The Contentious Issues of Governance by Algorithms

GILLES J. GUGLIELMI*

The development of computerized tools that lead to decision-making processes which apply locally defined parameters poses many questions about democracy. These questions stem from our very conception of the state and its role, going beyond the boundaries of typical administrative law. According to a popular notion that permeates the practices of most executive branches in liberal political regimes, democratic concerns are now competing with managerial concerns.

In order to analyze this idea, we must study the implementation of algorithms in administrative decision-making, underscoring both the changes to the characterization of administrative decisions and the questions raised about an administrative judicial review of litigation.

To summarize a French administrative law judge's review so far, the judge began by assessing the legality of using algorithms in administrative procedures. Secondly, the judge reviewed the legality of making administrative decisions on the basis of an algorithm.

Three issues now appear to be guiding the future of algorithm-based administrative decisions: (1) the security of legal transactions; (2) the compensation for harm or damage caused by the algorithms, and (3) the degree of in-depth review by the administrative judge.

Indiana Journal of Global Legal Studies Vol. 30 #1 (Winter 2023)

INTRODUCTION

To confine ourselves to the most general administrative definition, an algorithm constitutes "the study of problem-solving by implementing series of elementary operations according to a predefined process culminating in a solution."[1]

The dematerialization of administrative procedures must precede the implementation of algorithms, both to obtain quantities of data, personal data in particular, held by users and render that data meaningful. This will also allow for the products and services supplied to users to be developed in a personalized manner. Nonetheless, the necessary aim regarding the strategic enhancement of such data was the development of algorithms in administrative circles.

Algorithms have gradually been introduced into administrative processes to get rid of repetitive tasks, detect correlations, identify risks, systematize internal control, help decision-making, and produce decisions that create rights. Thus, cases have emerged of algorithms used openly prior to a tax or social security assessment, offering an amount of compensation, assigning school-leavers to universities, or applicants to social housing.[2]

The development of computerized tools that lead to decision-making processes with locally defined parameters poses many questions about democracy that stem from our very conception of the state and its role,[3] thereby going beyond the boundaries of administrative law. According to a logic that henceforth permeates the practices of most executive branches in liberal political regimes, democratic concerns are now competing with managerial concerns.

---

* Gilles J. Guglielmi is a full-time professor at the University of Paris-Panthéon-Assas

1. Arrêté 0216 du 27 juillet 1989 relatif à l'enrichissement du vocabulaire de l'informatique [Order of July 27, 1989 Relating to the Enrichment of Computer Vocabulary], Journal offciel de la République Française [J.O] [Official Gazette of France], June 27, 1989, p 11725. (Fr.)

2. *See generally* Danièle Bourcier & Primavera de Filippi, *Les algorithmes sont ils devenus le langage ordinaire de l'administration?*, *in* LECTURES CRITIQUES DU CODE DES RELATIONS ENTRE LE PUBLIC ET L'ADMINISTRATION 193, 200-01 (Geneviève Koubi et al. eds., 1st ed. 2018) (discussing the use of algorithms in university assignments) (Fr.); Ivar Timmer & Rachel Rietveld, *Rule-Based Systems for Decision Support and Decision-Making in Dutch Legal Practice: A Brief Overview of Applications and Implications*, 103 DROIT ET SOCIÉTÉ 517 (2019), https://www.cairn.info/revue-droit-et-societe-2019-3-page-517.htm (discussing the use of algorithms in tax and social security assessments) (Fr.).

3. *See generally* Arnaud Sée, *La régulation des algorithmes: un nouveau modèle de globalisation?*, 5 REVUE FRANÇAISE DE DROIT ADMINISTRATIF [R.F.D.A.] 830 (2019), https://halshs.archives-ouvertes.fr/halshs-02450617/document.

I. FROM DEMOCRATIC CONCERNS TO MANAGERIAL CONCERNS

The computational power of algorithms can be a formidable aid to the decision-making power vested in executive and administrative authorities.[4] On the one hand, the power of algorithms increases the asymmetrical (or inegalitarian) nature of administrative law and its litigation processes, as individuals are truly on their own in the face of a machine whose means far outweigh the individual's means. On the other hand, it impinges on an ethical conception of administrative decisions, which results from a humanistic free will applied to a personalized—and thus unique—situation of its recipient.

The history of the review of administrative action shows that the main concern of administrative judges and legal theory was to make administrative decisions subject to the law for roughly a century, from the Council of State's 1860 procedural regulation to just after the Second World War.

Then, at a subsequent stage corresponding to the rapidly expanding adversarial principle (due hearing of both parties), then the right to a fair trial[5] from the Trompier Gravier ruling (1944) to the Didier ruling (1999),[6] administrative law and its litigation processes favoured a primarily procedural conception. This trend mirrored the global trend of defining globalized administrative law through transparency, participation, motivation of decisions, accountability, right to appeal, and some review standards, such as proportionality, matching the means to the end, the nonuse of needlessly restrictive means, and legitimate expectations.

Finally, in a third phase, which is particularly perceptible in France since the implementation of various public policies for reforming the state and public services from 1995 onwards, administrative decisions have been gradually guided by the notion of quality. This notion stems from company organization sciences and is based on the match between outcomes and objectives, the cut in operating costs, or the satisfaction of users. Administrative decisions are thus taking a primarily managerial turn, one in which due observance of substantive law and its

---

4. *See generally* Sonia Desmoulin-Canselier & Daniel Le Métayer, DÉCIDER AVEC LES ALGORITHMES: QUELLE PLACE POUR L'HOMME, QUELLE PLACE POUR LE DROIT?, Dalloz, coll. "*Les sens du droit*" (2020) (Fr.).

5. *See generally* Scarlett-May Ferrié, *Les algorithmes à l'épreuve du droit au procès équitable*, LA SEMAINE JURIDIQUE – EDITION GÉNÉRALE 1 (2018) (questioning compatibility of algorithms and right to a fair trial) (Fr.).

6. *See* CE Sect., May 5, 1944, Rec. Lebon 133, 256; CE Ass., Dec 3, 1999, 207434, Rec. Lebon 399; REVUE FRANÇAISE DE DROIT ADMINISTRATIVE {FRENCH ADMINISTRATIVE LAW JOURNAL] [RFDA] 2000, 584, concl. Seban; AJDA, 2000, 126, chron. M. Guyomar & P. Collin.

fundamental justification takes second place to due observance of the procedure, which is to act as a safety umbrella, mollify the satisfaction of users, and meet the quantitative criteria of accounting efficiency. The managerial concern of administrative decisions is, for that matter, akin to that of the administrative jurisdiction that is supposed to review it. The latter has indeed already initiated the trial movement toward algorithms,[7] but this very specific question is not dealt with here.

II. THE KEY AREAS UNDER REVIEW

We must study the implementation of administrative decision algorithms, underscoring both the modifications they induce in the representation of an administrative decision,[8] and the questions they raise in an administrative judge's review of litigation.

For that purpose, there is no need to think in-depth about the notion of artificial intelligence (AI), the scope of which is both too broad and inconsequential to reasonably compare specific and specialized analytical tools. According to the experts, current AI applications are the product of weak AI.[9] AI processes are based on algorithms, lists of instructions, and rules that bring out decisions, either directly or with the aid of probabilities. Thus, it now suffices to focus materially on algorithms to set out the terms of a judge's review problem, including the focus on protecting human rights.[10] The task is facilitated, as it were, because, unlike certain fantasies, there is no paradigm shift.

The current, widespread trend consists in promoting professional ethics. Ethics and prevention tend to divert our attention from the real difficulties the theory of law encounters in comprehending the

---

7. *See generally* Marc Clément, *Algorithmes au service du juge administratif: peut-on en rester maître?*, A.J.D.A. 2453 (2017), https://www.dalloz.fr/lien?famille=revues&dochype=AJDA%2FCHRON%2F2017%2F3339 (discussing current algorithm use in French databases and American sentencing and planned algorithm use in British online courts) (Fr.).

8. *See generally* Ackiel Boudinar-Zabaleta, La décision administrative algorithmique, 5 La revue droit pub. approfondi 7, 8 (2017), https://en.calameo.com/read/0045851905e6d ec0abb2b (Fr.).

9. *See generally* Axel Cypel, AU CŒUR DE L'INTELLIGENCE ARTIFICIELLE: DES ALGORITHMES À L'IA FORTE (1st ed. 2020) (Fr.) (We speak of strong AI when this discipline gives the machine a mind of its own, and beyond self-learning, instils in it a form of consciousness.).

10. *See generally* COMMISSION NATIONALE CONSULTATIVE DES DROITS DE L'HOMME, OPINION ON THE IMPACT OF ARTIFICIAL INTELLIGENCE ON FUNDAMENTAL RIGHTS (A-2022-6), at 12–13 (2022), https://www.cncdh.fr/sites/default/files/2022-05/A%20%202022%20%206%20%20%20EN%20%20Artificial%20intelligence%20and%20fundamental%20rights%2C%20april%202022.pdf (the C.N.C.D.H. is the French National Consultative Commission on Human Rights).

modifications that algorithms make to administrative decisions. This idea is borne out by the ethical principles of fairness, confidence, and vigilance, which should encompass concepts whose exact legal nature is already uncertain, like human dignity or privacy, as underlined by both the French data protection authority (CNIL)[11] and legal theory.[12] The resulting self-regulation undeniably strengthens a beneficial preventive effect already found in law (Article 121 of the French data protection law [*loi informatique et libertés*]).[13] This self-regulation also follows the recent recommendation of the French National Consultative Commission on Human Rights (CNCDH) to carry out an impact assessment to introduce algorithms in the administrative decision-making process. However, like any type of "compliance" devised for private sector players, it appears to disregard the fact that, for administrative authorities, these obligations are included in their observance of the rule of law. As compliance is not primarily based on law, it cannot be the sole nor the best review mode.[14]

Accordingly, in terms of the law, the new problems that arise are of the same nature as these problems in the past.[15] This is because the question of responsibility and its apportionment is still posed: whether the decision is made by a machine or whether the machine decision is supported by the named person having authority. Whether the decision is made by a machine or a delegation, the question of the legality of the decision arises.[16] In either case, it is the outcome of the process, a legal instrument or a fact having a legal effect, that the legal system applies.

---

11. *See generally* COMMISSION NATIONALE DE L'INFORMATIQUE ET DES LIBERTES, COMMENT PERMETTRE A L'HOMME DE GARDER LA MAIN? LES ENJEUX ETHIQUES DES ALGORITHMES ET DE L'INTELLIGENCE ARTIFICIELLE [HOW TO ENABLE HUMANS TO STAY IN CONTROL? THE ETHICAL ISSUES OF ALGORITHM AND ARTIFICIAL INTELLIGENCE] (2017), https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf (reporting the public debate as part of its ethical reflection remit granted by the Law for a Digital Republic).

12. *See generally* Fanny Grabias, *La transparence administrative, un nouveau principe?* [*Administrative Transparency, a New Principle?*], 50 JCP A 2340 (2018) (Fr.).

13. *See* Loi 78–17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés [Relating to Data, Processing, Files and Freedon], JOURNAL OFFICIEL DE LF RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], Jan. 7, 1978, p. 227.

14. *See generally* David Forest, *La régulation des algorithmes, entre éthique et droit* [*The Regulation of Algorithms, Between Ethics and Law]*, 137 LAMY DROIT DE L'IMMATÉRIEL 38 (2017) (Fr.).

15. *See generally* Primavera de Filippi, *Repenser le droit à l'ère numérique : entre la régulation technique et la gouvernance algorithmique* [*Rethinking the Law in the Digital Age: Between Technical Regulation and Algorithmic Governance*], 3 DROIT ET MACHINE 33 (2017) (Fr.).

16. *See generally* Jean-Baptiste Duclercq, *L'automatisation algorithmique des décisions administratives individuelles* [*The Algorithmic Automation of Individual Administrative Decisions*], 2019 RDP 295 (Fr.).

In either case, there is tension between the law and technology, between legal IT and IT law.

III. THE CONTENT OF THE REVIEW

To sum up the review conducted by a French administrative judge to date, the judge first assessed the legality of using algorithms in the administrative procedure. Second, the judge reviewed the legality of administrative decisions made on the basis of an algorithm.

For the procedure, the key points of the review are the transparency and intelligibility of the use of algorithms. This is because the procedure is indeed the point at which individuals become aware of how their applications or claims are dealt with, and it was also through the procedure that the French lawmaker began to regulate the use of algorithms.[17]

An additional point is the review of the algorithm itself, which proves to be a more delicate task. The transparency of the use of algorithms and an understanding of their scope in no way implies the transparency of the algorithm itself. Private sector operators have always refused to disclose their source code and other items protected in their view by patents or trade secrets. Furthermore, the algorithm is merely the form of data processing. So, the challenged act, the basis for the processing, must also include an authorization to implement the algorithm after it has been developed. Lastly, the algorithm, as an automated process that directs behaviour and leads to internal optimization standards for case-review criteria, could be governed by soft law as "guidelines."

For the review of a final administrative decision made on the basis of an algorithm, it is based first and foremost on the legal fiction that regards the competent administrative authority as the author of the administrative act enacted on the basis of an algorithm. The fact is that the administrative authority is not technically the author of the algorithm itself. In most cases, the administrative authority engages

17. *See* Loi 2016–1321 du 7 octobre 2016 pour une République numérique [Law 2016-1321 of October 7, 2016 for a Digital Republic], JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], Oct. 7, 2016 (Fr.) (creating Code des relations entre le public et l'administration [Code of Relations between the Public and the Administration] Article L311-3-1); *see* Décret 2017-330 du 14 mars 2017 relatif aux droits des personnes faisant l'objet de décisions individuelles prises sur le fondement d'un traitement algorithmique [Decree 2017-330 of March 14, 2017 relating to the rights of persons subject to individual decisions made on the basis of algorithmic processing], JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], March 14, 2017 (Fr.) (creating Code des relations entre le public et l'administration [Code of Relations between the Public and the Administration] Article R311-3-1-2).

private sector operators to develop and supply such software under contractual terms that may allow the company supplying the algorithm to retain its intellectual property rights. In this sequence of operations, the question then arises of whether the final administrative decision really results from the will of its author.

The legal basis for a decision was also examined and revealed a hidden standard-setting level that results from a multitude of implicit microstandards. These microstandards simply supplement the legal requirements, because constituting a category of IT experts for the decision produces its own interpretation of concepts that thereby changes from legal language to natural language to computing language. The existence and legality of administrative decisions produced by an algorithm are thus not under threat, but it goes without saying that the administrative authority must then assume responsibility for its decisions if the use of the algorithms leads to inegalitarian, inappropriate, detrimental, or unlawful decisions.

CONCLUSION

Algorithms can thus be presented as part of a set of standards or as part of another approach that belongs to the category of soft law. In either case, their submission to the rule of law is not in doubt, but the practical arrangements for circumscribing them and analysing the judicial route to reach them are subtle and have yet to be mapped out.

And yet, this point is crucial because the use of algorithms by administrative authorities, in both service and review activities, can only intensify in the "public transformation," in two main ways. First, algorithms seem to be the most appealing digital tool for public administrators in crisis situations.[18] Second, algorithms integrate themselves into daily and repeated contact between individuals and administrative authorities.[19] Irrespective of the increasing complexity and density of standards that result from tools restricting access, freedom, and potential infringements of fundamental rights produced by total control of bodies and behaviours (as in social scoring or widespread

18. *See generally* Véronique Guillotin et al., RAPPORT D'INFORMATION FAIT AU NOM DE LA DÉLÉGATION SÉNATORIALE À LA PROSPECTIVE (1) SUR LES CRISES SANITAIRES ET OUTILS NUMÉRIQUES : RÉPONDRE AVEC EFFICACITÉ POUR RETROUVER NOS LIBERTÉS [INFORMATION REPORT MADE ON BEHALF OF THE SENATORIAL DELEGATION FOR FORESIGHT (1) ON HEALTH CRISES AND DIGITAL TOOLS: RESPONDING EFFECTIVELY TO REGAIN OUR FREEDOMS], S. REP. NO. 673 (2021), https://www.senat.fr/rap/r20-673/r20-6731.pdf (discussing algorithm use during times of crisis in Asian and European countries) (Fr.).

19. *See generally* Boris Barraud, *L'algorithmisation de l'administration* [Algorithmization of Administration], 150 REVUE *LAMY DROIT DE L'IMMATÉRIEL*, 42 (2018)(Fr.).

biometric recognition in public spaces), the software or communication tools used led public corporations to use almost exclusively private sector operators for most of such activities. Relations with individuals are thus heavily weighed in favour of the administrative authorities, which control and impose increasingly restrictive and intrusive procedures, going as far as favouring arbitrariness through perfectly prepared decisions that preclude any human adaptation.

Three issues now appear to be guiding the future of administrative decisions when they rely on algorithms. The first issue pertains to the security of legal transactions, which requires digital tools to be reliable enough to be the foundation for foreseeable decision without eroding the confidence citizens have in public authorities. The second issue centers around creating a compensation system, shaped by judicial review and appropriate principles, for any harm or damage caused by the algorithms. The final issue, which presents a problematic question at this stage, concerns the degree of in-depth review completed by an administrative judge who traditionally resists examining expert consideration. At the same time, through preventative ethics, a regulating program is developing that would give administrative law the ability to regulate all of the powerful executive branch's administrative activity—a guarantee of the effectiveness of democracy.