principle of "algorithmic transparency" in its traditional sense (i.e., publishing the source code) is no longer sufficient to protect citizens. Publishing source codes does not achieve the purpose of the procedural guarantee because these codes are written in a programming language that only specialists can decipher, in what doctrine has called the "paradox of algorithmic transparency" (France, 2024).

This paradox was embodied in the case of the French "Parcoursup" platform for university orientation. In its famous ruling of June 12, 2019 (University of the Antilles case, No. 427916), the French Council of State rejected the National Union of French Students (UNEF)'s request to access the source codes of the local algorithms used by universities to rank student files, thereby establishing an exception to the principle of algorithmic transparency on the pretext of "deliberative confidentiality." The French Constitutional Council confirmed this orientation in its Decision No. 2020-834 QPC of April 3, 2020 (Rozé, 2020).

Faced with this paradox, doctrine moved toward a deeper concept represented in "explainability", which means providing a simplified and understandable explanation to the person addressed by the decision regarding the logic that led to it. This orientation has produced an entire scientific field known as "Explainable AI (XAI)," which aims to provide technical tools that allow deciphering complex algorithms.

Among the most prominent of these technical tools is the "LIME" technique (Local Interpretable Model-agnostic Explanations), which approximates the complex model with a simple interpretable model around each individual decision, and the "SHAP" technique (SHapley Additive exPlanations), based on Shapley's cooperative game theory, which determines the weight of each variable in the decision-making process (Ribeiro, 2016). In 2024, the French National Institute for Informatics (INRIA) published a report that recommends the use of these techniques in public administrations and the development of platforms for automatic explanation generation integrated into administrative decision-making systems.

2. Legislative Consecration of the Right to Explanation

The European Artificial Intelligence Act (AI Act) of June 13, 2024 explicitly enshrined this right in Article 86, titled "Right to explanation of individual decision-making," granting every person affected by a decision issued by a high-risk smart system the right to obtain from the deployer clear and meaningful explanations regarding the role of the smart system in the decision-making process and the key elements of the decision taken (Council, 2024).

Similarly, the American document "Blueprint for an AI Bill of Rights," issued by the White House in October 2022, enshrined the "Notice and Explanation" principle, which requires operators of automated systems to provide an explanation in simple and understandable language about how the system affects the concerned individuals (The White House, 2022). This indicates an international consensus on the essence of this right, even if the legislative approaches differ, from the all-encompassing European to the more sectoral American.

This right is tacitly created by Law No. 25-11 of 2025, in relation to Algerian legislation. In addition to Article 41 bis, which provides for the appointment of a "data protection officer" (DPO) entrusted with ensuring transparency and compliance within the public service, Article

45 bis 1 provides for informing the citizen of the existence of algorithmic processing and giving him or her the opportunity to submit his or her observations. Even if the Algerian legislator does not explicitly mention the "right to explanation," these procedural guarantees constitute a legal expression of this right and open the way for its development by the Algerian administrative judge through jurisprudence (25-11, 2025).

3. The Principle of Technical Proportionality

The right to explanation imposes on the administration, before proceeding to integrate any smart system within its services, the obligation to test the explainability of the system. The use of highly complex "black box" algorithms is legally prohibited in the public service when it comes to fateful decisions affecting the acquired rights of citizens, and it is limited to simple guidance matters (2022، محمد).

This orientation is also supported by the report of the French National Pilot Committee for Digital Ethics (CNPEN) of 2022, which recommended the "principle of technical proportionality," i.e. that the administration should choose the simplest algorithm that achieves the objective, giving priority to interpretable models over higher-performance but less transparent models (CNPEN, 2022).

II. Adaptation of Judicial Review to Automated Administrative Decisions

The inability to reason algorithmic decisions reflects backwards on the effectiveness of the review exercised by the administrative judge. A judge steeped in rules and texts finds themselves confronting digital evidence and mathematical equations that exceed their technical understanding, which undermines their authority to examine the proportionality between the facts (inputs) and the decisions taken (outputs). French doctrine has termed this cognitive gap "the technical weakness of the judge" (Cassia, 2019), a phenomenon that calls for developing the cognitive infrastructure of the administrative judiciary itself.

1. Shifting the Technical Burden of Proof to the Administration

Classical administrative litigation traditionally features inequality between its two parties: an administration that possesses authority privileges and presumptions, and a weak citizen required to provide evidence. This problem widens dramatically in contemporary digital litigation; the administration monopolizes databases, operating servers, and central records, while the citizen stands defenseless and technically incapable of proving the precise algorithmic error. French doctrine has termed this situation "digital asymmetry" between the administration and the citizen (Garapon & Lassègue, 2018, p. 167).

To restore balance to this unequal litigation, the administrative judge must move toward a procedural revolution represented in shifting the burden of proof. The citizen is not required to prove the complex technical defect of the administration's software; rather, it suffices to present serious and substantiated presumptions of the existence of harm or abuse, so that the burden of proof shifts entirely and directly to the administration, which is legally required to provide the opposing digital evidence.

The Court of Justice of the European Union enshrined this orientation in the "SCHUFA" case (C-634/21) issued on December 7, 2023, by requiring companies producing algorithms to provide "useful information about the essential logic of the automated decision," and to specify the methodology and criteria they adopted, so that the concerned person can exercise their legal rights. The same court went further in the "Ligue des droits humains" case (C-817/19) of 2022, holding that the absence of algorithmic transparency constitutes a violation of the fundamental principles of the European Union and entails the nullity of the decision taken.

2. Extension of Review to Cover Algorithmic Bias

Modern judicial review rises from merely investigating the material existence of reasoning to examining the legality of the engineering of the algorithm itself and the integrity of the databases used to train it. The smart system might be mathematically sound and free of programming errors but it may have formed its assessment based on biased historical data or rules that breach the constitutional principles, in what is called "Algorithmic Bias" (Wachter, S., Mittelstadt, B., & Russell, C, 2021).

The algorithm used by the French National Fund for Family Allowances (CNAF), revealed in 2023 by the French association "La Quadrature du Net," is perhaps the most prominent real-world application of this problem at the European level. The algorithm analyzes personal data of more than 32 million people per month and creates a "suspicion score" for each citizen, which defines the probability of being subjected to an administrative review (Net, 2023).

Analysis of the source code of the algorithm showed that several adopted criteria have directly discriminatory character, including: low income, obtaining "disabled adult allowance," unemployment, divorce within the last twelve months. The data automatically gives high suspicion scores to single-parent families (82% single mothers), which is indirect discrimination based on gender and social or disability status (Council, 2024). These revelations prompted a coalition of fifteen organizations to appeal to the French Council of State on October 15, 2024, to suspend this algorithm.

3. Technical Judicial Expertise in Algerian Law

In the Algerian legal context, the administrative judge finds their support in activating judicial expertise in Articles 125 through 145 of the Civil and Administrative Procedure Code (08-09, 2018), which grant them the authority to retain one or more experts to verify technical material facts. The latest amendment by Law 22-13 further improved the possibility of using electronic means in the expertise procedures, which corresponds with the nature of algorithmic disputes that require a precise programming examination.

It should be noted in this context that the Algerian National Authority for the Protection of Personal Data (ANPDP), created by Presidential Decree No. 22-187 of May 18, 2022, has regulatory and investigative powers in this field by virtue of Law 25-11, including the ability to conduct surprise investigations and audits on the algorithmic systems of public services. The attribution of this authority with "regional poles" (Article 27 bis) also guarantees the decentralization of the oversight and its proximity to the administrative courts distributed over the national territory (2022 '187-22).

However, the Algerian administrative judiciary has not yet issued explicit case law on this emerging matter, which requires qualifying specialized judicial competencies and including artificial intelligence courses in the training programs of judges at the Higher School of Magistracy. The international standard ISO/IEC 42001:2023 on the management of artificial intelligence systems constitutes a technical reference on which the administrative judge and experts can rely to assess the compliance of the algorithmic system with adopted international standards .

CONCLUSION

This study has demonstrated that the algorithmic administrative decision represents a natural outcome of the digital revolution that has reshaped the structure of public services, and that its legal nature does not represent a complete rupture with the classical administrative decision, but rather an extension of it in terms of purpose and effect, and a fundamental

difference in terms of means and creation mechanism. The study has also shown that the "Black Box" phenomenon constitutes the greatest legal challenge facing this emerging category of decisions, as it undermines the reasoning requirement and strips the citizen of their constitutional right to know the reasons that led to the infringement of their legal status.

The comparative analysis of European and American case law has demonstrated that the international trend is slowly moving towards the enshrining of the "right to explanation" as a new procedural guarantee, as the natural evolution of the administration's duty to give reasons in the digital age. This trend has been codified in strict legislative texts, such as the European Artificial Intelligence Act of 2024 and the General Data Protection Regulation of 2016, showing international coherence in the response to the challenges posed by administrative automation.

The study shows that at the national level, Algerian Law No. 25-11 of July 24, 2025 has constituted a qualitative leap in the regulation of automated decisions, as it expressly prohibited the issuance of individual administrative decisions based on purely automated profiling, and imposed strict procedural guarantees including the appointment of a data protection officer and the conduct of a processing impact assessment. However, the effective application of these texts remains contingent upon qualifying the Algerian administrative judiciary to exercise effective oversight over public algorithms.

Recommendations

In light of the conclusions reached, the study proposes a set of recommendations addressed to the various stakeholders in the Algerian legal system:

First: Calling on the Algerian legislator to enact a special law regulating the use of artificial intelligence in the public sector, which includes a classification of risk levels similar to what is contained in the European Artificial Intelligence Regulation, and which expressly enshrines the "right to explanation" as a procedural guarantee.

Second: Amending the Civil and Administrative Procedure Code to require the administration to provide understandable and human-readable reasoning for every decision issued by an automated system, with the inclusion of special rules for shifting the technical burden of proof to the administration in digital disputes.

Third: Requiring public administrations to conduct a "Data Protection Impact Assessment" (DPIA) before integrating any smart system, and publishing the results of these assessments to ensure prior transparency, while activating the role of the data protection officer (DPO).

Fourth: Technically qualifying the Algerian administrative judiciary by including artificial intelligence courses in the curricula of the Higher School of Magistracy, and establishing specialized expertise bodies in algorithmic auditing attached to administrative courts.

Fifth: Enhancing the powers of the National Authority for the Protection of Personal Data (ANPDP) and supporting its regional poles with sufficient material and human means to exercise its field oversight over public service algorithms.

In conclusion, protecting the Algerian citizen from the risks of automated decisions does not require rejecting the digital transformation, but rather legally regulating it to ensure that the machine is subject to the rule of law and the centrality of the human element in fateful decisions. There remains an urgent need for founding administrative judicial case law in this field that will draw the general lines of review over algorithmic decisions in the Algerian legal

context, and pave the way for further in-depth legal studies on the ethical and procedural dimensions of using artificial intelligence in public service.

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