

# The Italian Law Principles for Digitisation and Automation in the Life Cycle of Public Contracts\*

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**ABSTRACT** The article delves into the principles relating to the digitization in the life cycle of public contracts. Preliminarily, the Authors analyze the general principles of the subject: the principle of legality, the so-called “digital citizenship”, the principle of transparency - also understood as accessibility to data and information, as well as the knowability of automated decision-making processes - the implications for the right to the protection of personal data and for IT security.

The analysis then dwells on the technological solutions useful for public contracts and, with particular reference to the automation of decision-making processes, explores the characteristics that distinguish “artificial administrative intelligence” (AAI, an algorithmic discretionary decision-making), and then examines the principles to which the latter must be subject.

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## 1. Introduction

The new Italian public-contracts Law (henceforth, the “Code”<sup>1</sup>) devotes the entire second part of Book I to the digitization of the contract lifecycle, defining it as a form of exercising the function of information, statistical and data processing coordination of the state, regional and local administration, referred to in Article 117.2.r) of the Constitution, thus pertaining to the exclusive State legislative power.

Like many other legal systems, the Italian one too has been reckoning, for decades now, with technological evolution and the expansion of digital technology, which bring with them themes that are already familiar to legislation, and the subject is therefore obviously not new.<sup>2</sup>

The ambition, in this regard, of the last reform of the Public-Contracts Code, however, seems to lie in the chance, made possible by the technological explosion of recent times, of digitizing the entire life cycle of public contracts, and thus of planning, programming, publication operations (e-notification), awarding (e-submission) and execution (art. 21, entitled precisely “digital life cycle of public contracts”), in a true “national digital procurement ecosystem”, which must therefore be able to guarantee its complex management, through databases, platforms and digital services (Art. 22<sup>3</sup>).

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tion, one must consider the Italian “digital administration code” (legislative decree no. 82 of 7 March 2005, henceforth “CAD”), referred to several times in the text and obviously subject to continuous reworking, the presence of AgID (Agenzia per l’Italia Digitale: decree law no. 83 of 22 June 2012, converted into Law no. 134 of 7 August 2012), the mandatory traceability of financial flows relating to public contracts (art. 3 Law no. 136 of 13 August 2010). Not to mention the ombudsman for digitalization (art. 17 paragraph 1-quater of the CAD), the Agency for National Cybersecurity (decree law 14 June 2021, no. 82), the Inter-ministerial Committee for Digital Transition (art. 8 decree law 1 March 2021, no. 22), the digital transition manager (art. 17 of the CAD), and the recent adoption of the measures for the “virtual file of the economic operator” (ANAC resolution 27 July 2022, no. 464, art. 24 of the Code).

<sup>3</sup> The e-procurement system relies first and foremost on the National Database of Public Contracts (art. 62-bis of the CAD), managed by ANAC, which in turn is fed by the Public Contracts Platform - PCP, the Virtual File of the Economic Operator - FVOE, the Computer Record of Public Contracts, the Registry of Economic Operators

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<sup>1</sup> Legislative decree 31 March 2023, No. 36; the articles quoted above without any specification of the source, refer to it. For the contemporary characteristics of codes, see for all the works collected in M.A. Sandulli (ed.), *Codificazione, semplificazione e qualità delle regole*, Milan, Giuffrè Francis Lefebvre, 2003, 19-20.

<sup>2</sup> Without going into too much detail, and with reference only to public contracts, suffice it to mention that, in Italy, in 1997 Consip S.p.a. was established, in 2000 the *P.A. Procurement Rationalization Program* were started, in 2003 the *P.A. Electronic Market*, in 2011 the *P.A. Dynamic Purchasing System*. The crisis of the 2010s facilitated the emergence of concentration mechanisms, such as the centralization of purchasing and the aggregation of purchases of supplies and services, and, on the basis of the European Directives of 2014, everything converged in the 2016 Public Contracts Code. In addi-

The Code cannot overlook the fact that the digitization of public contracts is among the most relevant objectives of the National Recovery and Resilience Plan, which envisages the implementation of a National e-Procurement System capable of achieving the so-called Smart Procurement (“the complete digitization of purchasing procedures up to the execution of the contract”).

We shall see, however, that “digitalization” is only one aspect of the technological transition of public administration,<sup>4</sup> and that, therefore, a “digital life cycle of public contracts” does not imply, in itself, the complete automation of decisions, as it may well be limited to the support of the documentation and acts of the relevant operations, in a sort of *android* administration in which digital, analogue, automatic and human work continue to coexist.<sup>5</sup> And yet, in perspective, there is obviously the possibility of leaving all segments of public procurement to machines, and of this, as we shall see, the new Code seems to be beginning to take charge.

## 2. Lawfulness and discipline by principles in the use of digital materials and automated procedures

The provisions of the Code dedicated to the subject in fact specify that recourse to the automation of decisions is to be made “where possible”,<sup>6</sup> and this, apart from the difficulty of distinguishing when it is “possible” to use them, nevertheless says that - at least for the time being - their use is not an obligation in the strict sense.

When it is used, however, automating the activities of contracting and awarding Authorities presupposes the use of “technological solutions, including artificial intelligence and distributed register technologies”, and is explicitly conceived with a view to improving efficiency (Art. 30.1).

It is precisely this propensity for what we

might call, roughly translating the Italian constitutional expression, “the good performance” (“buon andamento”, in Italian) of public contracts, that may constitute a sufficient argument to reduce the indisputable relevance of the question pertaining to the principle of lawfulness in this matter, considering the peculiarity of the performance of administrative activity entrusted, even in part, to machines.<sup>7</sup>

Indeed, it should be reiterated that even when all the material used for an operation is in digital format, automation in the administrative sphere need not necessarily comprehend the entire procedure, and thus can even not include the final measures and acts, whether or not they are of a discretionary nature. And it must be considered that, according to some, if in the administration totally entrusted to the machine (hence, also including the possible decision), humans would not be there at all, there would still be a risk of “capture” even when, having digitized the rest, the final act remained human.<sup>8</sup>

It has been noted, in fact, that there would still be a significant alteration of function, even when recourse to machines would be limited to preparing the final measure after conducting the preliminary enquiry. Indeed, even in that case it would end up having an eminence, a decisive influence on the subsequent human behavior, which would hardly be able to deviate from the automatic proposal albeit having reasons to do it, because of the difficulty of objecting to the power of calculation, or because of the discharge of personal responsibility that such a situation would allow for the public official who adhered to it; and further on we shall have occasion to illustrate other alterations highlighted in the literature.<sup>9</sup>

The issue is therefore far from irrelevant.

and the Single Registry of Contracting Stations - AUSA, to which must be added the National Digital Data Platform (art. 50-ter of the CAD).

<sup>4</sup> I have dealt with this issue in P. Forte, *Il bene culturale pubblico digitalizzato*. First notes for a legal study, in *P.A. Persona e Amministrazione*, 2, 2019, 288 ff.

<sup>5</sup> On this subject, see M. Pignatti, *La digitalizzazione e le tecnologie informatiche per l'efficienza e l'innovazione nei contratti pubblici*, in *www.Federalismi.it*, 12, 2022, 155.

<sup>6</sup> See Art. 30.1, and Art. 19.7 for automated procedures in the evaluation of tenders.

<sup>7</sup> Among others, see S. Civitarese Matteucci, *Umano troppo umano. Decisioni amministrative automatizzate e principio di legalità*, in *Diritto pubblico*, Vol. spec. 19, 2019; in caselaw, the most complete reference is to the sentence of the Italian Administrative Judge called “Consiglio di Stato” (henceforth, “Cons. Stato”), VI, 8 April 2019, n. 2270.

<sup>8</sup> For all see B. Marchetti, *Amministrazione digitale*, in *Enc. Dir. - I Tematici*, Vol. III, Milan, Giuffrè Francis Lefebvre, 2022, 98 ff., which also illustrates empirical data based on behavioral experiments.

<sup>9</sup> A. Simoncini, *Profili costituzionali dell'amministrazione algoritmica*, in *Rivista Trimestrale di diritto pubblico*, 2019, 1187, speaks of the *chrism* of “scientificity”, or even “neutrality”, surrounding algorithmic evaluation today.

Recourse to dematerialization, automation and telematics for communications, constitutes clear advantages for the effectiveness and efficiency of the public administration, whether it is exercising functions or providing services. In short, the technological aid is an opportunity for an administrative activity (not only of public contracts) that is actually responsible, that is, aware of the cognitive expansions, operational enhancements, and, in a nutshell, the benefits that can arise for such activity.<sup>10</sup>

Not only, therefore, do we already have numerous more or less explicit regulatory bases supporting digitization and administrative automation (see, for all, arts. 12.1 and 41 of legislative decree no. 82 of 7 March 2005, the Italian “digital public administration Code”, henceforth “CAD”), but these, it has been noted, are also relevant for the implementation of the constitutional principle of impartiality,<sup>11</sup> and its propensity for transparency;<sup>12</sup> so that, paradoxically, it could be the failure to use of the available technology that poses a problem of legal validity of the act or behavior that, although it could, does not use it.<sup>13</sup>

What is more, even where there is no specific regulation of automated administration (i.e. a “strict typicity” for automated acts<sup>14</sup>), there are now widespread and numerous principles from European or domestic sources on the subject; and it is well known that the legality of our time very often resorts to principles for many reasons that we could say, briefly, of “legal complexity”,<sup>15</sup>

with a *multilevel* mechanism of normative production, a variety of decision-making centers with legislative capacity, the consequent multiplication, inflation, and fragmentation of sources and their normative products.<sup>16</sup>

Some fear the consequences of legal regulation by principles, for instance because it would reduce the predictability of law, and increase subjectivism and the role of the judge.<sup>17</sup> However, it is undeniable that this technique makes it possible to deal with concrete cases that cannot be subsumed in a specific legal case,<sup>18</sup> in a “model rule”,<sup>19</sup> using legal instruments, as is frequent in today’s complex world. Even more so, in relation to human experiences that are in transition, such as the automation of public administration, in which it is necessary not only to generate, but continually to renew rules in relation to facts that are still little known, or in physiological evolution, and can therefore present themselves in ever-changing guises.<sup>20</sup>

Moreover, in technological solutions, it is necessary, right from the design of operating systems, to contemplate guidelines, purposes, limits and ethical clauses to be translated into legal guarantees and protections that can be invoked in actual behaviors and, if necessary, before a judge. Norms in the form of principles, fundamental rights and general clauses are extremely useful, also because, we repeat, digital technologies suffer from the so-called “pacing problem”, they tend to develop faster than the legal provisions concerning them, causing a continuous gap between the state of technology and the rule that intends to

<sup>10</sup> For G. Racca, *Le responsabilità delle organizzazioni pubbliche nella trasformazione digitale e i principi di collaborazione e buona fede*, in *Diritto amministrativo*, 2022, 627 ff., given that with the aid of technology, administrative activity can be more accurate, conscious, and aware, and given the progress of the tools that the digital transition continually updates, it becomes a duty to seize the opportunities that derive from it, responding to the needs of a society that physiologically increases its complexity, and therefore requires adequate responses.

<sup>11</sup> G. Orsoni and E. D’Orlando, *Nuove prospettive sull’amministrazione digitale: Open Data and algoritmi*, in *Istituzioni del federalismo*, 3, 2019, 605.

<sup>12</sup> For all, and to point out how this is anything but local, see P.G. Nixon, V.N. Koutrakou, R. Rawal (eds.), *Understanding E-Government in Europe*, Oxford, Routledge, 2010.

<sup>13</sup> For this and other implications, L. Casini, *Lo Stato nell’era di google*, in *Rivista trimestrale di diritto pubblico*, 2019, 1111 ff.

<sup>14</sup> S. Civitarese Matteucci, *Umano troppo umano*, 7.

<sup>15</sup> A. Falzea, *Complessità giuridica*, voce in *Enc. dir., Annali*, I, Milano, Giuffrè, 2007, 207 ff.

<sup>16</sup> Impossible to review the literature on the subject; among many, and most recently, see R. Cavallo Perin, *La validità dell’atto amministrativo tra legge, principi e pluralità degli ordinamenti giuridici*, in *Diritto amministrativo*, 2017, 637 ff.; M. Bombardelli, *Semplificazione normativa e complessità del diritto amministrativo*, in *Diritto pubblico*, 2015, 1020 ff.

<sup>17</sup> For all, N. Irti, *Un diritto incalcolabile*, Turin, Giappichelli, 2016.

<sup>18</sup> Also, here for all, R. Bin, *Diritti e argomenti. Il bilanciamento degli interessi nella giurisprudenza costituzionale*, Milan, Giuffrè, 1992.

<sup>19</sup> R. Dworkin, *I diritti presi sul serio*, transl. it., Il Bologna, Mulino, 2010, esp. chapters II and III.

<sup>20</sup> I have addressed the issue of “increased complexity” in P. Forte, *Complessità e situazioni giuridiche. Notazioni teoriche*, in AA.VV., *Scritti per Franco Gaetano Scoca*, III, Editoriale Scientifica, Napoli, 2021, 2143 ff.; in more general terms, about public contracts, see V. Brigante, *Evolving pathways of administrative decisions. Cognitive activity and data, measures and algorithms in the changing administration*, Naples, ES, 2019, 36.

regulate it, especially if the latter is too precise.<sup>21</sup>

Suffice it to observe how the digital systems already customary in public contracts, have generated considerable need for experimentation and progressive adjustments, many still ongoing. Even the new version of the Code, in fact, brings modifications to the previous discipline on dynamic acquisition systems (art. 32), electronic auctions (art. 33), electronic catalogues (art. 34), while the provision of the register of economic operators (art. 31) constitutes an important innovation.

The usefulness of principles in this field probably reaches its peak in technological solutions that use *machine learning* systems, that can consist of cognitive and evaluative manoeuvres, even very complex ones (*deep learning*), and lead to automatic decisions, hence discretionary acts, even without human supervision. With respect to such results, the authors of the software and those working on its implementation can only give assurances as to certain criterion settings, while the actual course of action to reach the output may not be predictable, since it is the result of autonomous operations performed by the machine.<sup>22</sup>

And, finally, it should be recalled that recourse to principles (in particular those of equal treatment, non-discrimination, transparency, proportionality) is customary in European public-contract law, derived as it is from the most fundamental provisions of the Treaties (in particular on the free movement of persons, goods and capital, freedom of establishment and freedom to provide services: see recital 1 of Directive No 24/2014), so much so that they apply to every public contract, regardless of value and market significance.

If, therefore, the Public-Contracts Code finds and in turn reinforces a regulatory basis for the digitized and automated action of the public administration, it is not surprising that it also brings with it an important innovation. Indeed, it lays down various *principles*

besides those in part I concerning every type of public contract. Specifically, it introduces principles for public contracts' entire digitized life cycle, "end-to-end", thus bringing together all the specific and dedicated principles in art. 30 and, to some extent, also those in art. 19. Moreover, (to conclude on this point) numerous other provisions (in addition to those already mentioned in general terms, see Article 3-bis of Law n. 241/1990), scholarship<sup>23</sup> and even caselaw, different approaches notwithstanding,<sup>24</sup> have had no hesitation in concluding that even in the automated form, in its various declinations, the public administration is always bound by the principles and provisions that govern in general terms its organization and its action (on this point we will return shortly).

### 3. Principles related to digital citizenship

The protection of legal situations (often hastily referred to as "rights") pertaining to "digital citizenship" are counted by Art. 19.1, together with the guarantees that contracting Authorities and granting bodies must fulfil in the digital life cycle of public contracts. Such "rights" and guarantees are based upon principles that we are about to examine (uniqueness of delivery, technological neutrality, transparency, IT security, protection of personal data).<sup>25</sup>

In fact, the notion of "digital citizenship" - although already expressly referred to in current Section II of Chapter I of the CAD, under the heading "Digital Citizenship Charter" (Articles 3 to 9) - lacks a normative definition, as does that of citizenship *tout court*. However, there is no lack of "soft" material to try to draw its constituent elements, such as the "Guide to the Rights of

<sup>21</sup> G.E. Marchant, *Addressing the Pacing Problem*, in Dordrecht, G. Marchant, B. Allenby and J. Herkert (eds.), *The Growing Gap between Emerging Technologies and Legal-Ethical Oversight: The Pacing Problem*, Cham, Springer, 2011, 199 ff.

<sup>22</sup> L. Viola, *L'intelligenza artificiale nel procedimento e nel processo amministrativo*, 12; A. Simoncini, *Profili costituzionali dell'amministrazione algoritmica*, 1155.

<sup>23</sup> For all, E. Carloni, *I principi della legalità algoritmica. Le decisioni automatizzate di fronte al giudice amministrativo*, in *Diritto amministrativo*, 2020, 2; F. Patroni Griffi, *Intelligenza artificiale: amministrazione e giurisdizione*, 483.

<sup>24</sup> In addition to the already mentioned Cons. Stato, VI, 8 April 2019, n. 2270, see Tar Lazio, Rome, III-bis, 10 September 2018 n. 9224, 9225, 9226, 9227, 9228, 9229 and 9230, 19 April 2019, n. 5139, 28 May 2019, n. 6688, 13 September 2019, n. 10963.

<sup>25</sup> "Enabling factors" for L. Ponzzone, *La nuova disciplina dei contratti pubblici*, Nel diritto Editore, Molfetta, 2023, 90. Strictly speaking, the review would also include the principles of non-discrimination and non-exclusivity of algorithmic decision-making, but since they relate specifically to automated administrative activity, they will be dealt with later (see Sections 5.3 and 5.4).

Digital Citizenship”<sup>26</sup>, according to which digital citizenship would consist of the set of “digital rights that, thanks to the support of a series of tools and processes (e.g. digital identity, certified e-mail and digital domicile, electronic signatures, IT payments), contribute to facilitating citizens and businesses to use the services of the Public Administration”.

Hence, what is somewhat vaguely called the right to the use of technologies under Article 3 of the Italian Digital Administration Code (CAD), would be fulfilled through various protections,<sup>27</sup> which concern digital identity, accessibility of *websites* and mobile applications, use of telematics for communications, applications and the circulation of documents and data.<sup>28</sup>

In short, as with citizenship in general, its digital projection involves considering a series of elements, complex and differentiated protections, and services aimed at overcoming unjust inequalities, in a manner not too different from what we have already observed with respect to fundamental rights, especially the so-called social rights.<sup>29</sup>

<sup>26</sup> Adopted in 2022 by AgID, pursuant to Article 17, par. 1-*quinques* of the CAD.

<sup>27</sup> For F. Faini, *Il volto dell'amministrazione digitale nel quadro della rinnovata fisionomia dei diritti in rete*, in *Il diritto dell'informazione e dell'informatica*, 4-5, 2019, 1103, the right in question “stands as a “mother” norm and regulates the fundamental right in the hands of private individuals, flanked in the CAD by a series of “derivative” rights linked to the procedure or relating specifically to communications”.

<sup>28</sup> In the aforementioned “Digital Citizenship Charter” it is specified, with a reference to the individual provisions of the CAD, that “digital citizenship rights are concrete when anyone can access *online* services simply, securely and quickly (right to use technologies, digital identity, accessibility of *websites* and mobile applications); quickly acquire reliable information and/or clearly express one’s needs, establishing rapid communication with the public administration to which one turns for a procedure or a service (telematic instances, electronic communications, digital domicile); benefit from digital payment methods that ensure greater transparency and security (payments by electronic means)”.

It is useful to point out that, in order to ensure the effective protection of digital-citizenship rights, the CAD, in addition to judicial protection (Art. 3, para. 1-*ter*; Art. 7, para. 4), provides for the possibility of sending a complaint to the Digital Ombudsman (DCD), set up within AgID as a single national ombudsman (Art. 17, para. 1-*quater*): A. Contaldo, *Il difensore civico nazionale per il digitale presso AgID: cenni su un'istituzione in fieri*, in *Rivista amministrativa della Repubblica italiana*, 5-6, 2019, 237 ff., e.g., considers that “the time does not yet seem to have come to speak of a true digital citizenship statute, [...] that makes explicit the rights and duties of citizens vis-à-vis PAs and a more limpid enforceability of these rights”.

<sup>29</sup> M. Caporale, *Dalle smart cities alla cittadinanza digi-*

Thus, “digital-citizenship rights” would have a constitutional basis not only in the principles of impartiality and good performance of the Public Administration, but also in those of Articles 2 and 3 of the Constitution.<sup>30</sup> Such interpretation is consistent with some the perspectives found in European documents, in which digital citizenship is defined, for instance, as “the ability to participate actively, continuously and responsibly in the life of the community (local, national, global, online and offline) at all levels (political, economic, social, cultural and intercultural)”, and “the set of values, skills, attitudes, knowledge and critical understanding that citizens need in the digital age”.<sup>31</sup>

### 3.1. *Once-only delivery and technology neutrality*

Among the principles safeguarding digital citizenship in public contracts, there is, first and foremost, the so-called “*once only*”. As expressly provided for in Article 19.2, according to such principle contracting Stations and granting Bodies may not ask economic operators data or information that are already in their possession or available through access to public administrations’ databases. Although the “*once only*” principle can be perceived, in substance, as an evolution

*tale*, in *www.Federalismi.it*, 2, 2020, 45; P. Otranto, *Decisione amministrativa e digitalizzazione della p.a.*, in *www.Federalismi.it*, 2018, 2, 13; M. Martoni, *Datificazione dei nativi digitali. Una prima ricognizione e alcune brevi note sull'educazione alla cittadinanza digitale*, in *www.Federalismi.it*, 1, 2020, 119 ff.. Signs of attention in this regard can be found in the provisions of Articles 2.1 and 8 of the CAD, in the PNRR (in particular, in M1C1, whose Investment 1, highlights the need to accompany the digital transformation of infrastructure and services with “interventions to support citizens” digital skills, to ensure robust and pervasive support for the country’s digital literacy journey; and, more recently, in the “Digital Republic” initiative included in the document “Italy 2025 - Strategy for Technological Innovation and the Digitalization of the Country”.

<sup>30</sup> F. Faini, *Il volto dell'amministrazione digitale*, 1101 identifies its constitutional coverage in Articles 2 and 3 of the Italian Constitution and “in a set of further norms and relative freedoms”, starting from the perspective according to which “digital citizenship identifies the very configuration of citizens’ rights vis-à-vis institutions, made possible by new technologies”.

<sup>31</sup> See, respectively, Recommendation CM/Rec[2019]10 of the Committee of Ministers to member States on developing and promoting digital citizenship education and Council Conclusions on Digital Education in the European Knowledge Societies 2020/C 415/10, footnote 7, cited by G. Pascuzzi, *La cittadinanza digitale*, Bologna, *Il Mulino*, 3, 2022, 3.

of what existing rules already provide for,<sup>32</sup> it is relevant in the digital legal relationship with the PA. Indeed, the 2020-2026 update of the “Simplification Agenda 2020-2023” considers it a priority objective within the “Simplification and Digitization” intervention. Such interpretation is consistent with the PNRR, which had already defined *once-only* “e-government as the concept whereby citizens and businesses must be able to provide their information to authorities and administrations ‘once only’”. Thus, “once only” constitutes an essential enabling condition for the achievement of full interoperability between public bodies and their information bases.<sup>33</sup>

With specific reference to public contracts, interoperability will therefore prove crucial,<sup>34</sup> as well as the inclusion in the national e-procurement ecosystem of the most relevant databases (Register of physical and legal persons, Register of Enterprises, the Public Administration Database, etc.) for the effective exchange of information and data (Art. 22. 3).

It is also important to take into account the continental dimension of a significant part of public contracts. Indeed, adequate and ultra-national interoperability is obviously necessary in order to apply this principle to economic operators in all parts of Europe for acquisitions of goods, works and services with an above-threshold value. Moreover, public administrations’ ability to acquire and manage huge amounts of data according to open logic,

also using anonymized big data, will also prove important for their regulatory policies and choices, as well as for the efficiency of their own activities and services.<sup>35</sup>

In the new Code, communications and the exchange of data for the purposes of knowledge and transparency take place in compliance with that principle (Art. 20 2, to be read in conjunction with Art. 28). Moreover, economic operators may not be requested to provide documents proving the fulfilment of the participation requirements or other documents useful for the purpose of the award, if these are already uploaded in their own virtual file, or if they are already in the possession of the contracting authority as a result of a previous award or the conclusion of a framework agreement (Art. 99.3).

The virtual file is set up within the National Database of Public Contracts (BDNCP) and contains the data necessary to verify that economic operators meet the general requirements and feature professional suitability, economic and financial capacity and technical and professional capacity.

Therefore, similarly to what has been said regarding pre-existing provisions,<sup>36</sup> the virtual file will necessarily constitute a fundamental tool for the implementation of the once-only principle since it excuses economic operators from having to repeatedly produce, in each tender procedure, the information on its qualification and eligibility.

Lastly among the principles that must inspire digitization, Article 19.1 expressly refers to “technological neutrality”. Although its meaning is susceptible to different interpretations depending on the regulatory

<sup>32</sup> G. Carloti, *I principi nel Codice dei contratti pubblici: la digitalizzazione*. Report delivered at the conference on *I principi nel Codice dei contratti pubblici*, organized by the Fondazione CESIFIN - Alberto Predieri, Florence, on 14 April 2023, in [www.giustizia-amministrativa.it](http://www.giustizia-amministrativa.it), for example, recalls art. 18 co. 2 and 3 of law no. 241 of 7 August 1990, or art. 43, co. 1 and 4, of Presidential Decree no. 445 of 2000.

<sup>33</sup> In turn, the Three-Year Plan of Information Technology for Public Administration, in its 2022-2024 update, finds an indispensable factor for the implementation of the *once-only* in the National Digital Data Platform (PDND), which, established by Legislative Decree No. 17 of 13 December 2017, constitutes today - especially following the amendments made to Article 50-ter of the CAD by Legislative Decree No. 77 of 31 May 2021 - a fundamental tool for sharing public data.

<sup>34</sup> Think of the connections between the National Public-Contracts Database and the digital-procurement platforms used by contracting Stations and awarding Bodies, the Portal of the aggregators, the National Digital Data Platform [PDND], the databases of national interest under Art. 60 CAD, and the other platforms and databases of the subjects involved in the life cycle of public contracts: see Art. 23.

<sup>35</sup> B. Marchetti, *Digital Administration*, 94. E.g., EU Reg. N. 1780 of 23 September 2019 provides for model electronic forms for the publication of contract notices, and stipulates that as of 25 October 2023 all contracting stations must convey contracting information via the electronic forms provided for in the new regulation.

<sup>36</sup> Article 81.4 of Legislative Decree N. 50/2016; see G. Racca, *Le responsabilità delle organizzazioni pubbliche nella trasformazione digitale e i principi di collaborazione e buona fede*, in *Diritto Amministrativo*, 3, 2022, 605; M. Clarich, *Le innovazioni per la qualificazione degli operatori economici*, in R. Cavallo Perin and M. Lipari (eds.), *Contratti pubblici e innovazione per l’attuazione della legge delega* Naples, Jovene, 2022, 81; P. Clarizia, *L’e-procurement*, in V. Bontempi (ed.), *Lo Stato digitale nel Piano Nazionale di Ripresa e Resilienza*, Rome, Roma tre Press, 2022, 114; M. Mariconda and E. Ruggiero, *La digitalizzazione degli appalti pubblici: l’attesa continua*, in *Astrid Rassegna*, 17, 2021, 23.

context,<sup>37</sup> for our purposes its application implies that administrations should neither impose nor enhance the use of a given technology, with the effect of preventing or making access difficult or costly for those who do not have it, thereby unreasonably favoring a specific solution or product.<sup>38</sup>

#### **4. Transparency and traceability**

The principle of transparency (as will be seen) derives in specific implications concerning automated procedures. The principle constitutes one of the cornerstones of digitization. Generally, its relevance in public contracts is well known, also in view of its implications on the equality of economic operators, on competition, and on the fight against corruption.<sup>39</sup>

In particular, in Italy the transparency paradigm<sup>40</sup> immediately includes the publication obligations pursuant to Legislative Decree No. 33 of 14 March 2013, explicitly referred to in Art. 20 (“Principles of transparency”), and Art. 28 under the heading “Transparency of public contracts”. It is also relevant for the “digital principles and rights” enshrined in Art. 19 of the Code, on which we will focus our attention. They concern

accessibility of data, information and platforms, as well as the principle of knowability and comprehensibility of automated decision-making processes (Art. 30.3.b). Such provisions must be interpreted in conjunction with the ones requiring availability of the source code and the relevant documentation, as well as of any other element useful to understand the operating logic of the technological solutions used (Art. 30.2.a).

##### **4.1. Accessibility of data and information**

As mentioned above, Article 19 lists as “digital principles and rights”: the accessibility of data, the information that can be extracted from them, and the platforms used to carry out procedures.

In short, the new Code’s provision to digitalize access to documents conforms it to the system of platforms, from which it is possible to acquire information directly, including from all candidates and bidders who have not been definitively excluded, after the award. It also confirms (with some innovative clarifications) the modalities previously laid down for cases when the exercise of the right affects competitors.

Legal accessibility in this matter should be interpreted within the consolidated broader coordinates of the “accesses” referred to in Law No. 241 of 7 August 1990 and Legislative Decree No. 33 of 14 March 2013. Indeed, it is not by chance that such provisions are expressly recalled in Article 35 of the Code, dedicated to discovery through the acquisition of the data and information included in the platforms. And indeed, the now various forms of access in which transparency in the P.A. is declined, constitute explications of general principles of administrative action<sup>41</sup> as legal situations, mostly perceived (and expressly so qualified by the legislator) as subjective rights.<sup>42</sup>

<sup>37</sup> P. Bonini, *Neutralità tecnologica e partenariato pubblico-privato*, in *Lo Stato digitale nel Piano Nazionale di Ripresa e Resilienza*, 61 ff.

<sup>38</sup> In fact, already Art. 68 of the CAD stipulates that public administrations acquire computer programs or parts thereof in compliance (also) with the principle of technological neutrality, by carrying out a comparative technical and economic assessment of the solutions available on the market and, before proceeding to purchase in accordance with the procedures laid down in the Public-Contracts Code, they evaluate the different solutions - in addition to the costs of purchase, implementation, maintenance and support, and to the guarantees in terms of security, personal-data protection, services - also for the level of use of open-data formats and interfaces and of standards capable of ensuring interoperability and application cooperation between the different information systems. For a more detailed discussion, see G. Carullo, *Principio di neutralità tecnologica e progettazione dei sistemi informatici della pubblica amministrazione*, in *Cyberspazio e diritto*, vol. 21, 64, 2020, 1, 33 ff.

<sup>39</sup> R. De Nictolis, *I nuovi appalti pubblici. Appalti e concessioni dopo il d.lgs. 56/2017*, Zanichelli, Turin, 2017, 610 ff. On the relationship between corruption prevention and transparency, see E. Carloni, *Alla luce del sole. Trasparenza amministrativa e prevenzione della corruzione*, in *Diritto Amministrativo*, 3, 2019, 497 ff.

<sup>40</sup> E. Carloni, *Il Paradigma trasparenza. Amministrazione, informazione, democrazia*, Bologna, Il Mulino, 2022; D. Donati, *La trasparenza nella Costituzione*, in F. Merloni (ed.), *La trasparenza amministrativa*, Milan, Giuffrè, 2008, 83 ff.

<sup>41</sup> See, respectively, Article 22, para. 2 of Law N. 241/1990; Article 1 of Legislative Decree N. 33/2013; Articles 41 and 42 of the Charter of Fundamental Rights of the European Union, and Article 11 of the Treaty on the Functioning of the European Union: D.U. Galetta, *La trasparenza, per un nuovo rapporto tra cittadino e Pubblica Amministrazione: un’analisi storico-evolutiva in una prospettiva di diritto comparato ed europeo*, in *Rivista italiana di diritto pubblico comunitario*, 2016, 1019 ff.

<sup>42</sup> Among others, see the sentence of the Italian Constitutional Court (henceforth, “Corte Cost.”), 21 February 2019, n. 20, and Cons. Stato, ad. plen., 2 April 2020, no.

For public contracts, Article 35 of the Code is crucial, because it guarantees digital access to the acts of the awarding procedures and the performance of public contracts by means of direct acquisition of the data and information entered in the platforms (para. 1). Moreover, in continuity with the structure of the former Article 53 of Legislative Decree No. 50 of 18 April 2016, it conditions access to certain acts, data and information to precise time limits (paras. 2 and 3), and excludes it altogether in some cases (paras. 4 and 5).

By expressly acknowledging both the right of access under Article 22 of Law No. 241/1990 and the generalized civic right governed by Article 5.2 of Legislative Decree No. 33/2013, Article 35.1 of the Code purports to apply to public contracts a broad interpretation of the principle of transparency, understood as “total accessibility of the data and documents held by public administrations”, in line with the most recent case law on the subject.<sup>43</sup>

10; as for the “classic” right of access, for some time now the prevailing approach has been to classify it in terms of a subjective right, albeit with the specification that it would be an “instrumental” subjective right, aimed at protecting another legally relevant interest (Cons. Stato, ad. plen. 18 April 2006, n. 6, and 20 April 2006, n. 7).

<sup>43</sup> And in fact, a real turning point on the subject of access to tender documents, but more generally on the subject of the right of access, was marked by the ruling with which the Plenary Assembly of the *Consiglio di Stato*, resolving a jurisprudential contrast that it would be impossible to go into here (Cons. Stato, III, 5 June 2019, n. 3780; V, 2 August 2019, n. 5502 and n. 5503), concluded that: “with specific reference to the matter of public contracts, the requirements of generalized civic access, assume, on closer inspection, a particular and more pregnant connotation, because they constitute the “physiological consequence” of public evidence, since what is publicly evident, by definition, must also be publicly knowable, subject, of course, to the limits of the law and only of the law” (Cons. Stato, ad. plen. 2 April 2020 n. 10; Cons. Stato, III, 3 November 2022 n. 9567; V, 29 April 2022 n. 3392; III, 25 January 2021 n. 697; IV, 4 January 2021 n. 61). In the illustrative report of the scheme prepared by the Council of State, it is stated that: “With generalized civic access, the legislator wished to introduce the right of the individual to seek information, as a right that allows participation in public debate and to know the data and decisions of the administrations in order to make possible that “democratic” control that the institution intends to pursue. Knowledge of documents, data and administrative information allows, in conclusion, participation in the life of a community, the closeness between government and the governed, the conscious process of accountability of the political and managerial class of the country”. On the subject, A. Corrado, *L'accesso civico generalizzato, diritto fondamentale del cittadino, trova applicazione anche per i contratti pubblici: l'Adunanza plenaria del Consi-*

The new rules deal, first, with the timing of access to the tender documents (paras. 2 and 3), stipulating that the lists of participants in the procedure (including: bidders, those who have expressed interest, and have been invited to submit tenders) are not accessible or knowable until the deadline for submission of tenders. The rules also concern cases in which a request for invitation has been rejected, specifying which documents and acts shall remain inaccessible or not knowable until the awarding of the contract.<sup>44</sup>

Regarding the regime of exclusions, Article 35.4 - unlike former Article 53.4 - distinguishes the cases in which the right of access and all forms of disclosure “may be excluded”, from those in which they “are excluded”, which include legal advices,<sup>45</sup> confidential reports,<sup>46</sup> digital platforms and IT

*glio di Stato pone fine ai dubbi interpretativi*, in *www.Federalismi.it*, 16, 2020, 48 ss.; R. Vampa, *Doppia chance per l'Amministrazione sull'accesso civico?*, in *www.Federalismi.it*, 20, 2021, 174 ss. Also with regard to the “classic” access to tender documents, useful reconstructive hints can be drawn from the interpretative coordinates already traced with regard to the former art. 53 of Legislative Decree n. 50/2016, brought back under the constitutional profile “to the right of enterprise (art. 41 Const.) lato sensu intended, as well as to the legitimate aspiration to verify [...] the correctness of the act of the public powers (Articles 3, 24 and 97 Const.) in a procedure in which [it has been] deployed its capacity to act in the system (Article 2 Const.)” (Cons. Stato, V, 29 April 2022 no. 3392).

<sup>44</sup> More specifically, these are the requests to participate, the documents, data and information relating to the conditions for participation and the minutes relating to the admission phase of candidates and tenderers; the tenders, the minutes relating to their evaluation and the preparatory documents, data and information, as well as the report relating to the verification of anomalies in the tender.

<sup>45</sup> As pointed out by M. Trimarchi, *Art. 53*, in L.R. Perfetti (ed.), *Codice dei contratti pubblici commentato*, Milan, Wolters Kluwer, 2017, 540, with regard to the homologous exclusion under the previous Code, “secrecy serves to prevent the private party from learning in advance of the arguments that, in all likelihood, the administration will use in court to defend its position. The prohibition of access is therefore placed to guarantee the right of defense of the contracting authority and the equality of arms between the parties to the possible trial”.

<sup>46</sup> In this case, on the other hand, “the rationale of the prohibition is to prevent the private party from becoming aware of the elements on the basis of which the contracting authority’s willingness to settle will be formed, taking advantage of it in the determination of its own position. To this must be added that the confidential reports contain defensive arguments that the administration could use in a possible judgement: in this respect, the ratio of secrecy is identical to that already set out in relation to legal opinions acquired during the proceedings for defensive purposes” (in terms, M. Trimarchi,



infrastructures used by the contracting Authority or the grantor Body protected by intellectual property rights (para. 4.b).<sup>47</sup>

On the other hand, the *possibility of exclusion* is envisaged for “information provided as part of the tender or in justification thereof which, according to a reasoned and substantiated declaration by the tenderer, constitutes technical or trade secrets” (para. 4.a). Nevertheless, the tenderer is allowed access to technical and trade secrets, digital platforms and IT infrastructures used by the contracting Authority or the awarding Body, even if they are covered by intellectual property rights, “if indispensable for the defense in court of its legal interests represented in connection with the tender procedure” (Art. 35.5).

With particular reference to the exemption relating to the processing of technical or trade secrets, the new rules significantly depart from the previous ones. Indeed, the new rule specifies that access is allowed only if “indispensable”, thereby seemingly limiting it to cases in which disclosure of the offer shall be used in the defense of the applicant’s legal interests in court. Such reading imposes a “tightly knit” balancing of interests, similar to - although less rigorous than - the assessment of “strict indispensability” required by Art. 24.7 for access to documents containing sensitive and judicial data.

Secondly, according to Art. 36.3 in communicating the award, the contracting Authority or the awarding Body shall record the decisions taken on any request to obscure the information that economic operators alleged to be technical or commercial secrets. If the request for secrecy is rejected, disclosure is however not permitted before the expiry of the ten-day time limit for appeal (Art. 36.5).<sup>48</sup>

Art. 53, 541).

<sup>47</sup>This is a different exclusion, but one that can be compared to the one laid down in the previous code with regard to “technical solutions and computer programs used by the contracting authority or the operator of the computer system for electronic auctions, where covered by intellectual property rights”.

<sup>48</sup> Even if such new profiles are found, it is useful to recall the caselaw on the interpretation of the homologous art. 53 co. 6 of Legislative Decree no. 50/2016 (Cons. Stato, III, 13 July 2021, n. 5290; V, 28 February 2020, n. 1451), in the light of which it has been clarified that, when there is no “contrast between defensive access and technical and commercial secrets, no possible assessment [must] be carried out with regard to the instrumentality between the documentation requested and the de-

That said, it is worth recalling that for the purposes of access exercised pursuant to Article 22 of Law No. 241/1990, as well as for “defensive” access pursuant to Article 24, paragraph 7 of the same Law, public administrations holding the disputed document shall not carry out any *ex ante* assessment on its admissibility, influence or decisiveness in any ongoing legal proceedings, except in cases of obvious, absolute lack of connection between the document and the defense.<sup>49</sup>

#### **4.2. Data protection and IT security**

Also relevant among the rights that contracting and awarding Authorities shall

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fensive needs in a lawsuit already brought [...] referring, if anything, to paragraph 1 of art. 53 itself, which refers to art. 22 et seq. l. 241/90 - insofar as not expressly derogated by the Public-Contracts Code itself - and therefore to the generic regulation of the right of access” (Cons. Stato, n. 3392/2022).

This interpretation is based on the premise that “there are two logics within which the institution of access operates: the logic of participation and transparency and the logic of defense. The exercise of administrative power is intended for both, according to clearly differentiated procedural rules. The participatory logic hinges on the general principle of the greatest possible transparency, with the only limit represented by the exclusions listed in paragraphs 1, 2, 3, 5 and 6 of Article 24 of Law n. 241. The defensive logic is built around the principle of accessibility of administrative documents for the purposes of protection and translates into an aggravated burden at the evidentiary level, in the sense that the interested party bears the burden of proving that the document to which he intends to have access is necessary (or, even, strictly indispensable if it concerns sensitive or judicial data) for the care or defense of his interests” (Cons. Stato, ad. plen. 25 September 2020 n. 19).

<sup>49</sup> Cons. Stato, V, 29 April 2022 no. 3392; Cons. Stato, ad. plen., 18 March 2021 n. 4; F. Manganaro, *Evoluzione ed involuzione delle discipline normative sull'accesso a dati, informazioni ed atti delle pubbliche amministrazioni*, in *Diritto amministrativo*, 2019, 743 ss., shows that most confidentiality requirements are considered recessive when access is exercised for the defense of a legally relevant interest; S. Civitarese Matteucci, *Umano troppo umano. Decisioni amministrative automatizzate e principio di legalità*, in *Diritto pubblico*, 2019, 28: “It is quite clear that if the administration acquires a service for use in its provisional activities, the question of intellectual property becomes yielding”; J-B. Auby, *Il diritto amministrativo di fronte alle sfide digitali*, in *Istituzioni del federalismo*, 2019, 630, commenting the French law of 7 November 2016 on algorithmic governance, considers questionable precisely the fact that “it does not clearly impose the display of the source code. This shortcoming is probably explained by the desire to foresee the eventuality in which the administration does not own the algorithm: which happens when the algorithm has been built for it by an external company, on the basis of a contract that does not transfer intellectual property rights”.

guarantee in the digitization of the public contract lifecycle, is the right to the protection of personal data, which can only be briefly mentioned here.

Between the specificities related to the processing of personal data in tenders, those that emerge in automated procedures stand out. In particular, the issue of the quality of the data fed into the algorithm is exceedingly significant, since, on the basis of the “*garbage in, garbage out*” principle, it is precisely the input data, together with the processing methods, that condition the correctness of the output produced.<sup>50</sup> So much so that para. 4 of Art. 30 requires contracting Stations and awarding Bodies to take all technical and organizational measures to ensure that factors leading to inaccurate data are rectified and the risk of errors is minimized.

Indeed, it should be recalled that the principle of data quality<sup>51</sup> is specifically grounded in the European General Data Protection Regulation 2016/679 (henceforth, GDPR). Article 5 of the GDPR requires data to be adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed (minimization), accurate and, where necessary, kept up to date (accuracy), and kept in a form which permits identification of data subjects for no longer than necessary for the purposes for which they are processed (limitation of storage).

In automated procedures, the principle of *privacy by design* pursuant to Article 25 of the GDPR derives in the need to process personal data paying particular attention to the anonymization of the data contained in the *training dataset* (i.e., the set of data used in the learning phase of the *machine learning* algorithms in which the processing of the mathematical-numerical model takes place).<sup>52</sup>

In any case, when personal data are processed, access to the so-called *data lake* should be guaranteed (Art. 15 GDPR), not only in order to be able to exercise the right to rectification (Art. 16 GDPR) or deletion of erroneous data (Art. 17 GDPR), but also in order to verify the consistency of the reference case with the situation at issue and, if necessary, to request integration.<sup>53</sup>

Pursuant to Article 35.3 of GDPR, a data-protection impact assessment is “required in particular” in cases of systematic and comprehensive assessments of peoples’ personal traits based on automated processing (including profiling), resulting in decisions that have legal effects or significantly affect people (sub-paragraph (a)).

Again, as to the contents of contracting authorities’ *privacy-policy* statement pursuant to Article 13 GDPR, it will be necessary to specify any (even partial) recourse to automated decision-making processes. Moreover, at least in cases of profiling per Article 22, para. 1) and 4), it will be necessary to disclose significant information on the logic used, as well as the importance and the expected consequences of such processing for the data subject (Article 13.1.f).<sup>54</sup>

Nevertheless, in deference to the “principle of knowability and comprehensibility”, para. 3 of the Article 30 of the Code requires contracting Authorities to always communicate to economic operators significant information on the logic used by the algorithm.

As mentioned above, computer security is also a principle - or perhaps a technical rule<sup>55</sup> - to be implemented in the digital life cycle of public contracts. Given that the prevention of cyber-attacks is an increasingly-felt need in the public sector, and referring to recent and in-depth scholarship on the topic,<sup>56</sup> it is

<sup>50</sup> G. Finocchiaro, *Riflessioni su intelligenza artificiale e protezione dei dati personali*, in U. Ruffolo (ed.), *Intelligenza artificiale. Il diritto, i diritti, l’etica*, Milan, Giuffrè, 2020, 244.

<sup>51</sup> E. Carloni, *Le verità amministrative. L’attività conoscitiva pubblica tra procedimento e processo*, Milano, Giuffrè, 2011, 131, nt. 71, indicates the studies that have been able to identify about 180 data quality requirements, and those that have proposed a classification in terms of accuracy, relevance, representativeness and accessibility; more recently, also in relation to the issue of confidentiality, cf. M. Falcone, *Ripensare il potere conoscitivo pubblico tra algoritmi e big data*, Naples, Editoriale Scientifica, 2023, 96 ff.

<sup>52</sup> G. Carullo, *Decisione amministrativa e intelligenza artificiale*, in *Diritto dell’informazione e dell’informatica*, 3, 2021, 453.

<sup>53</sup> R. Cavallo Perin and I. Alberti, *Atti e procedimenti nativi digitali*, in R. Cavallo Perin and D.U. Galetta (eds.), *Il diritto dell’amministrazione pubblica digitale*, Turin, Giappichelli, 2020, 146.

<sup>54</sup> See the Guidelines on automated decision-making relating to natural persons and profiling for the purposes of Regulation 2016/679, adopted by the Article 29 Working Party (WP29) on 3 October 2017 and revised on 3 February 2018: [ec.europa.eu/newsroom/article29/it/ems/612053](https://ec.europa.eu/newsroom/article29/it/ems/612053).

<sup>55</sup> G. Carlotti, *I principi nel Codice dei contratti pubblici: la digitalizzazione*.

<sup>56</sup> S. Rossa, *Cybersicurezza e pubblica amministrazione*, Naples, Editoriale Scientifica, 2023; P.L. Montessoro, *Cybersecurity: conoscenza e consapevolezza come requisiti per l’amministrazione digitale*, in *Istituzioni*

interesting to point out, especially for its potential implications in public tenders, the possible interpretation aimed at increasing the relevance of *cybersecurity* in automated administrative procedures. Such interpretation not only requires administrations' platforms to achieve an adequate level of *cyber resilience* right from their planning (*by design*). It also requires to assess the possible impact of the adoption or non-adoption of security measures on the legitimacy of automated-administrative decisions.<sup>57</sup>

Nevertheless, it should also be noted that the networks, platforms and infrastructures that the Italian Public Administration uses in the performance of administrative functions and the provision of public services, are mostly owned by third parties, companies or groups of private companies;<sup>58</sup> a situation that obviously leads to control problems, potential capture, "lock-in" risks and likely information asymmetries.<sup>59</sup>

Concerning Cybersecurity Governance, Regulation (EC) No. 460/2004 established the European Network and Information Security Agency (ENISA, based in Athens, now also known as the European Union Agency for Cybersecurity). The first *European Union Cyber Security Strategy* was adopted in 2013 and Directive (EU) 2016/1148 (*NIS, Network and Information Security*) was passed in 2016 and transposed in Italy by Legislative Decree no. 65 of 18 May 2018. Following the adoption of Regulation (EU) 2019/881, the so-called *Cybersecurity Act*, the Decree-Law No. 82 of 14 June 2021, converted into Law No. 109 of 4 August 2021, established the Italian National Cybersecurity Agency, which supports the President of the Council of Ministers, who is "exclusively responsible for the top management and general responsibility

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*del federalismo*, 3, 2019, 783 ff.; B.N. Romano, *Il rischio di "attacchi" ai sistemi informatici tra fattispecie penalmente rilevanti, tutela dei dati ed esigenze di "buona amministrazione"*, in *Amministrativ@mente*, 3, 2021, 545 ff.; A. Renzi, *Le prospettive della cybersecurity*, in V. Bontempi (ed.), *Lo Stato digitale nel Piano Nazionale di Ripresa e Resilienza*, Rome, RomaTrepress, 2022, 171 ff.; G. Borriello and G. Fristachi, *Stato (d'assedio) digitale e strategia italiana di cybersecurity*, in *Rivista di Digital Policies*, 1-2, 2022, 257 ff.

<sup>57</sup> L. Previti, *La decisione del rischio informatico nella decisione amministrativo robotica*, in *Rivista italiana di informatica e diritto*, 2, 2022, 71.

<sup>58</sup> A. Sandulli, "Lo Stato digitale". *Pubblico e privato nelle infrastrutture digitali nazionali strategiche*, in *Rivista trimestrale di diritto pubblico*, 2021, 519.

<sup>59</sup> S. Rossa, *Cybersecurity e pubblica amministrazione*, 40 ff.

for cybersecurity policies" (Art. 2.1.a of Legislative Decree n. 82 of 2021).<sup>60</sup>

#### 4.3. Knowledgeability and comprehensibility of automated decision-making processes

Article 30 of the Code states that public procurement operations conducted by means of automation must comply with the principles of "knowability and comprehensibility". The same provision declines such principles in the sense that "every economic operator has the right to know the existence of automated decision-making processes concerning them and, if so, to receive meaningful information on the logic used".

This "right" seem, even in the vocabulary used to describe it, an application to the public-procurement sector of the aforementioned Articles 13.2.g), 14.2.g) and 15.1.h) of the GDPR, so that one wonders in what way the "information on the logic used" to which the economic operator is entitled is "significant", and therefore in compliance with the law.

Unlike trends in legal relations between private individuals and economic operators, in public contracts the pre-decisional work and process are legally relevant and contain many elements of the legal *validity* of the act. Such consideration intensifies the prominence of what we might call its *internal formant*, with respect to its content, its outward form and its communication. It also increases the need for humans to properly understand and perceive that formative process.

It is now clear that some automatic-action systems develop this formant entirely within themselves. In so-called "*black boxes*", everything leading up to the act is "opaque" (the mappings from input to output are invisible to the user); but it may also be "interpretable" (users can analyze the mappings mathematically) or

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<sup>60</sup> The cybersecurity system is actually very complex, also due to the connections with the different sides of security, as well as its global dimension; on this topic, see G. Della Cananea and L. Fiorentino (eds.), *I "poteri speciali" del Governo nei settori strategici*, Editoriale Scientifica, Naples, 2020; A. Contaldo and D. Mula (eds.), *Cybersecurity Law. Disciplina italiana ed europea della sicurezza cibernetica anche alla luce delle norme tecniche*, Pacini, Pisa, 2020; B. Carotti, *Sicurezza cibernetica e Stato-Nazione*, in *Giornale di diritto amministrativo*, 5, 2020, 629 ss.; B. Bruno, *Cybersecurity tra legislazioni, interessi nazionali e mercato: il complesso equilibrio tra velocità, competitività e diritti individuali*, in *www.Federalismi.it*, 14, 2020.

“comprehensible” (models can generate symbols or rules along with their specific output to aid in the process of understanding the logic behind the mappings being performed).<sup>61</sup>

It seems evident that from a legal point of view there can be no “meaningful information” referring to an opaque system, which remains a “black box”. Not surprisingly, nowadays’ effort is directed to establish an *Explainable AI* (XAI), an approach that aims to make automatic decisions, and the paths that led to them, knowable, explainable and comprehensible even in natural language.<sup>62</sup>

Therefore, the provisions at issue seem to strongly oppose opaque automatic public-administrative operations. Indeed, they do not limit themselves to reaffirming that contracting Stations and granting Bodies, in ensuring the digitization of the entire life cycle of contracts, operate in accordance with the principle of transparency (Art. 19.1). They also specifically provide that the data and information relating to the related administrative procedures must be managed and made available in open format (par. 3). Moreover, they provide for: automatic digital access to the information available in the databases (para. 4), “traceability and transparency of the activities carried out, accessibility of the data and information, knowability of the automated decision-making processes”, as well as accessibility of the platforms used (par. 6).

In short, information limited to the general characteristics of the model and the logic used by the software, with the specification of system requirements, decision trees, predefined models, criteria and classification structures<sup>63</sup> seems insufficient.

Such information are in any case due, given that the second paragraph of Article 30 states that, from the time they purchase or

develop digital solutions on their own, the contracting Stations and awarding Bodies must “ensure” “the availability of the source code, of the relative documentation, and of any other element useful for understanding the logic of its operation” (letter a). This “availability”, it can be assumed, must remain universal, i.e. aimed not only - obviously - at the contracting entity that uses that code (because it owns it, for having developed it in-house or for having purchased rights to use it, however denominated), but also and perhaps above all in favor of the economic operators that will see their tenders processed and compared with those of other competitors by means of these systems.<sup>64</sup>

However, it should be noted that even the Italian provision on the disclosure of the “source code”, similarly to the 2016 French provision on algorithmic governance,<sup>65</sup> seems to use cautious expressions, because when that code has been generated by an external party, its acquisition by the contracting Stations and granting Bodies may not include the transfer of the rights necessary for its external knowability.

However, on the one hand, the current legislation pushes for the development or acquisition of free or open source solutions, and considers the use of proprietary software with a license to be entirely eventual and subordinate (Art. 68 of the CAD). On the other hand, case law<sup>66</sup> and scholarship<sup>67</sup> converge in the view that, when used in administrative operations, transparency, accessibility and verifiability of systems for legal-protection purposes prevail over industrial or intellectual-property rights.

Therefore, it is confirmed and even made more rigid - as stated - the prohibition of access and disclosure in relation to the digital

<sup>61</sup> D. Doran, S. Schulz and T. R. Besold, *What does explainable AI really mean? a new conceptualization of perspectives*, ArXiv abs/1710.00794 (2017).

<sup>62</sup> A. Barredo Arrieta et al., *Explainable Artificial Intelligence (XAI): Concepts, Taxonomies, Opportunities and Challenges toward Responsible AI*, Fusion 58, C (Jun 2020), 82 ff. <https://doi.org/10.1016/j.inffus.2019.12.012>.

<sup>63</sup> So-called “model-based explanation”: S. Wachter, B. Mittelstadt and 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*, 7, 2017, 78.

<sup>64</sup> It is also worth mentioning that already Article 6 of Decree 12 August 2021 n. 148, a “regulation” laying down the modalities for the digitisation of public contract procedures in implementation of Articles 44 and 58 of the 2016 Code, prescribed special functionalities for the chronological recording of the operations performed, and of the changes that the operations introduce to the database, to allow for even automatic control of user accesses and verification of the operations performed.

<sup>65</sup> J-B. Auby, *Il diritto amministrativo di fronte alle sfide digitali*, in *Istituzioni del federalismo*, 2019, 630.

<sup>66</sup> TAR, Lazio, Rome, III-bis, 21 March 2017, no. 3742; id., 22 March 2017, no. 3769.

<sup>67</sup> For all, F. Manganaro, *Evoluzione ed involuzione delle discipline normative sull’accesso a dati, informazioni ed atti delle pubbliche amministrazioni*, in *Diritto amministrativo*, 2019, 743 ss.

platforms and IT infrastructures covered by intellectual property rights used by the contracting authority or the grantor body. The right of access to the competitor is also reaffirmed, but now it is conditional on the fact that it is indispensable for the purposes of the defense in court (Article 35, paragraph 4, letter b), no. 3, and paragraph 5), thus allowing to doubt the extension of such condition.

And it should be noted that Article 46.3 on platforms' interoperability requires the use of non-proprietary open formats both for pro-competitive reasons and for data sharing between public administrations and economic operators.

But it is necessary to consider that an automatic administrative act, especially if unilateral, must be motivated, and that the motivation must give account of "the factual assumptions and the legal reasons that determined the administration's decision, in relation to the results of the preliminary investigation" (Art. 3, Law. n. 241/1990). However it occurs that "the logical-substantial decision-making process becomes in itself a system of decisions that [...] must be seen and made transparent and open to review [...] in its various parts and in its continuity".<sup>68</sup>

Therefore, when it comes to public administration's unilateral measures, the "significant information on the rationale" must also include a justification,<sup>69</sup> which must give explanations on how the specific features of the case were assessed, the decision-making rules followed by the machine, the reference groups and the profiling classes used (so-called "subject-based explanation"<sup>70</sup>).

Thus, a merely-interpretable form of the automatic administrative act seems

insufficient to fully comply with the legal system in force<sup>71</sup>. Case law has already had the opportunity to clarify that "the mechanism by which the robotized decision is realized" must be "knowable, according to a reinforced declination of the principle of transparency which implies full knowability of a rule expressed in a language different from the legal one", with reference to its authors, the procedure used for its elaboration, the decision mechanism, including the priorities assigned in the evaluation and decision-making procedure and the data selected as relevant.<sup>72</sup>

However, it should be recalled that in procedures for the award of public contracts, the evaluation of bids is normally carried out using numerical scores. When the selection is based on the criterion of the lowest price, an automatic system is fully entitled to intervene, since even human intervention in that case merely applies a mathematical formula. Even in cases of the economically most advantageous tender, in which the judgement is expressed in figures on the individual items of evaluation, according to case law, the number constitutes sufficient justification when the items and sub-items provided by the rules of the procedure, with the corresponding scores, is sufficiently clear, analytical and articulated to adequately delimit the Commission's judgment within a minimum and a maximum. Indeed, these features make it possible to comprehend the logical procedure followed in the concrete evaluation of the individual projects in application of precise, predetermined criteria, and make it possible to check the congruity of the choice. Therefore, only in the absence of this condition is it necessary to provide a statement of reasons, in addition to the numerical scores.<sup>73</sup>

<sup>68</sup> G. Pastori, *Discrezionalità amministrativa e sindacato di legittimità*, in *Foro amministrativo*, 1987, 3168. In other terms, see Cons. Stato, VI, 13 December 2019, n. 8472, which recognizes, as a general principle in the face of automated administrative procedures "the direct specific application of Article 42 of the European Charter of Fundamental Rights [...] where it states that when the Public Administration intends to adopt a decision that may have adverse effects on a person, it has the obligation to hear the person before acting, to allow access to its archives and documents, and finally has the obligation to give the reasons for its decision".

<sup>69</sup> Cons. Stato, VI, n. 2270/2019.

<sup>70</sup> G. Malgieri and G. Comandé, *Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation*, in *International Data Privacy Law*, Vol. 7, 4 2017, 256; A.D. Selbst, J. Powles, *Meaningful information and the right to explanation*, in *International Data Privacy Law*, Vol. 7, 4 2017, 236.

<sup>71</sup> C. Rudin, *Stop explaining black box machine learning models for high stakes decisions and use interpretable models instead*, in *Nature Machine Intelligence*, 1, 2019, 206 ff.

<sup>72</sup> Cons. Stato, VI, n. 2270/2019.

<sup>73</sup> Cons. Stato, V, 29 July 2019, n. 5308; but see also Cons. Stato, III, 1 June 2018, n. 3301; Cons. Stato, V, 3 April 2018, n. 2051; Cons. Stato, V, 20 March 2017, n. 1228; T.A.R. Calabria, Catanzaro, II, 6 May 2020, n. 818. Regarding the evaluation of the qualitative elements of the technical offer with a numerical coefficient, see, recently, Cons. Stato, ad. plen., 14 December 2022 n. 16, according to which: "in the law on public contracts, tender commissioners entrusted with the task of expressing a preference or a numerical coefficient, when assessing the qualitative elements of the technical

### 5. Technological solutions, including artificial intelligence and distributed-ledger technologies: hints at administrative automation.

Many technological solutions are useful for public contracts. The de-materialization of deeds and documents (to which the expression “digitalization” refers) relates to their support, and thus the generation, circulation and preservation of them. Then we have something that could be the easier automatic administration, which has no real decision-making needs, but merely all in all simple programming codes, of a linear and purely executive type. Significantly different are the various “blockchain” techniques (to which the term “distributed register technologies” refers); according to their proponents, blockchains bring secure transactions, data immutability, the possibility of efficient verification by competitors, transparency, security, speed, accessibility and incorruptibility.<sup>74</sup>

Artificial Intelligence (AI) is significantly different from all other systems.<sup>75</sup> When it is administrative (i.e., AAI<sup>76</sup>), it becomes relevant in activities in which there is actually a decision, and therefore the administrative agent is required to choose between different

bid, may discuss those elements with each other before individually awarding points to the bids, provided that such a discussion does not lend itself to a surreptitious introduction of the principle of collegiality, with the formulation of scores pre-established ex ante, when such assessments must be, in the light of the regulatory framework in force, primarily of an exclusively individual nature”; with specific regard to the evaluation of tenders using the pairwise comparison method, the Plenary Assembly further clarified that “the assignment of scores that are all or largely identical and not differentiated by all the commissioners cancels the individuality of the evaluation which, even following the collegial evaluation, in an initial phase must necessarily maintain a distinguishable preferential autonomy in the comparison between the individual tender and the others so as to ensure the assignment of coefficients that are not merely repetitive and the very functioning of the pairwise comparison”.

<sup>74</sup> For all, see A. Botto and S. Castrovinci Zenna, *La blockchain negli appalti pubblici, come utilizzarla: i vantaggi*, in *agendadigitale.eu*; of course, there is no shortage of doubts: among others, see P. Otranto, *Decisione amministrativa e digitalizzazione della p.a.*, in *www.Federalismi.it*, 2, 2018.

<sup>75</sup> According to L. Floridi, *Etica dell'intelligenza artificiale. Sviluppi, opportunità, sfide*, Raffaello Cortina Editore, 2022, 22 “artificial intelligence is the science that allows a machine to do things that require intelligence when performed by humans”.

<sup>76</sup> P. Forte, *Diritto amministrativo e data science. Apunti di Intelligenza Amministrativa Artificiale (AAI)*.

options, and adopt the administrative measure which, as a result, is discretionary.

In short, to be rigorous, there are well-founded reasons to distinguish algorithms from *machine learning* and artificial intelligence,<sup>77</sup> as well as from robotics,<sup>78</sup> even though they are all procedures structured in such a way whereby the machine detects an input and works on it to transform it into an output.

#### 5.1. Automatic non-decision-making administration

It is easy to understand how quick and all in all easy it is to switch from analogue to automated administrative activity for procedures with a mandated outcome,<sup>79</sup> i.e. for acts that do not depend on any rating, judgement, or evaluative option.<sup>80</sup> In these

<sup>77</sup> Cf. Cons. Stato, 25 November 2021, n. 7891, with reference to the algorithm: “the notion, when applied to technological systems, is inescapably linked to the concept of automation, i.e. systems of action and control capable of reducing human intervention. The degree and frequency of human intervention depends on the complexity and accuracy of the algorithm that the machine is called upon to process. What is different is artificial intelligence. In this case, the algorithm contemplates *machine learning* mechanisms and creates a system that does not merely apply software rules and pre-set parameters (as the “traditional” algorithm does) but, on the contrary, constantly elaborates new inference criteria between data and makes efficient decisions on the basis of these elaborations, according to a process of machine learning”. For a summary of the differences between those concepts, see P. Bonini, *Algoritmi, Intelligenza artificiale e machine learning nei processi decisionali pubblici*, in IRPA, 2021, <https://www.irpa.eu/algoritmi-intelligenza-artificiale-e-machine-learning-nei-processi-decisionali-pubblici/>. G. Sartor and F. Lagioia, *Le decisioni algoritmiche tra etica e diritto*, in U. Ruffolo (ed.), *Intelligenza artificiale - il diritto, i diritti, l'etica*, Milan, Giuffrè Francis Lefebvre, 2020, 64: “The concept of algorithm is often used to identify applications of artificial intelligence, for instance through phrases such as “algorithmic decisions”. The concept of algorithm actually has a more general character because it includes any sequence of unambiguously defined instructions to efficiently perform a task, in particular, but not only, through mathematical calculations [...] Obviously, not all algorithms concern or deal with artificial intelligence, but all artificial-intelligence systems - like any computer system - presuppose the use of algorithms”.

<sup>78</sup> See European Parliament Resolution of 16 February 2017 with recommendations to the Commission concerning civil law rules on robotics: [www.europarl.europa.eu/doceo/document/TA-8-2017-0051IT.html](http://www.europarl.europa.eu/doceo/document/TA-8-2017-0051IT.html)

<sup>79</sup> L. Viola, *L'intelligenza artificiale nel procedimento e nel processo amministrativo: lo stato dell'arte*, in *Il Foro amministrativo*, 9, 2018, 5.

<sup>80</sup> M.D. Angelosante, *La consistenza del modello dell'amministrazione “invisibile” nell'età della tecnificazione: dalla formazione delle decisioni alla responsabilità per le decisioni*, in S. Civitarese Matteucci, L.

cases, human intervention could already be considered substantially superfluous. The adoption of the act depends on data and measurements that are undebatable, undisputable, and unassessable, and even if automatic mechanisms are used, the consequent determination is not so much a decision, but a mere behavior of obedience to a command. The produced effect is predefined directly by the norm (a scheme that in the legal sciences has been noted as norm-fact-effect<sup>81</sup>).

As it has long been understood, in fact, there is a clear analogy between legal schemes of this type and simple algorithmic programs, those with the “if/then” provision. The behavior of such machines is merely compulsory and follows instructions (antecedents, criteria of relevance, evaluation metrics, objectives, etc.) that come entirely from the program, and thus from humans.<sup>82</sup>

On the administrative-law front, however, the most recent studies have helped us to understand that in many of these cases there is much less compulsion than it seems, since even when there is a certain, easily determinable, non-disputable element of the case, it must frequently be combined with one or more, instead, vague, or indeterminate elements.<sup>83</sup>

This is not a purely theoretical, abstract question.

Just think, for example in the public-contracts context, of the well-known issue of automatic exclusions of anomalous bids, deemed incompatible with the European Normative by the Court of Justice<sup>84</sup> (and also the subject of a recent infringement notification to Italy by the European Commission), and of the consequent

amendments made on several occasions in recent years to the pertinent Italian Law, that have derived in extensive jurisdictional diatribe.<sup>85</sup>

Another example is the “on-off” evaluation system, i.e. the ‘presence or absence’ of a given element of the offer that can be expressed in objective or numerical terms, which is also considered compatible with the award criterion of the most economically-advantageous offer.<sup>86</sup>

Finally, it should be noted that the Code (already in its previous version, in Art. 80, today Art. 94) provides for “automatic grounds for exclusion” that are sometimes grounded in hardly-debatable circumstances, other times in evaluative variables.

Moreover, for this type of act, the legal regime of justification even in the human sphere is affected by the peculiar structure of the case. The case law is quite settled in deeming a ‘justification’ sufficient in these cases, an so to make the assumptions explicit and give account of them, with references to factual elements and binding rules.<sup>87</sup> This task is obviously easier for an automatic system, thereby making it even more easily and better suited to produce a justified act complying with the legal parameters.

For this reason we usually define *constrained* those acts that actually allow a machine to go through the entire process of forming the determination and producing the final legal effect. Moreover, it is no coincidence that when the award is made on the criterion of the lowest price or cost, and the choice has no discretionary grounds, the “human” evaluation of the tenders is carried out in a “even monocratic” tender board, composed of staff of the contracting station. Whereas cases of economically most advantageous tenders, as will be seen, use a selection board (Art. 93 of the Code).<sup>88</sup>

Torchia (eds.), *A 150 anni dall'unificazione amministrativa italiana. La tecnificazione*, vol. IV, *La tecnificazione*, Florence, Florence University Press, 2016, 157.

<sup>81</sup> For all, see E. Capaccioli, *Disciplina del commercio e processo amministrativo*, in *Studi in memoria di E. Guicciardi*, I, Padova, 1978, 310 ss.; A. Orsi Battaglini, *Attività vincolata e situazioni giuridiche soggettive*, in *Rivista trimestrale di diritto processuale civile*, 1988, 29 ff., now in *Id.*, *Scritti giuridici*, Milan, Giuffrè, 2007, 1249.

<sup>82</sup> This was the first reading of the phenomenon; for all, see A. Masucci, *L'atto amministrativo informatico. Primi lineamenti di una ricostruzione*, Naples, Jovene, 1993, 25 ff.

<sup>83</sup> Among others, and recently, see F. Follieri, *Logica del sindacato di legittimità sul provvedimento amministrativo. Ragionamento giuridico e modalità di sindacato*, Padua, Wolters Kluwer Cedam, 2017, spec. 446 ff.

<sup>84</sup> Judgment of 17 May 2008, C-147/06, C-148/06.

<sup>85</sup> Among many others, Council of State, Opinion 30 March 2017, n. 782; *id.*, V, 30 October 2017, n. 4969; Tar Calabria, Reggio Calabria, 11 February 2019, n. 119; Tar Piemonte, II, 18 April 2020, n. 240; Tar Puglia, Lecce, 22 January 2021, n. 113; Tar Lazio, Rome, Section I, 19 February 2021, n. 2104.

<sup>86</sup> Cons. Stato, VI, 13 August 2020, n. 5026.

<sup>87</sup> Cons. Stato, II, 12 March 2020, n. 1765; *Id.*, V, 20 August 2015, n. 3953.

<sup>88</sup> But see already Art. 21 of Prime Ministerial Decree n. 148 of 12 August 2021, and Cons. Stato, Advice no. 1940 of 26 November 2020.

## 5.2. Artificial Administrative Intelligence (AAI): algorithmic discretionary decision-making

Of course, accepting automation of the actual administrative decisions (*i.e.*, those taken under the broad area of discretion) is more challenging.

However, it must be considered that *human* administrative decision-making has long since freed itself from the idea of authority as a sufficient reason for legitimacy and reliability. They must also express a “technical capacity to choose and decide”,<sup>89</sup> and in all contemporary discretionary decisions, even those concerning public contracts, political guidelines remain at the margins of discretion, placed in different and prior acts.<sup>90</sup> Indeed, it is not by chance that properly the administrative decision, even in public contracts, is entrusted to bodies without political responsibility.

It is well known that contracting Stations and awarding Bodies, with specific acts, adopt the decision to contract, and identify the essential elements of the contract as well as, above all, the criteria for the selection of economic operators and tenders (Art. 17 of the Code, as before Art. 35 of Legislative Decree n. 50/2016). The structure of these instructions of conduct<sup>91</sup> surely derives from the relevant principles, standards, guidelines and directives coming from the bodies of political guidance. But it also stems from specific criteria, measures of judgement, declination of evaluative weights (“sub-criteria and sub-weights or sub-points” in the lexicon of Art. 108.7 of the Code), in short, “self-limits”(auto-limiti, in Italian<sup>92</sup>) in relation to

the specific operation. Thus, we might say that, even for human decision-making, there is a decision-making design, made up of guidelines set forth by standards, directives, general criteria, objectives, etc. All of which must be contemplated as rules in the discretionary evaluation established before making the cognitions, the evaluations, and - obviously - adopting the decisions. Let us take, for example, the economic score, which “may be modulated according to criteria of proportionality or progressiveness, provided that they are transparent and intelligible” also to allow competitors to identify the “inflection point” of their offer, beyond which it is not convenient.<sup>93</sup>

Now, one cannot fail to note that this technique recalls the functioning of an algorithm in its decision-making process, which, as we have seen, caselaw considers a ‘procedural rule’, the result of actual intentional acts, to convoy to organizational decisions, meaning assumptions on which resulting (considered actuative and consequential) behaviors are based.<sup>94</sup>

From another point of view, these operations properly consist of a multi-criteria approach, whereby a decision-making need is broken down into simple factors that can be analyzed separately (the criteria), orienting the choice towards a “justified” dimension.<sup>95</sup> Developments in knowledge and techniques in this regard now allow the use of fuzzy linguistic representation models and corresponding computational models to

*tali*, in *Il codice dell'azione amministrativa*, M.A. Sandulli (ed.), Milan, Giuffrè, 2017, 1154. The recognition of the regularity of this reality of the decision-making process has allowed for the elaboration of the theoretical description that goes by the name of “reduction to zero” (*Reduzierung auf Null*), or also of “constraint in concreto”, on which see G. Manfredi, *Doverosità dell'annullamento vs. annullamento doveroso*, in *Diritto processuale amministrativo*, 2011, 316 ff., in comment on sent. Trga, Trento, I, 16 December 2009, n. 305. The hypothesis has now a normative declination in art. 31, para. 3 of the Code of Civil Procedure, and in this regard see Cons. Stato, VI, 25 February 2019, n. 1321.

<sup>93</sup> Cons. Stato, V, 28 October 2019, n. 7389.

<sup>94</sup> Cons. Stato, VI, 2 October 2017; so much so that, then, the tweaking of the algorithm at the operational stage is considered invalid: see Tar Campania, Napoli, V, 20 April 2018, n. 2639.

<sup>95</sup> D. Falcone, F. De Felice and T.L. Saaty, *Il decision making e i sistemi decisionali multicriteriali*, Milan, Hoepli, 2013; for the application of such methods to public contract selections see G. Marcarelli and A. Nappi, *L'offerta economicamente più vantaggiosa e l'utilizzo dei metodi multicriteriali nelle gare d'appalto pubblico*, in *Amministrativ@mente*, 7-8, 2017, 1 ff.

<sup>89</sup> Thus L. Torchia, *Teoria e prassi delle decisioni amministrative*, in *Diritto amministrativo*, 1, 2017, 1 ff.

<sup>90</sup> G. Palma, *Riflessioni in tema di scomposizione analitica della ricostruzione teorica della discrezionalità amministrativa: un assaggio*, in *Amministrativ@mente*, 2013, 1, speaks of a “decomposition” of discretion into “the intellectual moment of the interpretation of the law to be implemented, the moment of the weighing of the interests involved (public and private), the moment of the decision and so on”.

<sup>91</sup> A. Police, *La predeterminazione delle decisioni amministrative*, 154, which recalls I. Mehl, *L'informatique, la Connaissance et l'Action*, in Bull. I.I.A.P., October-December 1968, 12 et seq.; but see also J. A. Robinson, R.R. Majak, *La teoria della formazione delle decisioni*, in D.J. Charlesworth (ed.), *Teoria e metodi in scienza politica*, New York 1967, trad. it. Bologna, il Mulino, 1971, 245, where the intellectual, social and semi-mechanical aspects in decision formation are distinguished.

<sup>92</sup> See, e.g., R. Giovagnoli, *I vizi formali e procedimen-*



“quantify” qualitative data, even using natural-language expressions (“*computing with words* – CW”<sup>96</sup>).

Therefore, the guidelines and constraints of the traditional administration (now expressly mentioned in Article 2.3 for the definition of officers’ administrative liability) may well be used in the construction of a decision-making algorithm, and thus constitute limits and guidelines for *deep learning* operations. This will favor the autonomous acquisition and processing of artificial-intelligence systems, which will be facilitated - according to the already mentioned phenomenon of *garbage in, garbage out* - by the use of digital procurement platforms, of the National Database of Public Contracts (art. 23 of the Code), of the virtual file of the economic operator (art. 24), of the electronic information modeling for the construction and infrastructure (art. 45), and in short, by the availability of digital materials the AAI system could access, at every stage of the life cycle (for example, the modelling information referred to in Article 43).

In short, on a purely legal level, the use of artificial-intelligence systems in public procurement could be seen as a progressive development of the decision, a real path of evolutionary exercise of discretion that turns into a decision, structurally not unlike human decisions.<sup>97</sup>

These models can in fact overlap with the refined paths to screen human discretionary decisions, that we are increasingly standardizing for purposes of legal validity. What we refer to with the canon of *logicality*, *i.e.*, the straightforwardness that connects the antecedents of investigations to the decisions, and which is an indispensable element of *discretion*. So, we seem to be able to say that even human decisions follow logics that can be used by models, operators, connectors, tools, techniques and metrics that can be used by machines and non-human systems.<sup>98</sup> In a

word, decision administration, in itself, can be seen as an algorithm.

Thus, even in these cases, access to the decision-making elements and the possibility of explaining the consequentiality and non-abnormality of the decision in relation to the assumptions and their treatment is necessary to assess the decision’s legal validity.<sup>99</sup> Therefore, similarly to other cases of algorithmic administration, the real obstacle for artificial administrative intelligence (AAI) remains the “black box” and the comprehensibility of the decision-making path. The rest is left to the reliability of the automatic decision, which derives from the reliability of its readings of reality, of the regulatory provisions and of the leads received *by design*.

Understandably then, the Code contemplates artificial intelligence among the possible “technological systems” for public procurement (Art. 30.1 of the Code). However, for decisions involving discretionary powers (for example, selections on the basis of the economically most advantageous bid, art. 51, art. 93, and for those in special sectors, art. 167), the Code continues to provide for a Commission, which although operating in line with the principle of digitalization and evaluations through digital procurement platforms, and is still composed by humans.

The same reasons for caution also explain the approach the regulation takes in the use of methods and tools of digital information management of constructions (*Building Information Modelling* - BIM<sup>100</sup>), mandatory from 1 January 2025 for new construction works and for interventions on existing constructions for amounts exceeding one million euro (with the exception of ordinary and extraordinary maintenance works: see art. 43 of the Code).

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reasoning, and therefore also applicable to discretionary activity; in such cases, the discretionary power of the administration does not disappear, but moves upstream through the predetermination of the criteria used, which the computer must comply with”.

<sup>99</sup> C. Giurdanella and E. Guarnaccia, *Elementi di diritto amministrativo elettronico*, Matelica, Halley, 2005, 42, speak of “electronic motivation generated, precisely, through the automatic retrieval, linking and juxtaposition of norms and data”.

<sup>100</sup> On the BIM model, before the Code, see art. 23, paragraph 13, of Legislative Decree n. 50/2016, Ministerial Decree no. 560/2017, art. 48, paragraph 6 of Legislative Decree n. 77/2021, and the consequent Ministerial Decree n. 312/2021.

<sup>96</sup> M.A. Basaran, B. Simonetti and A.A. Basaran, *Quantification of qualitative assessments using computing with words: in framework of fuzzy set theory*, in *Soft Computing*, 2019.

<sup>97</sup> V. Esposito, A. della Sala, M. G. Olivieri, M. Squillante and G. De Liso, *L’evoluzione del controllo organizzativo: l’approccio multi-criteriale alla valutazione delle performance*, in *Decidere nella complessità*, M. Squillante (ed.), Edicampus, Rome, 2017, 68.

<sup>98</sup> Not differently V. Brigante, *Evolving pathways of administrative decisions*, 161: “constant technological development could lead to the reproduction of human

In short, the legislation seems to be laying down what in technological jargon (but also elsewhere) is called a *sandbox*, a context of controlled experimentation in which a system can be tested, before allowing its widespread use. The legislation previously established gradual implementation, taking into account that BIM does not only affect digitization, and the enhancement of automatic decision-making, but also the entire life cycle of the works, including maintenance and eventual decommissioning. BIM can therefore also be used outside the mentioned cases, possibly providing for a bonus score in the tender, as long as one is able to handle it. Indeed, the Code provides (in Annex I.9) numerous technical indications to ensure uniformity of use, and organizational measures relating to the necessary tools and staff training.

Coming back to the general argument, thanks to such (and others) experimental trials, in the not-too-distant future we can expect that also the path making algorithmic decision-making knowable, reliable, justifiable, comprehensible, efficient, and capable of providing reasons accessible to anyone, should also render it little, very little debatable. One can even imagine the scenario in which automatic procurement would be preferred and invoked, more strongly than the human one, as a guarantee of legal validity.

### 5.3. Non-discrimination

The implementation of controlled experimentation practices, insofar as they purport knowable and clearly justifiable algorithmic decision, also constitutes one of the options that can be usefully pursued for the implementation of the principle of non-discrimination of the automated decision. Indeed, as will be noted, it is precisely the transparency and comprehensibility of the pre-decisional treatment that makes it possible to avert the discriminatory character of the output produced.

On this point, however, it must be premised that such principle is first of all not easy to describe, given that, clearly, every choice and, thus, every discretionary decision - at whatever level adopted - constitutes, in itself, a sort of "discrimination". Therefore, what must be avoided is what we shall say, *unfair* discrimination, which according to Article 30, para. 4, with respect to natural persons is considered such when it is taken (one should perhaps say, unreasonably) on the

mere basis of nationality, ethnic origin, political opinions, religion, beliefs, trade union membership, somatic features, genetic status, state of health, gender or sexual orientation. The issue appears to be different with regard to economic operators, for whom it is not easy to determine what kind of protection these provisions envisage, and it is no coincidence that it is not indicated what discrimination consists of for legal persons.

It is, however, undisputed that data controllers must put in place appropriate technical and organizational measures to prevent discriminatory effects (Art. 30. 2.c of the Code), which in this case appear to relate to proper market access (see Art. 3). So, on the one hand, it is clear that such measures should prevent or mitigate the so-called *biases*,<sup>101</sup> which we now know may be connected with the use of automated systems not only because of the inevitable presence of the "hand of the programmer",<sup>102</sup> but also because of the errors that may occur during the autonomous learning phase of *machine-learning* algorithms, those that may occur during the design of the algorithm, as well as possible distortions of the *dataset* used.<sup>103</sup>

But on the other hand, the legal situations

<sup>101</sup>P. Delvecchio and V. Bignoli, *Le responsabilità amministrative da algoritmo e intelligenza artificiale. La responsabilità da provvedimento algoritmico sia ai fini del risarcimento del danno in sede civile che in sede contabile come responsabilità erariale*, in A. Pajno, F. Donati and A. Perrucci (eds.), *Intelligenza artificiale e diritto: una rivoluzione?* Bologna, Il Mulino, 2022, 324.

<sup>102</sup> See, e.g., the "White Paper on Artificial Intelligence- A European Approach to Excellence and Trust", 19 February 2020; F. Costantino, *Rischi e opportunità del ricorso delle amministrazioni alle predizioni dei big data*, in *Diritto pubblico*, 1, 2019, 1; B. Raganelli, *Decisioni pubbliche e algoritmi: modelli alternativi di dialogo tra forme di intelligenza diverse nell'assunzione di decisioni amministrative*, in *www.Federalismi.it*, 22, 2020, 248; M.C. Cavallaro and G. Smorto, *Decisione pubblica e responsabilità dell'amministrazione nella società dell'algoritmo*, in *www.Federalismi.it*, 6, 2019, 19.

<sup>103</sup> These risks have been made glaringly obvious at the supranational level by several cases, including - just to name one - the well-known COMPAS case, named after the algorithm that, used by the US courts to signal the danger of recidivism in the commission of certain crimes, reiterated prejudicial discrimination against black people. In this regard, see M. Falcone, *Bisogni conoscitivi delle amministrazioni e principio di legalità: quale predeterminazione delle scelte conoscitive pubbliche?*, in *Rivista italiana di informatica e diritto*, 2, 2022, 61; D. Simeoli, *L'automazione dell'azione amministrativa nel sistema delle tutele di diritto pubblico in Intelligenza artificiale e diritto: una rivoluzione?*, 635; G.G. Pignatiello, *Il contrasto alle discriminazioni algoritmiche: dall'anarchia giuridica alle Digital Authorities?*, in *www.Federalismi.it*, 2021, 164 ff.

involved remain linked to the exercise of the unilateral capacities of the contracting authorities, and it is not by chance that, up to now, it has mainly been a matter for administrative caselaw.<sup>104</sup>

Without prejudice to the fact that the unfairly discriminatory nature of the algorithmic solution could emerge at the time of the post-hoc control and of validation of the final acts by the human decision-maker, or in any case *ex post*, the incidence of the error on the reliability of the *output* can be averted even *ex ante*, through a rigorous application of the principles of participation and transparency. Indeed, they would allow to identify any flaws in the design or – desirably – the logical *procedure* followed by codes programmed in non-deterministic terms. Equally crucial is careful control over the quality, correctness and variety of the data, both those collected for the coding of the algorithm's "terms", and those subsequently selected autonomously by the machine as significant and used by the algorithm to process the *output*.<sup>105</sup>

Therefore, particular attention must be paid precisely to the phase of selecting and compiling *input* data, which could be inaccurate, statistically unrepresentative or unbalanced, and could thus vitiate the decision-making outcome.<sup>106</sup> Once again, it is no coincidence that Article 30.4 requires contracting Stations and awarding Bodies to adopt technical and organizational measures to ensure that factors leading to inaccurate data are rectified, that the risk of errors is minimized, as well as to prevent discriminatory effects.

The importance of data quality is also demonstrated by the recent proposal for an EU AI regulation which, with regard to high-risk AI systems, requires training, validation and testing datasets to be relevant, representative, error-free and complete and to possess the appropriate statistical properties. To this end, "appropriate data governance and

management practices" are suggested, covering prior assessment of the availability, quantity and adequacy of the necessary datasets, possible biases, gaps or deficiencies, etc.<sup>107</sup>

#### **5.4. Non-exclusivity of the algorithmic decision**

Article 30.3.b) of the Code expressly enshrines the principle of non-exclusivity of the automated decision, whereby "in any event, there is a human input into the decision-making process capable of controlling, validating or refuting the automated decision".

It is therefore immediately clear that the provision covers not only the decisional phase of the proceedings, the one in which the decision matures, but also the previous ones since it is in these preceding phases that the decision-making elements are determined. In automatic procedures, the software is approved, the completeness and reliability of the data to be processed must be ensured, and the protection of the right to personal data protection must be guaranteed.<sup>108</sup>

Well, for the first time, a principle already in force - albeit with some peculiarities - in the European legal system is positivized also at the national level. In fact, Article 22 of the GDPR recognizes the data subject's "right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him [or her] or which similarly significantly affects his [or her] person". This European norm, in par. 2, provides, however, for three exceptions, relating, respectively, to cases in which the decision: 1) is necessary for the conclusion or performance of a contract between the data subject and the data controller; 2) is authorized by the law of the Union or of a Member State; 3) is based on the explicit consent of the data subject.

<sup>104</sup>On the basis of European legislation, in particular Recital 71 GDPR: see, e.g., Cons. Stato, VI, 13 December 2019 n. 8472; VI, 4 February 2020 n. 881.

<sup>105</sup> On the latter distinction, L.M. Azzena, *L'algoritmo nella formazione della decisione amministrativa: l'esperienza italiana*, in *Revista Brasileira de Estudos Políticos*, 123, 2021, 513.

<sup>106</sup> G. Avanzini, *Decisioni amministrative e algoritmi informatici*, Naples, Editoriale Scientifica, 2019, 22 ff.; M. Macchia, *Pubblica amministrazione e tecniche algoritmiche*, in *DPCE online*, 1, 2022, 317 ff.

<sup>107</sup> See Art. 10 of the text approved by the European Parliament on 12 March 2024; in this regard, see E. Carloni, *Qualità dei dati, big data e pubblica amministrazione*, in *L'amministrazione pubblica con i big data: da Torino un dibattito sull'intelligenza artificiale* R. Cavallo Perin (ed.), Turin, University of Turin, 2021, 129; L. Floridi, *The European Legislation on AI: A Brief Analysis of Its Philosophical Approach*, J. Mökander, M. Zirosi (eds.), in *The 2021 Yearbook of the Digital Ethics Lab*, Springer, Cham., 2022, 1 ff.

<sup>108</sup> V. Neri, *Diritto amministrativo e intelligenza artificiale: un amore possibile*, in *Urbanistica e appalti*, 5, 2021, 581 ff.

Moreover, in the second of the aforementioned cases the authorizing rule provides for “appropriate measures to protect the rights, freedoms and legitimate interests of the data subject”. Meaning that in cases under 1) and 3), the data controller must adopt “appropriate measures to protect the rights, freedoms and legitimate interests of the data subject, at least the right to obtain human intervention by the data controller, to express his [or her] opinion and to contest the decision” (Art. 22.3 of GDPR).

Recital 71 of that Regulation further specifies that “such processing should be subject to appropriate safeguards, which should include the provision of specific information to the data subject and the right to obtain human intervention, to express one’s opinion, to obtain an explanation of the decision reached after such assessment and to contest the decision”.

Moreover, the following Article 23 of GDPR adds that the right not to be subjected to a fully automated decision may be limited provided that such limitation “respects the essence of fundamental rights and freedoms and is a necessary and proportionate measure in a democratic society” and it is aimed at safeguarding one of the public interests listed in the provision (national security, defense, public security, prevention, investigation, detection and prosecution of criminal offences, etc.).<sup>109</sup>

From the European regulatory framework briefly described, scholarship has drawn the conclusion that, on the one hand, the regulations set forth in the GDPR do not apply to decisions that do not involve the processing of personal data.<sup>110</sup> And on the other hand,

<sup>109</sup> The “Guidelines on automated decision-making relating to natural persons and profiling for the purposes of Regulation 2016/679” already referred to, stated that: “in order to have human involvement, the data controller must ensure that any control of the decision is meaningful and does not constitute a mere token gesture. The check should be made by a person who has the authority and competence to modify the decision. In the context of the review, that person should consider all relevant data”.

It should also be noted that Annex 1 of Guidelines suggests good practices that the data controller should take into account when making decisions based solely on automated processing, where this is allowed; for example: regular quality-assurance checks of systems to ensure that individuals are treated fairly and are not discriminated against; tests on algorithms to show that they are actually working as intended, etc.

<sup>110</sup> As, on the other hand, could well be the case in the field of public contracts, for example when drafting the

that the clarification set in Article 22.2.b) and Article 23 of GDPR, suggest the possibility of national legislative interventions that - under the conditions set forth in those provisions - would provide for the full automation of procedures, in light of the opportunity to refer to the Member States for the assessment of the “fair balance between fundamental rights and the requirements linked to the general interest of society”.<sup>111</sup>

As argued by scholarship, the application of constitutional principles - in particular Articles 3, 24 and 97 of the Italian Constitution - as well as Article 6 C.E.D.U., has led administrative caselaw to draw even stricter limits than those set by European legislation.<sup>112</sup>

In fact, the Italian Council of State,<sup>113</sup> reasoning that “recourse to the algorithm must be correctly framed in terms of an organizational module, a procedural and investigative tool, subject to the verifications typical of any administrative procedure”, excluded that the administrative decision may disregard the human control on the logic and legitimacy of the solution proposed by the algorithm. Such control is necessary to guarantee the imputability of the decision to the body holding the power and, thus, also the applicability of the general rules on liability.<sup>114</sup>

call for tenders: S. Civitarese Matteucci, *Umano troppo umano*, 27.

<sup>111</sup>A. Masucci, *L’automatizzazione delle decisioni amministrative algoritmiche fra big data e machine learning. Verso l’algocratic governance?*, in *Diritto e processo amministrativo*, 2, 2022, 287; on the point, see also S. Civitarese Matteucci, *Umano troppo umano*, 23 ss.; A. Simoncini, *Profili costituzionali della amministrazione algoritmica*, 1174: “euronational law, therefore, beyond statements of principle, is much more favourable to the use of automatic decisions than it may seem; and in this it seems closer to the orientation of the Council of State than to that of the Tar, which, on these issues does not admit exceptions”. The proposed EU Regulation on Artificial Intelligence, with specific regard to high-risk AI systems, also requires human oversight in order to prevent or minimize risks to health, safety and fundamental rights (Art. 14); in particular, Recital 48 clarifies that “high-risk AI systems should be designed and developed in such a way as to enable natural persons to monitor their functioning”.

<sup>112</sup>A. Simoncini, *Algorithmic Digital Administration. Il quadro costituzionale*, in R. Cavallo Perin and D.U. Galletta (eds.), *Il diritto dell’amministrazione pubblica digitale*, Turin, Giappichelli, 2020, 29.

<sup>113</sup> Cons. Stato, VI, 13 December 2019 n. 8472; VI, 4 February 2020 n. 881; but see also Tar Lazio, Rome, III, 15 April 2021 n. 4409.

<sup>114</sup> D. Marongiu, *L’intelligenza artificiale “istituzionale”: limiti (attuali) e potenzialità*, in *European Review*

Article 30.3.b) of the Code confirms this tendency and seems to establish an actual right to human intervention even when there is no matter of personal data. In that case the work carried out automatically could be used in the guise of an investigative support, not unlike the contributions acquired by the human-process manager, and thus with a so-called HITL (human-in-the-loop) approach,<sup>115</sup> since the final decision would in any case remain in the hands of a human.

Of course, as pointed out above, in the light of the studies conducted on the subject, full application of the principle of non-exclusivity could be compromised by possible human reactions to the results produced and proposed by artificial intelligence. Those would be attributable, in essence, to behavior induced by cognitive *bias*, either due to an excess of confidence placed in artificial intelligence (so-called automation bias), or, on the contrary, to the most varied prejudicial reasons (algorithm aversion), or even just because of the so-called “illusion of validity” on the apodictic superiority of human reasoning. Not to mention the so-called *confirmation bias*, which leads one to consider the results of artificial intelligence (and not only artificial intelligence) valid only when they confirm the intuition or conviction of the human agent.<sup>116</sup>

Nonetheless, the guarantee of the human in the loop is confronted with the problem to comprehend the decision-making process followed by the algorithm, in particular by machine learning systems, characterized by a still unresolved transparency deficit.<sup>117</sup> Otherwise the guarantee of human control would be limited to cases in which, regardless of the knowability of the process followed by the algorithm, the outcome is in itself manifestly abnormal and unreasonable.

The feasibility of effective human control therefore presupposes that the Administration is equipped with skills and professionalism

capable of understanding the operating mechanisms of the algorithm and, if necessary, refuting its processes as well as its results. Crucial will therefore prove the organizational choices adopted in the implementation of Article 19.5 of the Code, which, outlining the principles to safeguard digitization, requires contracting authorities to ensure the training and continuous update of their staff.<sup>118</sup>

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of *Digital Administration & Law - Erdal*, 1, 2020, 52-53.

<sup>115</sup> P. Forte, *Diritto amministrativo e data science: appunti di intelligenza amministrativa artificiale (AAI)*, in *P.A. Persona e Amministrazione*, 1, 2020, 295.

<sup>116</sup> N. Rangone, *Intelligenza artificiale e pubbliche amministrazioni: affrontare i numerosi rischi per trarne tutti i vantaggi*, in *BioLaw Journal - Rivista di BioDiritto*, 2, 2022, 485-486.

<sup>117</sup> B. Marchetti, *La garanzia dello human in the loop alla prova della decisione amministrativa algoritmica*, in *BioLaw Journal - Rivista di BioDiritto*, 2, 2021, 377 ff.

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<sup>118</sup> On the other hand, the fact that the implementation of digital competences of public personnel cannot be disregarded is expressly stated not only by the CAD (Art. 13, para. 1-bis), but also, with specific reference to the use of AI in the public sphere, by the Strategic Program Artificial Intelligence 2022-2024, which identifies among the objectives to be pursued precisely the strengthening of AI competences in public administration.

