

# More on Algorithms and Public Administration\*

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***The recourse to the algorithm within the administrative procedure can never involve a lowering of the level of procedural safeguards and, in particular, of the requirement to state reasons for the measure pursuant to Article 3 of Law 241 of 1990, which, on the contrary, in these cases appears reinforced.***

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**ABSTRACT** This paper analyses a recent judgement of the Campania Regional Administrative Court on algorithmic administration. The topic confirms its enduring relevance in the debate and returns to the relationship between discretion and binding nature in automated procedures. Moreover, the decision focuses on the principles necessary for a correct exercise of algorithmic administration, specifically the principle of knowability and non-exclusivity of the automated decision. Finally, the paper proposes a critical reading of the new Article 30 of the Public-Contracts Code, which is the first rule in the Italian framework that expressly allows the use of artificial-intelligence instruments.

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## 1. Background, ruling and matters involved

The T.A.R. Campania, with ruling no. 7003 of 2022,<sup>1</sup> returns once again to the issue of administration by algorithms, thus confirming its continuing relevance within the scientific debate.<sup>2</sup> Such issue concerns the allocation of a monetary indemnity for farms located in certain territories of Campania, intended for entrepreneurs to compensate for the additional costs and loss of income due to the location of agricultural land. Specifically, the Court calculated this indemnity based on two parameters (the altitude and the slope of the land), and Article 6 of the notices implementing those compensatory measures fully regulated the calculation procedure the algorithm used to calculate the measure. Having regard to an initial determination of the allowance, carried out with the algorithmic formula provided for in the notice, AGEA later deemed necessary to review the artificial-intelligence system based on the indications of the European Commission and, therefore,

modified (in peius) the indemnities to correspond to farmers.

Basically, the administration introduced a different algorithm from the one set out in the call for tender, which led to a measure challenged by the applicant and declared unlawful by the administrative court for various procedural violations. First of all, the measure was unlawful because the administration did not indicate which new algorithm it had used, nor how it worked.

Moreover, the Campania Regional Administrative Court considered that the “recalculation” measure did not consider the guarantees of participation, that the decision had been adopted in breach of the call for tenders and, finally, that the new measures amounted to a revocation of the same, although there were no grounds to file an appeal pursuant to Article 21-quinquies.

The sequence of events allows the administrative judge to dwell once again on some of the principles underlying the proper use of computer algorithms and artificial-intelligence tools by public administrations. Indeed, the attention of the Campania Regional Administrative Court focuses on the centrality of the knowability principle of the algorithmic mechanism and on the principle of non-exclusivity of the automated decision (the so-called human in the loop).

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<sup>1</sup> For a first comment on the judgement, see M. Sforna, *Le garanzie di conoscibilità degli algoritmi e l'esigenza di assicurare un controllo umano del procedimento amministrativo (c.d. human in the loop). Nota a Tar Campania, Sez. III, 14 novembre 2022, n. 7003*, in [www.giustizia-insieme.it](http://www.giustizia-insieme.it).

<sup>2</sup> The topic is investigated in a recent monographic volume by L. Torchia, *Lo Stato digitale*, Bologna, Il Mulino, 2023.

## 2. *The algorithms' extent in administrative proceedings: a move backwards towards 'low discretion'*

The decision mentioned above seems to take a slight step backwards with respect to the previous caselaw orientation on the scope of application of algorithms in administrative proceedings. Indeed, it is known that in judgments no. 8472 of 2019 and no. 881 of 2020, the Council of State extended the use of IT tools to all proceedings, both discretionary and otherwise (i.e., bound), through a balancing act that gave greater value to the 'advantages' underlying the use of algorithms.<sup>3</sup>

The idea that only so-called 'serial' procedures - i.e. bound procedures - could be automated was dismissed and, in contrast, an efficientist interpretation was stressed. Nevertheless, the Council of State's extensive interpretation of the two judgements caused several worries, especially regarding whether the machine can provide the same procedural guarantees that the 'human officer can provide through his/her balancing of interests.'<sup>4</sup> Such an interpretation, for instance, makes democratic participation in fully automated procedures extremely complicated, since it would be complicated for the citizen to actually know the logic behind the machine and, therefore, to intervene in proactive or defensive terms.

The case law approach briefly referred to, again regarding the scope of the application of algorithms in administrative proceedings, is partially refuted by the ruling in comment, according to which recourse to algorithms - even in a partially decisional function - would be valid in serial proceedings, or in those characterised by "low discretion". The T.A.R. Campania's approach is certainly surprising because the previous position of the Council of State, besides appearing extremely solid, was more in line with the progressive evolution of new technologies;<sup>5</sup> however, the considerations expressed by the administrative judge are anything but innovative, since the

admissibility of IT tools in proceedings with a low rate of discretion had already been discussed in the past.<sup>6</sup> In a nutshell, scholars' guidelines aimed to extend the automation of decision-making processes characterised by low discretionary power. Such approach moved from the need to temper the rigid assertions according to which entrusting the exercise of discretionary power to a computer could determine "a sort of ossification of administrative action" and lead to "a deindividualisation of the decision".<sup>7</sup> On the other hand, the administrative judge's decision deals with the subject in a different way, disregarding the perspective of administrative power and decision, but rather focusing on that of the citizen. Accordingly, the Campania Regional Administrative Court goes beyond the Council of State's approach and imposes a limit that public administrations cannot exceed, i.e. the "low discretion": the latter, constitutes the 'maximum admissible' in terms of guarantees, since the automation of decision-making processes "can never entail a lowering of the level of protection guaranteed by the law on administrative procedure, and in particular those on the identification of the person responsible for the procedure, on the obligation to state reasons, on the guarantees of participation, and on the so-called 'non-exclusivity' of algorithmic decisions".

## 3. *The algorithmic judge's lawfulness: the knowability principle*

Having specified the applicative scope of algorithmic administration, the judgement of the Campania Regional Administrative Court clarifies the hard core of principles underlying the use of IT tools by public administrations. First, public administrations are necessarily bound to comply with the principle of transparency of the automated decision. The latter, on deeper inspection, must be

<sup>3</sup> The commentaries on the judgements are several: above all, see A.G. Orofino and G. Gallone, *L'intelligenza artificiale al servizio delle funzioni amministrative: profili problematici e spunti di riflessione*, in *Giurisprudenza italiana*, 2020, 1738 ff.

<sup>4</sup> A. Di Martino, *Tecnica e potere nell'amministrazione per algoritmi*, Naples. Editoriale Scientifica, 2023.

<sup>5</sup> L. Previti, *La decisione amministrativa robotica*, Naples, Editoriale Scientifica, 2022, 192.

<sup>6</sup> A. Masucci, *L'atto amministrativo informatico*, Naples, Jovene, 1993; M. Natoli, *L'attività informatizzata della pubblica amministrazione*, in *Rivista amministrativa*, 2003, 960; recently, I.M. Delgado, *Automazione, intelligenza artificiale e pubblica amministrazione: vecchie categorie concettuali per nuovi problemi?*, in *Le istituzioni del federalismo*, 2019, 647; B. Marchetti, *La garanzia dello "human in the loop" alla prova della decisione amministrativa algoritmica*, in *BioLaw Journal*, 2021, 367 ff.

<sup>7</sup> See A. Contaldo and L. Marotta, *L'informatizzazione dell'atto amministrativo: cenni sulle problematiche in campo*, in *Il diritto dell'informazione e dell'informatica*, 2002, 571 ff.

understood in its four declinations of knowability, full knowledge, comprehension and control.<sup>8</sup> From the citizen's perspective, it is not enough to ensure the possibility of accessing the source code,<sup>9</sup> but it is necessary to guarantee the comprehension of all the technical steps that lead to that particular algorithmic decision. Setting this matter in the perspective of citizens' rights implies, on the other hand, a stronger duty to motivate on the part of the public administrations. The latter are obliged to translate the technical rule into a legal rule, in order to allow the addressees of the measure to grasp any illegitimacy profiles and, if necessary, to take legal action against the automated measure.<sup>10</sup>

The guarantee of the knowability of the algorithm, as it is well known, binds administrations not only through Article 1(1) of Law No. 241 of 1990, but also through Article 41 of the Charter of Fundamental Rights of the European Union. The latter states that when the public administration intends to adopt a decision that may have adverse effects on a person, it is obliged to hear the person before acting, to allow him/her access to its archives and documents, and to give reasons for its decisions. The assertions of scholarship and caselaw on the need to guarantee transparency in the decision-making process, even when automated, are undermined first and foremost by the technical complexity underlying the algorithm. For this reason, the issue does not only concern legal and procedural aspects, but (as the ruling of the Campania Regional Administrative Court confirms) also the technical, statistical, and engineering profiles of knowledge of the machine.

Another relevant aspect from the perspective of ensuring algorithm knowability is that of the type of computer tool used by the public administration. Indeed, it is very important to understand whether public administrations resort to deterministic

algorithms, or whether they rely on artificial-intelligence tools (*machine learning*). In the case under comment, the calculation for the determination of the indemnity was performed by a deterministic algorithm; therefore, for its knowability, attention must be shifted to the construction of the algorithm and, above all, to the identification of the *inputs*, since the latter establish the moment in which the discretionary choice comes into play. However, scholarship pointed out that whenever public administrations resort to artificial-intelligence tools, it would be extremely complex to guarantee full and effective knowability of the decision-making process, since, very often, not even the programmers of the algorithm can understand the outcomes of the fully automated decision-making process.

### 3.1. *The principle of non-exclusivity of automated decision-making*

The judgement in comment addresses another extremely relevant aspect from the perspective of the legitimacy of automated decisions, namely the well-known principle of 'non-exclusivity of the algorithmic decision'. This is a rule confirming the 'instrumental', and not exclusively decisional, nature of algorithms and artificial intelligence tools for public administrations. From the citizen's perspective, 'algorithmic non-discrimination' takes the guise of a right in the strict sense, namely to not deciding solely by virtue of the automated process. On the other hand, on the administrative side, it implies the obligation for the person in charge of the procedure to check (validating or denying) the algorithmic decision.

The issue of (administrative, social and judicial) control of algorithmic decision-making is extremely complex and cannot be addressed in depth herein. However, it is an aspect that points to numerous limitations, both in terms of legitimacy and liability.

The limits on administrative and social control over automated administrative decisions clearly open a further and consubstantial problematic aspect, which concerns the identification of liability profiles of the public administration whenever it relies on an algorithm or an artificial-intelligence system to conduct administrative procedures.

In order to analyze the link between the effectiveness of the control power and the accountability of public administrations, it is

<sup>8</sup> According to the well-known reconstruction by G. Arena, *Trasparenza amministrativa*, in S. Cassese (ed.), *Dizionario di diritto amministrativo*, Milan, Giuffrè, 2006, 5945 ff.

<sup>9</sup> On this topic, see A.G. Orofino, *La trasparenza oltre la crisi*, Bari, Cacucci, 2020.

<sup>10</sup> Recently, scholarship has argued that it would be possible to make up for the procedural-participation deficit caused by the difficulty for citizens to intervene proactively or defensively in the automated procedure. In this sense, G. Gallone, *Riserva di umanità e funzioni amministrative*, Padua, Cedam, 2023.

necessary to retrieve the approaches of judgments n. 8479 of 2019 and n. 881 of 2020. Shortly after admitting the use of such IT tools in discretionary proceedings, the judgements take note of the problematic aspect relating to the imputation of the results of the administrative measure, stating that “in order to apply the general and traditional rules on imputability and liability, it is necessary to ensure that the final decision is referable to the authority and body competent under the law attributing the power”.<sup>11</sup>

The administrative judge’s referral is functional to recall the well-known principle of organic immedesimation,<sup>12</sup> a criterion of imputation of the (traditional) administrative act, which allows the acts and their effects as well as, more generally, the activity of its organs to be attributed directly to the legal person.

Before understanding whether it is possible to peg (bind) the administration by algorithms to a liability model compatible with those provided by the legal system, it seems necessary to understand whether public authorities, if they resort to the use of such pervasive computer tools, exercise a power to use it or not. In case of algorithms’ deterministic use, *i.e.*, if a procedure is automated that is constrained insofar as it is hetero directed by law, it is a fairly well-established view that the public administration does not exercise power in the substantive sense. The unique valid perspective in the sense of a responsible administration in this sphere might seem to be whereby the power exercised by public offices would be found in the very choice of resorting to an automated procedure and, moreover, in the processes of ‘educating’ the algorithm.

On the other hand, organisational structures can also use self-learning algorithms, in which human input is completely *bypassed* even in the algorithm pre-determination phase. However, not even in this circumstance could it be said that power is concretely exercised, since the balancing-interest analysis is replaced by machine activity, making the figure of the person in charge of the procedure

effectively obsolete.<sup>13</sup>

In proceedings conducted on the basis of a self-learning algorithm, not only would it not be possible to grasp that role that the legal system attributes to human person in the sense of being “the guide of the proceedings, the element of propulsion and coordination of the preliminary investigation and, correlatively, the sole interlocutor, a sure point of reference, of citizens in their relations with the administration”.<sup>14</sup> But one could not even imagine the person in charge of the proceedings with the image formerly ideally portrayed by Frosini, by virtue of which he/she would perform the tasks of a “virtual official”.<sup>15</sup> In these cases the machine behaves, in fact, in the same way as a ‘human’ official would behave and would be required to prepare a draft measure to be submitted to the manager of the organisational unit that, at least in a theory, would remain responsible for the decision taken.<sup>16</sup>

However, the traditional regime of public administration liability collapses when the latter uses artificial-intelligence tools. Due to the difficulty of controlling the output of the algorithm, which stems from the digital divide of civil servants.<sup>17</sup>

In fact, the use of *machine learning* would make the figure outlined in Articles 5-6 of Law No. 241 of 1990 completely useless, since it would not be possible to understand how the person involved in the proceedings would be able, for instance, to ascertain the facts *ex officio* and adopt each measure for the proper and prompt conduct of the investigation’, since the prompt (and complete) conduct of the investigation should be guaranteed by the algorithm.

<sup>13</sup> D. Donati, *Digital divide e promozione della diffusione delle ICT*, in F. Merloni (ed.), *Introduzione all’e-government: pubbliche amministrazioni e società dell’informazione*, Turin, Giappichelli, 2005, pp. 209 ff.

<sup>14</sup> M. Immordino, M.C. Cavallaro and N. Gullo, *Il responsabile del procedimento*, in M.A. Sandulli (ed.), *Codice dell’azione amministrativa*, Milan, Giuffrè, 2017, p. 550.

<sup>15</sup> V. Frosini, *L’informatica e la pubblica amministrazione*, in *Rivista trimestrale di diritto pubblica.*, 1983, 484.

<sup>16</sup> In this sense, A.G. Orofino and R.G. Orofino, *L’automazione amministrativa: imputazione e responsabilità*, in *Giornale di diritto amministrativo*, 2005, p. 1311, as well as M.C. Cavallaro, *Imputazione e responsabilità*, 72.

<sup>17</sup> As recently argued by V. Neri, *Diritto amministrativo e intelligenza artificiale: un amore possibile*, in *Urbanistica e appalti*, 2021, p. 592; but, in these terms, M.C. Cavallaro, *Imputazione e responsabilità*, 72-73.

<sup>11</sup> Cons. Stato, Sez. VI, 4 February 2020, no. 881, point 10.6.

<sup>12</sup> On the subject, most recently, M.C. Cavallaro, *Immedesimazione organica e criteri di imputazione della responsabilità*, in *Persona e amministrazione*, 2019, pp. 39 ff.

However, the main issue to be resolved concerns the possibility for the body responsible for the adoption of the final measure to depart from the results of the preliminary investigation conducted by the *virtual procedural officer* by providing an adequate justification.

In this context, it appears (or, rather, re-appears) without any doubt an intense relationship between the principles of accountability and transparency and the obligation to state reasons to adopt a different measure by not deeming valid the conclusions reached during the preliminary investigation. Indeed, it would be extremely complex for anybody responsible for the adoption of the final measure to grasp the dynamics underlying the self-learning algorithm, where, precisely in these circumstances, one is in the presence of computer tools that are so ‘autonomous’ that not even the programmers are sometimes able to grasp all the steps that the machine has followed. Once again, transparency could be the key to resolution, since it creates a link with the administration’s responsibility to demonstrate that the *input* provided and the operation of the algorithm conforms to the reasonableness<sup>18</sup> parameters imposed by the law.<sup>19</sup>

The intrinsic difficulty regarding recourse to such computerised tools highlights another complex profile, following from the full knowledge of algorithmic dynamics. This aspect has already been mentioned, nevertheless deserves to be deeply analyzed to assess the inapplicability of the procedural rules dictated by Article 6 of Law No. 241 of 1990. Would it really be conceivable for the body responsible to adopt the final measure to provide adequate justification for its intention not to comply with the findings of the automated preliminary investigation, where it does not have the technical tools to be able to understand the ‘reasons of the machine’?

<sup>18</sup> M.C. Cavallaro, *Imputazione e responsabilità*, 73-74, finds in reasonableness “the criterion of discernment, through which the administration can assess the outcome of the automated procedure and provide accordingly, or whether to depart from it”, since “the administration’s task is therefore to ascertain that the final decision, the result of an automated procedure, is not in clear contradiction with the intrinsic purpose, i.e. with the public interest, that the administration intends to pursue through the decision itself”.

<sup>19</sup> Again, on this point, V. Brigante, *Evolving pathways of administrative decisions*, Naples, Editoriale Scientifica, 2019, 166.

The answer is certainly negative and recalls the more general role of new techniques in the decision-making processes of public administrations and the role of the competences of bureaucratic apparatuses.

In fact, only where ‘administrators’ will be able to cope with the evolution and progress of computer techniques, will the use of algorithms in decision-making processes constitute a tool for the best pursuit of the public interest, thus making rules such as those in Article 6 of the General Law on Administrative Procedure applicable and relevant again. If this is not the case, i.e. if we continue not to invest in the quantitative and qualitative increase of the staffing of public servants, human intellectual input will have less and less impact than technical input, which will become predominant in every phase of the administrative decision-making process and which will certainly not allow the traditional person in charge of the procedure to correct and improve the preliminary investigation conducted by the algorithm and consequently, carry out a full and effective control over the correctness of the IT tool, which could lead to the actual legitimisation of the administrative-function exercise in specific circumstances.

#### **4. From caselaw legality to substantive legality: the new Article 30 of the Public Contracts Code**

It has been said so far that the algorithmic administration bases its foundations on the principles laid down by case law, in the perspective of a so-called ‘algorithmic legality’, with no relevance whatsoever to the provision of Article 3-bis of Law No. 241 of 1990.

The relevant scope of the discussion on the *breach of substantive legality*, filled by a ‘procedural’ legality, was grasped by the legislator. Article 30 of the new Public-Contracts Code, mentions the possible cases of public contracts awarded through artificial-intelligence systems.

The provision is characterised by three aspects: what is there and is to be welcomed, what is there and has some problematic features, and finally what is missing.

First, it is worth noting how Article 30 ratifies the aforementioned principles: it is a clear declaration of intent on the desire to increase the use of new automation techniques. The transposition of the principles

formulated by case law into a regulatory provision fills Article 3-bis of Law No 241 of 1990 with meaning, and in fact a doubt arises as to the appropriateness of the placement of this provision. In fact, it is a provision of principles, which would fit well within the general law on administrative procedure, and less so within the field of public contracts.

One criticism that can be levelled at this provision concerns the sentence “if possible”. This is an indeterminate legal concept of such latitude as to raise the question of whether the legislator meant ‘legal’ possibility or ‘technical’ possibility. On this point, all the problems resurface regarding the validity/legitimacy of an administrative measure that is entirely automated by *machine learning* algorithms, since the exercise of administrative power is lacking even in the phase of predetermination of the measure’s discretionary content. Even admitting that self-learning algorithms are compatible with the network of guarantees attributed to citizens and economic operators (and on this point it is considered that there is a basic legal incompatibility), there may be several problems of ‘technical feasibility’ that hinder automated administrative activity: inadequately trained personnel and weak digital infrastructures (if any) make it difficult to apply the provision.

However, does Article 30 of the public-contracts code lack anything? It lacks any reference to the issue of discretion. At this point, there are two options on the ground: either the previous caselaw rule on the irrelevance of the distinction between discretion and constraint is taken for granted; or it is confirmed that the issue is so problematic that the typification of a rigid rule that could lead to numerous procedural and procedural problems should be avoided.

The relationship between public authorities and computer algorithms is extremely complex, and the annotated case law represents another episode in a saga that is not about to end soon.