

PUBLIC ADMINISTRATION AT THE BOUNDARIES
Studies and Perspectives on an Evolving Public Law

N. 4

Eva M. Menéndez Sebastián

FROM BUREAUCRACY TO ARTIFICIAL INTELLIGENCE

THE TENSION BETWEEN EFFECTIVENESS
AND GUARANTEES

with a preface by
Angelo Giuseppe Orofino



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PREFACE

1. A revolution is taking place that is affecting all areas of social and economic life as well as the world of law.¹

The latter cannot help but be confronted with the digital earthquake that is sweeping our societies. Although it is slower to adapt to change, partly because of the rigidity that tends to characterise its structure and hence its evolution.²

What has been described as the fourth industrial revolution is underway. And like its predecessors, the current revolution is also affecting the structures of law.³

Given the greater dynamism that traditionally characterises the private sector the changes are more evident in the world of civil or commercial law. The latter is always more ready to take advantage of the opportunities offered by technological evolution than is the case of the public sector. This sector has traditionally been plastered along the lines of a Weberian-style administration that sees respect for tradition as a means of reassuring and defending its prerogatives and is, on the other hand, afraid of change.

This has fuelled a widespread ideological prejudice against change,

¹ J. Rifkin, *The Third Industrial Revolution. How Lateral Power is Transforming Energy, the Economy, and the World*, Palgrave Macmillan, London, 2011.

² M. Fuertes, *Metamorfosis del Estado. Maremoto digital y ciberseguridad*, Madrid, Marcial Pons, 2022

³ E De Simone, *Storia economica. Dalla rivoluzione industriale alla rivoluzione informatica*, 5th ed., Franco Angeli, Milan, 2006.

which is leading many to reject any idea of confrontation with new technology.

But as we know, revolutions impose themselves forcefully, overwhelming everything that tries to oppose them. Therefore, it is not possible to enter history backwards, refusing to dialogue with the progress that manifests itself in all sectors of society.

Therefore, administrations must learn to live with technological evolution, making the most of the possibilities it offers. This is also necessary in order to meet the need for efficiency in the performance of public functions and the provision of various services, which citizens increasingly demand to be satisfied by public bodies.⁴

2. The process of administrative transformation therefore implies the necessary use of the new means made available to administrations.

Their use is fundamental insofar as it allows the relationship of citizenship to take place according to new channels and, therefore, according to new forms and perspectives so that, also by virtue of the collaborative contribution possible thanks to the new tools of transmitting and processing information.

However, these are powerful means that must be used with care and awareness, and taking into account the dangers that their use entails.

This requires new organisational structures and new professional skills within administrations, capable of managing the processes that take place through the tools offered by innovation.

But it also requires a legal and regulatory framework capable of carefully regulating the use of the tools that technological evolution places at the service of administrations.

However, given the difficulty of regulating a sector so obviously influenced by technological modernisation, it is necessary on the

⁴ E. M. Menéndez Sebastián, *De la función consultiva clásica a la buena administración: Evolución en el Estado social y democrático de Derecho*, Madrid, Marcial Pons, 2021.

one hand to resort to soft law instruments and on the other hand to make extensive reference to legal principles that, with their fluid and enveloping structure, lend themselves to the task of adapting the legal system to the evolutionary instances that arise over time as a result of social, economic and technical transformations.

Among these, a particular reference is evidently made to the principle of good administration, as a tool capable of reconciling the impulses towards efficiency linked to the use of AI tools and the need to guarantee citizens' rights, which risk being threatened by the opacity of algorithms.

3. It is precisely algorithmic transformation that is the focus of theoretical reflection in this book.

After distinguishing between the various types of AI, the author questions the use of the various AI systems in the public sector, analysing in which areas of administrative action the use of the new techniques can be easier and more profitable and what advantages and problems are connected with this use.

As is well known, problems can arise from the lack of transparency and accountability that a dishonest use of AI tools can entail.

Criticism also derives from the difficulties of guaranteeing judicial protection against automatic acts.

Finally, further doubt derives from the uncertainties concerning the guarantee of the security of the systems used, as well as the probable impact they may have on citizens who are less able to use technical means (this is the issue of the digital divide).

These are issues that are of great importance from a legal point of view and to which the author devotes extensive and exhaustive analysis, also by means of a detailed examination of the developments that the debate is undergoing in the main Western European countries.

Of course, these are issues that must be tackled bearing in mind the benefits and risks that the use of algorithmic means entails, seeking to strike a fair balance between the need for effective public action (pursued through more advanced forms of

computerisation) and the guarantees that must be acknowledged to citizens even when action is carried out using robotic tools.

4. The work concludes with an interesting chapter in which it goes on to indicate some legal principles that should guide the use of AI techniques by administrations.

These principles and rules seem to be inspired by an anthropocentric vision, whereby the tools offered by technology are to be used at the service of humans and their needs.

These are worthy and attentive reflections, placed at the conclusion of a volume that, due to the richness of its argumentation, the originality of its reflections and the wealth of references to acts and studies conducted in various Western European states, deserves to be carefully pondered and projects itself as a work that will certainly be taken into consideration by those who approach the study of digital administration law.

Casamassima, 23 June 2023

Angelo Giuseppe Orofino

APPROACH

“There is nothing either good or bad, but thinking makes it so”. With this famous phrase by William Shakespeare, I would like to represent -with a certain irony- two latent premises in this work. The first is that artificial intelligence (AI onwards) is neither good nor bad in itself,¹ and, therefore, this work does not start from any prejudice, but, on the contrary, I will try to study the application of AI to public action with the main purpose of understanding this new reality in which we live. However, there will probably always be biases that are impossible to get rid of.

Secondly, with this expression I want to specifically emphasise the role that thinking plays in this technological disruption, and not just any thinking, but human thinking, since it is not in vain that sometimes it has been translated to “there is nothing good or bad, but *human* thinking makes it so”. However, is it perhaps now that the *human* qualifier should be dispensed with to include the term AI as well?

But let's take it one step at a time, and not reveal our conclusions prematurely.

Without even realizing it, when we unlock a smartphone using facial recognition, check our email from which unwanted emails are automatically delete or use predictive typing, in just a few minutes

¹ I. Martín Delgado, *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 9.

we have used various tools that make use of AI. And in all of this, law plays a relevant role,² with Administrative Law³ standing out when it comes to the use of this technology in the public sector, for example, when the frequency of public transport is decided using AI.

Although perhaps the speed of scientific and technological advances, which border on immediate rather than programmed obsolescence, may make it necessary to constantly update these examples.

That AI is already present in our lives is a fact,⁴ also that it is paradoxically projected towards an -uncertain- future; uncertain for many reasons, not only the use of AI itself, but because it oscillates between the dream of a better, almost perfect world, and the nightmare of humanity's enslavement by the machine or the fear of mental manipulation.⁵

Without being excessively optimistic, but with a firm belief in the public sector (this is probably already the first bias that is difficult to avoid), I am inclined to include myself in the group of those who want to imagine a tomorrow with better public services, with a more efficient Administration, one that is concerned about citizens, proactively committed to innovation, but without neglecting the

² For the importance of the law in this issue, see R. Campione, *La plausibilidad del derecho en la era de la inteligencia artificial. Filosofía carbónica y filosofía silicica del derecho*, Dykinson, Madrid, 2020.

³ H. M. Motzfeldt, *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 99.

⁴ Proof of this is that the Fundación del Español Urgente (FundéuRAE) awarded the title of word of the year (2022) to the complex expression *artificial intelligence*.

⁵ Regarding possible manipulation through the use of AI, it is of great interest to read of the so-called digital nudges and hyper nudges, as well as the dark patterns, studied by J. Ponce Solé, *Law, Digital Nudging and Manipulation: Dark Patterns, Artificial Intelligence and the Right to Good Administration*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 31.

guarantees of the recipients of this public action and, therefore, of all of us.

In other words, following Umberto Eco, I position myself with the integrated rather than with the apocalyptic, and it is from this position that I have approached the study of this subject, which is both interesting and complex; looking for the opportunities but without neglecting the risks⁶ to which we jurists must inevitably refer, as the French *Conseil d'État* has rightly indicated in a recent study on AI in public action.⁷

From this perspective, it is necessary to begin by framing the issue by establishing a series of premises.

The first of these is that AI is just another tool available to public administrations, i.e., a means at the service of the general interest and not an end in itself.⁸

Secondly, that the development and implementation of AI cannot be dissociated from the global context of the digital transformation of public action,⁹ where there is still a long way to go, and it is no coincidence that the title of this paper refers to this evolution.

The third is that it is an element that is part of a new form of

⁶ On artificial intelligence and risk management see, among others, A. Barone, *Ammistrazione del rischio e intelligenza artificiale*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 63-67.

⁷ Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, Paris, 2022.

⁸ This is a frequently reiterated idea, for example, suffice it to mention, among others, I. Martín Delgado, *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, cit.; E. M. Menéndez Sebastián and B. M. Mattos Castañeda, *Better decision-making, algorithmic discrimination and gender biases: a new challenge for the administration of the 21st Century*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022; K. Nyman Metcalf, *e-Governance and Good Administration: Examples from Estonia*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 73.

⁹ On the impact of digitisation on public administration from a global perspective, see, among others B. W. Wirtz, *Digital Government. Strategy, Government Models and Technology*, Springer, Cham, 2022.

public management, the *new public governance*. It is also necessary to point out the need to accompany its integration in the public sector with a culture of change that must also permeate the administrative organisation.

It is in this context that I have undertaken this study, trying to make it respond to a threefold objective. Firstly, to understand the general framework in which this transformation is taking place, the last link of which, for the moment, seems to be the implementation of AI systems. Secondly, the difficult balance between guarantees and effectiveness, and the regulatory context -insufficient for the moment and, especially, dispersed- in which answers must be sought. And finally, the possible concrete application to everyday reality. In other words, from theory to practice, seeking proposals for constant improvement.

If I began with a quote from William Shakespeare to reveal the starting point, I would now like to refer to a classic of our discipline, Maurice Hauriou, to explain very briefly the focus of this work, which is largely deduced from its very title.

The study addresses two issues, the first, the evolution from bureaucracy to AI, which evokes one of the most important aspects I have already mentioned, that we are immersed in a new way of managing the public sector, which is moving from the *Weberian* bureaucratic model to the new public governance, with all that this implies, and which I will try to link in this study to the various aspects to be taken into consideration when facing the challenge of using AI in the public sector.¹⁰

However, it is the second aspect, the tension between effectiveness and guarantees, which inevitably reminds me of the duality to which the French master referred. A duality, which is constant in

¹⁰ On this challenge see, among others, P. K. Agarwal, *Public Administration Challenges in the World of AI and Bots*, in *Public Administration Review*, vol. 78, no. 6, 2018, 917–921.

administrative law, and which, as I will try to explain, permanently underlies the subject under analysis here.

Well, I must already say that far from an absolute truth in the use of artificial intelligence in administrations, far from a straight line to follow, there are multiple bifurcations,¹¹ various questions to ponder that make it difficult to make a decision in this regard, and that, in short, offer a great challenge to today's society, and also to those of us who are dedicated to law and, in particular, to administrative law,¹² since it has important repercussions in this legal discipline.¹³

Precisely, decision-making in the public sector is one of the most controversial aspects in this area:¹⁴ should or could artificial intelligence be used to make decisions? For example, to award a contract or a grant, to make a diagnosis in the public health service, to decide on the frequency of public transport, etc.¹⁵

However, there is still a long way to go before we can offer any proposed answers to this question, so let's get started.

¹¹ In this respect see the idea of E. Laszlo, *La gran bifurcación: crisis y oportunidad; anticipación del nuevo paradigma que está tomando forma*, Gedisa, 1990.

¹² A. Cerrillo i Martínez, *El impacto de la inteligencia artificial en el derecho administrativo. ¿Nuevos conceptos para nuevas realidades técnicas?*, in *Revista General de Derecho Administrativo*, vol. 50, 2019.

¹³ J.-B. Auby, *Administrative Law Facing Digital Challenges*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 15.

¹⁴ As the doctrine indicates, among other reasons, because of the peculiarities inherent to public administrations D. Marongiu, *L'intelligenza artificiale "istituzionale": limitè (attuali) e potenzialità*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 37.

¹⁵ To illustrate some examples of possible applications of AI see, among others, M. L. Littman, et al., *Gathering Strength, Gathering Storms: The One Hundred Year Study on Artificial Intelligence (AI100) 2021 Study Panel Report*, Stanford University, Stanford, CA, 2021; or M. J. Kochenderfer, T. A. Wheeler and K. H. Wray, *Algorithms for Decision Making*, The MIT Press, Cambridge, 2022.

CHAPTER ONE

THE NEW CONTEXT: *NEW PUBLIC GOVERNANCE*

TABLE OF CONTENT: 1. The new relationship between administration and citizenship. – 1.1. What does citizenship mean today? – 1.2. The transition from democratic administration to administrative democracy: the importance of the French concept of *citoyenneté administrative*. – 1.3. *Digital citizenship*. – 2. *Good administration*: a bridge between administrative citizenship and the use of AI. – 2.1. An approach to the notion of *good administration*. – 2.2. How do *good administration* and *administrative citizenship* connect? – 3. The administrative reflection of the paradigm shift: from the *Weberian* model to *New Public Governance*.

1. *The new relationship between administration and citizenship*

In this descending path, from the general to the particular, it is necessary to begin by briefly outlining the general panorama of the paradigm shift in which we are immersed. Since an understanding of this context will serve both to understand the change we are undergoing and to support the search for appropriate solutions to the challenges presented by this transformation.

Thus, for example, it seems evident that greater effectiveness in public management would not be possible without responding to the needs of society or being shrouded in an opacity contrary to the transparency and accountability that mark the renewed role played by the Administration and citizens on the scene.

In addition to the duality between effectiveness and guarantees, it is necessary to take into account the need, already pointed out by the

French *Conseil d'État*,¹ for the acceptability of the use of AI by the recipients of public action, the citizens.

A few brief reflections should be devoted to these questions in order to understand the new relationship between citizenship and the Administration.

1.1. *What does citizenship mean today?*

As the French *Conseil d'État* reminds us, men and women are social beings. The idea of citizenship is thus linked to the right to participate in decisions concerning the political community and is therefore at the epicentre of the Western conception of the relationship between the individual and society.²

However, we are currently witnessing the exaltation of a series of principles, such as transparency, accountability, participation, public ethics, etc.,³ which respond to a new relationship between public

¹ Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance*, cit.

² Conseil d'État, *La citoyenneté. Être (un) citoyen aujourd'hui*, La Documentation Française, Paris, 2018, 11.

³ Without wishing to be exhaustive, I would like to mention by way of example in España L. Cotino Hueso, *Derecho y "gobierno abierto". La regulación de la transparencia y la participación y su ejercicio a través del uso de las nuevas tecnologías y las redes sociales por las Administraciones públicas: propuestas concretas*, in *Revista Aragonesa de Administración Pública*, no. Extraordinary, 2013, 51 ff.; A. Cerrillo i Martínez, *Las leyes de transparencia y la innovación en las administraciones públicas*, in *Revista Internacional de Transparencia e Integridad*, vol. 5, 2017, 1 ff.; E. Guichot, *El nuevo derecho europeo de acceso*, in *Revista de Administración Pública*, no 160, January-April 2003, 283-315; by the same author *Acceso a la información en poder de la Administración y protección de datos personales*, in *Revista de Administración Pública*, no. 173, May-August 2007, 407-445; E. Guichot (dir.), *Derecho de comunicación*, Iustel, Madrid, 2018; VV.AA., *Configuración legal, actuación y funciones de las autoridades de transparencia: algunas propuestas de mejora*, Fundación democracia y Gobierno Local, Barcelona, 2019; M. A. Blanes Climent, *La transparencia informativa de las administraciones públicas: el derecho de las personas a saber y la obligación de difundir información pública de forma activa*,

authorities and citizens. This involves not only important functional changes, but also changes in the conception of what citizenship is and how to make it effective, which, although not always explicitly stated, is key to know and understand the very reason for the transformations that have been taking place in our environment.

Thomson Reuters, Navarra, 2014; M. Fernández Salmerón and J. Valero Torrijos, *Régimen jurídico de la transparencia del sector público: del Derecho de acceso a la reutilización de la información*, Thomson Reuters, Navarra, 2014; M. Zambonino Pulito, *Buen Gobierno y buena administración: cuestiones claves*, Iustel, Madrid, 2019; in France, among others, B. Christophe, *La transparence administrative en droit français*, *Economic papers*, 2006, 59-67; A.-M. Tournepiche, *Vers de nouveaux champs d'application pour la transparence administrative en droit communautaire*, in *Cahiers de droit européen- CDE*, Larcier, Brussels, 2007, 623 ff.; S. Perez, *Secrets, transparence et corruption des administrations : Rapport Union européenne*, in *Annuaire européen d'administration publique*, Aix-en-Provence, Presses universitaires d'Aix-Marseille, 2014, 345-374; L. Cluzel-Métayer, *La loi pour une République numérique : l'écosystème de la donnée saisi par le droit*, in *L'Actualité juridique. Droit administratif*, Dalloz, 2017, 340 ff.; S. Wojcik, *Prendre la démocratie électronique au sérieux : De quelques enjeux et controverses sur la participation politique en ligne*, in *La démocratie électronique*, Nov. 2009, Besançon, France; F. Pinel, *La participation du citoyen à la décision administrative*, Thèse, Droit, Université Rennes 1, 2018; Q. Cardi, *Les normes de la démocratie à l'épreuve de la participation citoyenne numérique institutionnalisée : une étude de l'appropriation du numérique par le politique dans le cadre des processus de participation citoyenne*, Thèse, Philosophie, Université Panthéon-Sorbonne - Paris I, 2018; J. Chevallier, *Le "public" du code*, in G. Koubi, L. Cluzel-Métayer and W. Tanzani, *Lectures critiques du Code des relations du public avec l'administration*, Lextenso, 2018, 127-140; in Italy, for example, A. G. Orofino, *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, Cacucci, Bari, 2020, VV.AA., *La comunicazione pubblica in Europa*, Franco Angeli, 1999; U. Allegretti, *L'amministrazione dall'attuazione costituzionale alla democrazia partecipativa*, Giuffrè, Milano, 2009; F. Alicino, *L'evoluzione dell'istituto della cittadinanza. Un nuovo homo juridicus nell'epoca dello Stato dei diritti*, in VV.AA., *Scritti Degennaro*, Cacucci, Bari, 2014, 19 ff.; G. Arena, *Trasparenza amministrativa e democrazia*, in Arena G., *Trasparenza amministrativa e democrazia*, in G. Berti and G. C. De Martin (eds.), *Gli istituti della democrazia amministrativa*, Giuffrè, Milano, 1996, 16 ff.; N. Bobbio, *Democrazia e segreto*, Einaudi, Torino, 2011; S. Cassese, *Il cittadino e l'amministrazione pubblica*, in *Rivista Trimestrale di Diritto Pubblico*, no. 4, 1998, 1015-1033; R. Ferrara, *La partecipazione al procedimento amministrativo: un profilo critico*, in *Diritto amministrativo: rivista trimestrale*, no. 2, 2017, 209-234, etc.

To this end, it is worth mentioning here a concept that has been used for almost twenty years in French doctrine. We refer to the idea of the *citoyenneté administrative*,⁴ since, in our opinion, explains in a very precise and interesting way the transformation that public administrations have undergone, as well as the introduction of transparency, participation and accountability. The *Conseil d'État* even goes a step further to speak of the *citizenship of public action*, which gives life to political citizenship.⁵

In my opinion, the idea of the common project referred to by the *Conseil d'État* is important, but so too is the fact that inequality is a major cause of citizen distrust,⁶ and as such the solution must undoubtedly correct this inequality and not accentuate it.⁷ Nor is

⁴ In relation to this concept, it is worth highlighting the doctoral thesis of Professor G. Dumont, *La citoyenneté administrative*, Phd thesis, Université Panthéon-Assas Paris 2, 2002.

⁵ Conseil d'État, *La citoyenneté. Être (un) citoyen aujourd'hui*, cit., 63.

⁶ In relation to the key question of trust, it should be remembered that, as Prof. E. García De Enterría rightly said in *Democracia, jueces y control de la Administración*, Civitas, Madrid, 1996, 102-103, "the essence of the trust, to which the primary meaning of the word alludes, is trust, which (as occurs with the mandate in Romanised law) is not given once and for all, but must be kept alive constantly and from which instructions can be addressed to the trustee and, eventually, revoked. Nothing could be more opposed to this idea of trust or *fiducia* than to imagine it as an alienation of powers, whether this alienation is conceived as perpetual (the central idea of absolute monarchies, renewed with plebiscitary formulas by modern dictatorships), or as temporary, for the period of the legislature to which an election refers, after which either a ratification of the incumbent manager or a new alternative manager emerges, who would go on to occupy the same formal position as the previous one as the unconditional holder of power. Elections, which are undoubtedly vital for democracy, as an instrumental procedure for the expression of popular confidence, are not, however, able to absorb the fullness of this confidence, which it is essential to keep alive throughout the period of performance, as the nerve that enlivens and animates the actions of the managers and, with it, the entire democratic system".

⁷ We refer to this in specifically because the French *Conseil d'État* itself, in its 2018 study, points out that digital technology, which has the potential to both

the importance of the philosophy of commitment, which is characteristic of this notion of citizenship as handled by the French, any less important.⁸ And, although I cannot dwell here on the very concept of citizenship and the transformation it has undergone in recent years, we must at least raise this idea of commitment, as well as recalling that, along with bestowing rights, citizenship also includes duties.

In short, citizenship, from this French perspective, is exercised through the recognition of specific rights for citizens in their relations with public authorities, including the public administration, as well as in all consultative processes involved in the drafting of public decisions in which citizens participate. Participation that currently has various instruments at its disposal and in which the technological revolution has had a clear impact.

In conclusion, very briefly, given that it is worth referring in this respect to what has already been pointed out elsewhere,⁹ it is important to specify that this study is based on a concept or idea of citizenship that is founded on three pillars: common project,

facilitate and broaden the scope of participation, nevertheless also has the potential to reproduce the biases and inequalities observed in consultations carried out in the traditional administrative and political sphere; and it can also give rise to new risks, such as fake news or the hacking of online consultation or voting processes, as well as the widening of the *digital divide*. Neither should the idea put forward in the aforementioned study regarding the possible contribution of social networks to divide rather than unite in search of a common project be disregarded.

⁸ Thus, in the idea put forward by Dominique Schnapper, citizenship expresses a standard of common life or coexistence, a community of citizens, of a nation, in accordance with the democratic principles embodied, in France specifically, in the three pillars of the motto of the republic: liberty, equality and fraternity. See, in this respect, several works by this same author, such as *Qu'est-ce que la citoyenneté ?*, Folio actuel, vol. 75, Gallimard, Paris, 2000; or more recently *La citoyenneté à l'épreuve. La démocratie et les juifs*, Collection NRF Essais, Gallimard, Paris, 2018.

⁹ E. M. Menéndez Sebastián and J. Ballina Díaz, *Digital citizenship: fighting the digital divide*, in *European Review of Digital Administration & Law*, vol. 2, Issue 1, 2021, 149-155; and *Sostenibilidad social y ciudadanía administrativa digital*, Reus, Madrid, 2022.

commitment and equality, a notion that will condition the approach adopted when addressing this topic, and which explains the need for the digital revolution, which is shaking the foundations of today's society, to be properly channelled and to serve to unite and not to distance, because only this common project, based on equality and the commitment of citizens to the common good, can make the social sustainability,¹⁰ the trust in institutions and the acceptability of decisions viable, also including within them the use of AI in the public sector.

1.2. *The transition from democratic administration to administrative democracy: the importance of the French concept of citoyenneté administrative*

Within this context, then, it is important to analyse the transformation of the relationship between citizens and the public administration for two main reasons: On the one hand, because the administration is one of the public authorities referred to earlier. On the other, because it is not without reason that we nowadays speak of the *citizen* within this relationship and not of the *administré*, *usager* and/or *partie intéressée*,¹¹ as was the case not so many years ago. This, as will be seen, represents a profound change, strongly linked to the very concept of citizenship.

Indeed, the change from considering those who have a relationship with the administration or use a public service as being the *administré* or *usager*¹² to the idea of citizen has implied a

¹⁰ In other words, ensuring the conditions necessary for human well-being are equitably distributed between classes and genders, in other words, reducing inequalities.

¹¹ We have chosen to use the French terms *administré*, *usager* and *partie intéressée*, since there are no legal equivalents in the British system, hence the difficulty of a suitable translation into English.

¹² Thus, as V. Donier has already pointed out in *Les droits de l'usager et ceux du citoyen*, in *Revue française de droit administratif*, vol. 1, 2008, 13, the first step in this evolution was taken with the idea of the *usager*, thus demonstrating the

complete transformation that is reflected in this *citoyenneté administrative*. Likewise, it is necessary to consider the changes that have occurred in the classic conception of citizenship itself, which is more closely linked to the idea of nationality.

This new position that the citizen has acquired with respect to the administration is what justifies the introduction -from this perspective of citizenship- of the principles on which the new governance largely hinges (i.e., transparency, accountability, participation, public ethics). This is a profound transformation of the relationship between the administration and the citizens of today, formerly the *administrés*, in line with the transition from *democratic administration* to *administrative democracy*. The increasing use of the notion of *democracy in public administration* clearly reflects this shift. It implies the granting of new rights to all citizens, also *involving* them in administrative processes within a framework of deliberative and participatory mechanisms.¹³

The notion of *administrative democracy*,¹⁴ as already mentioned, reflects a profound change in the traditional conception of the relationship between administration and democracy; the administration is no longer called upon to be democratic, but rather to become the spearhead and vector of a reformulation and consolidation of democratic logic. However, we must never lose sight of the fact that *administrative democracy* complements representative democracy and does not substitute for it,¹⁵ it is a means of participation in power that does not end simply with the

emancipation of the *administré* with respect to the administration, since he/she ceases to be subject to administrative action and becomes its beneficiary.

¹³ In the words of J. Chevallier, *De l'Administration démocratique à la démocratie administrative*, in *Revue Française d'Administration Publique*, vol. 137-138, 2011, 217-227.

¹⁴ According to C. Testard, is understood as the set of rules that tend to encourage the participation of citizens in the elaboration of administrative decisions (*Pouvoir de décision unilatérale de l'administration et démocratie administrative*, LGDJ, coll. Bibliothèque de droit public, vol. 304, Paris, 2018).

¹⁵ This is the line taken by the Conseil d'État, *La citoyenneté. Être (un) citoyen aujourd'hui*, cit., 14; and J. Chevallier, *De l'Administration démocratique à la démocratie administrative*, cit., 227; G. Dumont, *La citoyenneté administrative*, cit., 367; and E.

right to vote but extends to every moment of institutional life¹⁶. Moreover, all this is linked to good administration,¹⁷ in the sense of effectiveness, efficiency and better decision-making, as will be discussed below, and makes it inevitable that the design and implementation of artificial intelligence in the public sphere will also be open to participation.

This changed relationship can be seen in various regulations where, in effect, the terms *administré*, *usager* and *partie intéressée* have been replaced by the term *citizen*. This is evident in France with the *Loi n° 2000-321 du 12 avril 2000 relative aux droits des citoyens dans leurs relations avec les administrations*¹⁸ and, more recently, in Spain in the *Ley 39/2015 de Procedimiento Administrativo Común de las Administraciones Públicas*,¹⁹ and the *Ley 9/2017 de Contratos del Sector Público*.²⁰

Thus, by recognising that the *administré* is also a citizen, the regulations in force consider that the administrative relationship has a civic dimension. The administration must provide citizens with the means to exercise their citizenship, and access to it can be gained through the administrative relationship. This transforms the nature of the administrative relationship, where citizens have the right to participate in administrative action and to have access to

Debaets, *Protection des droits fondamentaux et participation de l'individu aux décisions publiques*, in *Jurisdoctoria*, vol. 4, 2010, 175.

¹⁶ A. G. Orofino, *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, cit., 53.

¹⁷ As was stated by the Conseil d'État, *Consulter autrement, participer effectivement*, La Documentation Française, Paris, 2011, 92.

¹⁸ Today the *Code des relations entre le public et l'administration* (hereinafter CRPA) (adopted by Ordonnance n° 2015-1341 du 23 octobre 2015 relative aux dispositions législatives du code des relations entre le public et l'administration, *JO*, n° 0248, 25 octobre 2015, p. 19872, texte n° 2) which to a certain extent replaces the term citizen with that of public, should be taken into account, as shown by F. Pinel, *La participation du citoyen à la décision administrative*, cit., 19-20.

¹⁹ Although, for example, the term "citizen" is mentioned 22 times in the Act, the change and its full implications are not made explicit.

²⁰ For example, when in Art. 312 it speaks of service contracts for direct services to citizens.

the administration, with the administration being accountable to them. Hence, as will be said, the opacity in the use of artificial intelligence by the administration must be banished.

Administrative citizenship thus understood covers two realities: on the one hand, due to the substitution of terms, all citizen rights can be considered citizenship rights; on the other hand, the civic dimension of the administrative relationship is affirmed as a support for political citizenship. The administrative citizenship that thus emerges means that voters are at the same time citizens *of* the administration and citizens *in* the administration.²¹ In short, it is a matter, therefore, of making citizenship effective through citizens' participation in administrative power through prolonged participation, making it effective through the relationship with the Administration. This not only explains the current context in which the digital transformation should be embedded but also the proposals on how to deal with the use of AI in public action.

1.3. *Digital citizenship*

If we agree that the key element of citizenship is participation in power, be it through political rights or, more concretely, through *citoyenneté administrative*,²² the notion of *digital citizenship* leads us inevitably to the idea of such participation in public decision making through digital means.²³

²¹ G. Dumont, *La citoyenneté administrative*, cit., 666-667.

²² Doctrine has it that, in effect, one of the attributes of all citizenship is the right to participate in the making of administrative decisions, as indicated by G. Eveillard, *La citoyenneté administrative, vecteur de nouveaux droits publics subjectifs des administrés ?*, in *Les droits publics subjectifs de l'administré*, Bordeaux, France, Association française pour la recherche en droit administratif, Jun 2011, 109; and F. Pinel, *La participation du citoyen à la décision administrative*, cit., 20.

²³ For K. Mossberger, C. J. Tolbert and R. S. McNeal, *Digital Citizenship. The Internet, Society and participation*, The MIT Press, Massachusetts Institute of Technology, 2008, 1, *digital citizenship* is the ability to participate in society online.

Accordingly, if the shift from the idea of the administered (*administré*) to that of the citizen has meant a profound transformation in the relationship with the Administration, another aspect that has contributed to the change in the way of relating has undoubtedly been technology, which has had a significant impact on social interaction, also extending to the public sphere,²⁴ for example, in terms of the important role played by the digital revolution on the forms of participation that are available. Thus, the confluence of principles and terms such as transparency, deliberative democracy, participatory democracy, good administration, good governance, etc., and the new communication and information technologies are evident. Suffice it to mention the digital revolution's relevance to the forms of participation.²⁵

Although participation from the perspective of citizenship and, particularly, of digital citizenship, has been identified or related to administrative democracy; however, it is not the only manifestation of participation, since it also responds to other functions. Citizens participate actively not only in a general sense but also to defend their own particular interests. Participation serves both to improve decision-making and to give it greater legitimacy.²⁶ The citizen who participates does so in a variety of ways, as an *interesée* as a private

On the definition of *digital citizenship*, see also F. Greffet and S. Wojcik, *La citoyenneté numérique. Perspectives de recherche*, in *Réseaux*, vol. 184-185, 2014/2-3, 125-159.

²⁴ As main elements of this change, A. Mantelero, *Ciudadanía y gobernanza digital entre política, ética y derecho*, in T. De La Quadra-Salcedo and J. L. Piñar Mañas (dirs.), M. Barrio Andrés and J. Toirregrosa Vázquez (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 160, identify communication, online services and datification.

²⁵ L. Cotino Hueso, *Derecho y "Gobierno abierto". La regulación de la transparencia y la participación y su ejercicio a través del uso de las nuevas tecnologías y las redes sociales por las Administraciones públicas. Propuestas concretas*, cit., 53, points out that the very notion of open government was born linked to e-democracy and e-transparency.

²⁶ Although it should be remembered that there are authors who understand that the legitimacy of the administrative decision derives indirectly from the execution of the people's decisions, as for example G. Dumont, *La citoyenneté administrative*, cit., 15 and 212.

individual, as a member of civic society, as a member of an interest group or *lobby*, etc.²⁷ There are also a variety of instruments for participation, such as administrative procedures, referendums, public consultations,²⁸ etc., and a number of phases involved in decision-making where this participation is present.²⁹

The use of new technologies to channel these different forms of participation is proof of this, although doctrine does not agree on the phases when it is most appropriate for them to be used.³⁰

New ICTs indisputably provide an opportunity for the exercise of citizenship through participation, as they can increase the number of

²⁷ In short, as Prof. E. García De Enterría pointed out more than thirty years ago in *Principes et modalités de la participation à la vie administrative*, in F. Delpérée (dir.), *La participation directe du citoyen à la vie politique et administrative (Travaux des XIIes Journées d'études juridiques Jean Dabin)*, Bruylant, Brussels, 1986, 257, participants in the decision-making process can be affected in different ways: the individual can be associated with public action as a holder of rights or interests, as a *private* actor, but also as a “guardian and protector of a collective value”, as an actor with a *public* interest.

²⁸ In relation to the issue of participation, its functions and instruments, as well as the guarantees of participation, it is worth highlighting the thesis of P. Florian, *La participation du citoyen à la décision administrative*, Droit, Université Rennes 1, 2018.

²⁹ Thus, it is possible to speak of a first phase in which what is in the general interest is established. The second stage is participation in the narrower sense, i.e., in the decision-making process. And in a final phase, participation in a broader sense through the evaluation of public policies or the so-called accountability.

³⁰ For these different doctrinal positions, see, for example, L. Cotino Hueso, *Derecho y “Gobierno abierto”. La regulación de la transparencia y la participación y su ejercicio a través del uso de las nuevas tecnologías y las redes sociales por las Administraciones públicas. Propuestas concretas*, cit., 74; Q. Cardì, *Les normes de la démocratie à l'épreuve de la participation citoyenne numérique institutionnalisée : une étude de l'appropriation du numérique par le politique dans le cadre des processus de participation citoyenne*, cit., 24, or S. Wojcik, *Prendre la démocratie électronique au sérieux. De quelques enjeux et controverses sur la participation politique en ligne*, cit., 11.

participants;³¹ however, they can also involve risks and threats, such as favouring unilateral expressions, polarization phenomena (citizens often only visit websites where the ideas expressed are similar to their own), as well as fickle and irrelevant citizen expressions.³² Hence, the use that elected representatives make of these new technologies to organize institutionalized participatory procedures is of great importance.³³

For this reason, it is also necessary to analyse the various instruments of *online* participation in depth before putting them into practice, establishing what their advantages and disadvantages may be, how they can be used correctly and also considering what dangers they may entail.³⁴ The variety of instruments of this type that can be used throughout the various phases involved in participation in the broad sense in public decisions, so-called *open government*, as well as the new public governance, is considerable, meaning that only a thorough knowledge of them will make it possible to use them correctly.³⁵

Unarguably, this is a complex issue which requires reflection and good regulation. A strategy that makes it possible to take advantage

³¹ According to Q. Cardi, *Les normes de la démocratie à l'épreuve de la participation citoyenne numérique institutionnalisée : une étude de l'appropriation du numérique par le politique dans le cadre des processus de participation citoyenne*, cit.

³² In this respect, see, inter alia, M. Hindman, *The myth of digital democracy*, Princeton University Press, 2009.

³³ Q. Cardi, *Les normes de la démocratie à l'épreuve de la participation citoyenne numérique institutionnalisée : une étude de l'appropriation du numérique par le politique dans le cadre des processus de participation citoyenne*, cit., 22.

³⁴ Consider the differences between referendums, participatory budgets, public debates, consultations, polls, and even e-voting, both in terms of potential effectiveness, the degree of participation and/or deliberation, and even the legitimacy of the participants.

³⁵ Indeed, as D. Innerarity, *El impacto de la inteligencia artificial en la democracia*, in *Revista de las Cortes Generales*, vol. 109, second semester, 2020, 90, points out, “the way in which we configure the governance of these technologies will be decisive for the future of democracy; it may imply its destruction or its strengthening”.

of the benefits of new ICTs, especially the possibility of opening up debate and participation to all, without undermining or distorting representative democracy but rather complementing it, without violating citizenship but rather making it effective, involves, first of all, effective access for all to these new means of participation and, even more importantly, making them known and encouraging their use. It is clear that the objective is not the use of ICTs,³⁶ but rather that, through them, citizens can participate in an effective and efficient government that genuinely responds to their needs, with the idea that when transparency, participation, collaboration and accountability are present,³⁷ the result should be an effective, efficient and responsible government, the basis of good government and good administration.

³⁶ This was pointed out by I. Martín Delgado, *El acceso electrónico a los servicios públicos: hacia un modelo de administración digital auténticamente innovador*, in *Sociedad digital y Derecho*, T. De La Quadra-Salcedo and J. L. Piñar Mañas (dirs.), M. Barrio Andrés and J. Toirregrosa Vázquez (coords.), BOE, Madrid, 2018, 180; and was previously noted in E. M. Menéndez Sebastián, *Las garantías del interesado en el procedimiento administrativo electrónico: luces y sombras de las nuevas Leyes 39 y 40/2015*, Tirant lo Blanch, Valencia, 2017.

³⁷ As highlighted by W. Gilles, *From the right to transparency to the right to open government in a digital era. A French approach*, in *International Journal of Open Government*, 27, rather than promoting transparency per se, the modern approach uses transparency as a vehicle to improve the functioning of government administration and to hold officials accountable for their decisions and actions. Finally, from this perspective, in his view, citizens now, in the Internet age, have not only a right to transparency and access to public information, but a broader right to open government that allows them to be at least a partial stakeholder in public decision-making.

2. *Good administration: a bridge between administrative citizenship and the use of AI*

2.1. *An approach to the notion of good administration*

In the new idea of citizenship, another notion that has been infiltrating our legal vocabulary for some time is revealing, although it is a much older institution than it might seem and which, in my opinion, is destined to play a crucial role in administrative law itself and, specifically, in this new relationship between citizens and the administrative power: I am referring to *good administration*.

Without going into further depth as to what is meant or what should be implied by the notion of *good administration*,³⁸ it is now possible simply to offer a tentative idea, given its prominent role in relation to the use of AI systems in Administration,³⁹ and, in particular, to effectiveness, which is in constant tension with safeguards.

It is paradoxical, to say the least, that the term *good administration* has been used for years, not only in case law, but even expressly reflected in various regulatory texts,⁴⁰ and yet they do not offer a concept, a notion or definition of what *good administration* is or what we should understand it to mean. This is the case in several systems.⁴¹

³⁸ In this regard, see E. M. Menéndez Sebastián, *De la función consultiva clásica a la buena administración. Evolución en el Estado Social y Democrático de Derecho*, Marcial Pons, Madrid, 2021.

³⁹ Proof of this is the monograph of the European Review of Digital Administration & Law -ERDAL- on digitisation and good administration.

⁴⁰ The most important of these is undoubtedly Article 41 of the Charter of Fundamental Rights of the European Union, in respect of which reference should be made to what has been said at E. M. Menéndez Sebastián, *La apuesta europea por una buena administración: implicaciones y estado de la cuestión*, in M. P. Andrés Saénz De Santa María (dir.), *Una contribución a la europeización de la ciencia jurídica. Estudios sobre la Unión Europea*, Thomson Reuters-Civitas, Navarra, 2019, 613-629.

⁴¹ Although it is true that, as will be explained in more detail, there are those who have made a real effort to find a notion of good administration, as is the case of the French author R. Boust, *Essai sur la notion de bonne administration en*

This absence of a more or less concrete and accepted definition has meant that, despite being a key aspect of administrative law, it has not been given the force and role it should have in it, and even that its practical application has been considerably relegated, although in recent times references to this crucial element of our discipline can be found in case law, albeit still too timidly.

The aim here is, therefore, to highlight the value of this notion, to claim its importance in current administrative law and, therefore, to highlight the need to give it specific legal effects, with the aim of connecting it with the idea of administrative citizenship set out above, as well as its decisive role in the application of artificial intelligence systems by public administrations. In all of this, the role of the European Union, both the case law of the Court of Justice of the European Union (hereinafter CJEU)⁴² and the indisputable work of the European Ombudsman, should undoubtedly be highlighted.⁴³

Thus, there are different points of view: from the role of good administration in the very construction of the European

Droit public, L'Harmattan, Paris, 2010. And, in general, on good administration it is also worth highlighting the many works by Julio Ponce, among others, J. Ponce Solé, *Deber de buena administración y derecho al procedimiento administrativo debido. Las bases constitucionales del procedimiento administrativo y del ejercicio de la discrecionalidad*, Lex Nova, Valladolid, 2001, and *La lucha por el buen gobierno y el derecho a una buena administración mediante el estándar jurídico de diligencia debida*, Cuadernos de la Cátedra de Democracia y Derechos Humanos, Madrid, 2019.

⁴² Thus, from the judgment of the Court of Justice of 11 February 1955, *Industrie Siderurgiche Associate (ISA) v. High Authority of the European Coal and Steel Community*, Case 4-54 (ECLI:EU:C:1955:3), to the judgment of 25 June 2020, *Case SC v. E.K.*, ECLI:EU:C:2020:505, among many others.

⁴³ On the important role that this figure plays, especially in terms of achieving good governance, see, for example, B. Ferrer Jeffrey, *Presente y futuro del Defensor del Pueblo Europeo, guardián de la buena administración*, in *Revista de Derecho de la Unión Europea*, vol. 3, 2022, 341-353.

administrative space itself,⁴⁴ to a more restrictive vision,⁴⁵ which allows us to distinguish it from other terms such as good government or good governance. Although government and administration are and have always been strongly linked, their functions, perspective, principles and instruments applicable to both cannot and should not be identical.

From this perspective, it is possible to offer a specific notion of good administration, starting from the very meaning of the words that compose it, as well as from its purpose, which is none other than to serve the general interest objectively, effectively and efficiently.⁴⁶

In this way, it is necessary to explain that “good” should not be linked here to moral aspects or values, but that in the very definition given in the Dictionary of the Royal Academy of the Spanish Language, in its first meaning, it is understood that such an adjective means “of positive value, in accordance with the qualities that can be attributed to it by its nature”, passing secondly to consider it as “useful and purposeful for something”.

These definitions of the adjective that accompanies the noun “Administration” already offer an image of the expression analysed here, as they evoke the idea that it is something in keeping with its nature, with its very purpose, in this case of the Administration. This inevitably leads us to remember what the Administration is and, especially, what function it fulfils. Without forgetting that its etymological origin indicates that the Administration is born for (*ad*) service (*ministratio*).

Thus, a first idea of what should be understood by good administration is that it should adequately fulfil its service function. Without forgetting that art. 103 of the Spanish Constitution, which

⁴⁴ In this respect, it is undoubtedly worth highlighting the thesis of E. Chevalier, *Bonne administration et Union européenne*, Bruylant, Brussels, 2014.

⁴⁵ R. Boust, *Essai sur la notion de bonne administration en Droit public*, cit.

⁴⁶ As established, for example, by Article 103 of the Spanish Constitution.

is undoubtedly the first normative reference in any study of this discipline, explicitly states that the administration objectively serves the general interest.

Therefore, there will be a good administration when it adequately serves the general interest, without forgetting the necessary adaptation in this respect to the social needs which, as Prof. Nieto rightly indicated, guide it towards the general interest.⁴⁷ In this respect, the adequacy of the means at its disposal to this end will be decisive, as well as the decision-making process, hence the inevitable connection with discretionary powers. This issue, to which special attention will be devoted in the following chapter, is of utmost relevance in the study of the uses of AI by the administration.

This in turn connects, as H. A. Simon indicated when speaking of good administrative behaviour, with efficiency.⁴⁸ Efficiency, which even for Italian doctrine is a general principle of administrative organization, referred to in art. 97 of the Italian Constitution when it speaks of the good functioning of the Administration,⁴⁹ and which, even before it, was handled by classical doctrine.⁵⁰

All this leads to highlighting the connection with the exercise of discretionary powers, insofar as it must choose the means for the most appropriate fulfilment of the general interest, which, in my

⁴⁷ A. Nieto, *La "nueva" organización del desgobierno*, 3rd ed., Ariel, Barcelona, 2003, 147.

⁴⁸ H. A. Simon, *Administrative behavior: a study of decision making processes in administrative organizations*, 2nd ed., The Free Press, New York, 1957, 38-39.

⁴⁹ Thus, for example, according to S. Cassese, *Il diritto alla buona amministrazione*, in *Relazione alla Giornata sul diritto alla buona amministrazione per il 25° anniversario della legge sul "Sindic de Greuges" della Catalogna*, Barcelona, 2009, 3, this constitutional precept implies the enshrinement of the principles of impartiality and *good administration*.

⁵⁰ As he explains D. Vese, *L'efficienza dell'organizzazione amministrativa come massimizzazione dei diritti fondamentali*, in *P.A. Persona e Amministrazione*, no. 1, 2019, 279-363.

opinion, as has been made clear in specific sectors,⁵¹ means that this decision is not free, but that, through the appropriate weighting, the most correct decision is taken,⁵² in short, it is not, as has been understood at the time, a choice between legal indifference, but rather the best selection of means.

On the other hand, it is evident that in this decision-making process, the role of the administrative procedure is essential, which, far from being only an instrument of guarantees for the citizen, is also the channel for adopting better decisions.

All of the above, in my opinion, must relate to the very essence of administrative law, especially with the idea of balance, Maurice Hauriou's duality, given that administrative law is a constant and unstable balance in movement between general interests and private interests,⁵³ between the prerogatives of the Administration and the guarantees of citizens. An idea that, moreover, is latent throughout this study.

Finally, we cannot forget the essential balance with the private interest, hence the need also to respect the guarantees of the citizen, and the undoubted link with the fundamental right to good administration,⁵⁴ proclaimed in Article 41 of the Charter of

⁵¹ Thus, for example, in the choice between the direct or indirect provision of public services, as has already been discussed in E. M. Menéndez Sebastián, *La buena administración en la gestión de los servicios públicos*, in L. Tolivar Alas and M. Cueto Pérez (coord.), *La prestación de servicios socio-sanitarios: Nuevo marco de la contratación pública*, Tirant lo Blanch, Valencia, 2020, 171-200.

⁵² Adequate weighting and due diligence as referred to by the *Tribunal Supremo*, Contentious-Administrative Chamber, in its judgments of 23 July 2015, ECI:ES:TS:2015:3601 and 20 November 2015, ECI:ES:TS:2015:5342.

⁵³ A particularly complex balance in the subject matter of this study, i.e., the use of artificial intelligence by administrations Agenzia per l'Italia Digitale, *Libro Bianco sull'Intelligenza Artificiale al servizio del cittadino*, 2018, 55.

⁵⁴ In relation to this fundamental right, see, for example, B. Tomás Mallén, *El derecho fundamental a una buena administración*, INAP, Madrid, 2004; or J.-P. Jacqué, *Le droit à une bonne administration dans la charte des droits fondamentaux de l'Union européenne*, in *Revue Française d'Administration Publique*, no. 137-138, 2011, 79-83.

Fundamental Rights of the European Union,⁵⁵ which makes specific reference to certain procedural rights, in short, to those guarantees of the interested party, and which must be remembered that since the Lisbon Treaty has acquired a primary legal status with all that this implies.⁵⁶

In conclusion, the notion of good administration is used here as one that performs its function well, thus serving the general interest,⁵⁷ but also without prejudice to or with respect for private interests. In short, one that makes an appropriate weighing of the means, circumstances, facts and elements present -which is connected with the motivation, the obligation of *due care* or *due diligence* of which the Court of Justice of the European Union⁵⁸ speaks, and which is the basis of fairness- and adopts the best decision, in whose choice will be relevant, for the success of the same, the appropriate procedure; since this, among other functions, fulfils two in a prominent way: the best decision making and the guarantee of the rights of those interested in the same. These elements are present in the debate on implementing AI in the public sphere.

Thus, starting from this more or less concrete notion, the specific functionalities of good administration must also be considered, i.e., how it can contribute something more than a rhetorical recognition of previously existing rights and principles. This, as will be seen,

⁵⁵ On the formation of the right to good administration in the European Union, see the discussion in E. M. Menéndez Sebastián, *La apuesta europea por una buena administración: implicaciones y estado de la cuestión*, cit.

⁵⁶ As he explains M. Plohmann, *Das Recht auf eine gute Verwaltung gemäß Art. 41 der Charta der Grundrechte der Europäischen Union*, in *Walter Hallstein-Institut für Europäisches Verfassungsrecht, Humboldt-Universität zu Berlin*, 2014.

⁵⁷ Adequacy of resources, efficiency and good administrative behaviour are decisive. Simon H. A., *Administrative behavior: a study of decision making processes in administrative organizations*, cit., 38-39.

⁵⁸ CJEU of 4 April 2017, Case C 337/15 P, ECLI:EU:C:2017:256, or that of 22 November 2017, Case C 691/15 P, ECLI:EU:C:2017:882.

will also be important in this study to find answers. And both from a pre-action perspective and from a post-action perspective with respect to its control. Among them, four are worth highlighting, such as the proper functioning of the administration, where the importance of standards and soft law should be mentioned; good administrative decision-making, in terms of which it is necessary to speak of discretionary power, due diligence, weighing of interests, motivation, assessment of the facts and circumstances, etc. A more comprehensive management, concerning which it is worth considering whether the legal opportunity has not become part of the control of legality itself by being somehow legitimized, and without forgetting that it is not only judicial, since there are other types of controls, for example, that developed by the Ombudsmen, who play a crucial role in this matter; and effective administrative protection, as something more than a set of procedural rights, and which, as the Spanish *Tribunal Supremo* says, does not stop at the mere strict observance of procedure and formalities.

2.2. *How do good administration and administrative citizenship connect?*

The need or advisability of connecting the notion of *good administration* -in the terms described above- and that of *administrative citizenship*,⁵⁹ is highlighted by the very fact that in the Charter of Fundamental Rights of the European Union, the chapter dedicated on citizenship, comprising Articles 39 to 46, not only includes the right to vote, free movement and residence and diplomatic and consular protection, but also the right to *good administration*, the right of access to documents, the European Ombudsman and the right to petition.

Furthermore, the link between the so-called *deliberative administration*

⁵⁹ F. Delpérée, *Rapport de synthèse sur la citoyenneté administrative*, in *Annuaire Européen d'Administration publique*, Presses Universitaires d'Aix-Marseille, Aix-en-Provence, 199-210.

-to which reference has already been made- and *good administration* is evident. Thus, the aim is to respond simultaneously to the need for a transparent and open administration, facilitating the acceptability of the decision, and to the need for a more efficient administration that allows a faster and more direct response to the needs expressed by citizens.⁶⁰ Moreover, suppose deliberation means considering all aspects of a phenomenon in order to make the right decision about it. In that case, this connects with the idea of *good administration*, in the sense of seeking the best possible decision, considering all the elements present. This in turn can be linked to artificial intelligence systems and especially the handling of a more significant amount of data in decision-making.

In short, it is indisputable that if, in order to respond to the need for *good administration*, even if this is understood from a restrictive point of view connected with efficiency and effectiveness, it is necessary to have the inexcusable points of view to adopt the best possible decisions, one of them must necessarily be that of the recipients of the service and of the citizens in general. This is connected with the so-called people-based design and with taking into account the needs to be covered by these services, in short, with providing a better response to them, which will make the Administration more effective and also complete its legitimacy and even achieve greater acceptance of its decisions.

All this without forgetting, moreover, that, as *administrative citizenship* is conceived, it integrates public consultation in the decision-making process and responds to the consideration of the user, administered or interested party as a citizen. It should be recalled that by recognising that the administered is also a citizen, the administrative relationship is considered to have a civic dimension. In such a way that the administrative relationship is transformed and becomes one of the means of access to

⁶⁰ As the Conseil d'État has held in *Consulter autrement, participer effectivement*, cit., 92.

citizenship, which implies that citizens have the right to know the Administration -transparency-, to participate in administrative action -participation-, and the Administration must answer to them -accountability-; furthermore, it is understood that compliance with all this will lead to a more effective and efficient Administration -which in turn connects with the objective of *good administration*-, and at the same time with greater legitimacy.⁶¹

As will be seen throughout this paper, these issues are essential in the context in where the debate on using of artificial intelligence in the public sector arises. Thus, the acceptability of artificial intelligence by citizens is crucial, and they must even participate in its design; moreover, transparency is one of the most studied issues concerning artificial intelligence, precisely for various reasons, one of which is accountability. Finally, it is clear to no one that effectiveness and efficiency are, in short, two objectives pursued with the use of this new technology.

Algorithms, in particular, and artificial intelligence, in general, can also contribute to better decision-making by being able to handle a number of data that would be unfeasible for human beings, which, when used properly, can contribute to a more efficient allocation of resources and, finally, can therefore contribute to *good administration*.⁶²

⁶¹ The connection between both concepts has also been pointed out by some authors, such as F. Delpérée, *Rapport de synthèse sur la citoyenneté administrative*, cit., 205, for whom *good administration* is a necessary condition for good citizenship.

⁶² Along these lines, P. Padilla Ruiz, *Inteligencia artificial y Administración Pública*, in *El Consultor de los Ayuntamientos*, vol. 10, 2019, 96-104, states that, if the aim is to improve the lives of citizens and to be more efficient and proactive, saving costs and time, there is no doubt that algorithms and robots must occupy a prominent place in the procedures of any administration.

3. *The administrative reflection of the paradigm shift: from the Weberian model to New Public Governance*

If, as we have already seen, we are currently witnessing a renewed idea of citizenship, in which it is essential to involve citizens in decision-making and, in general, in the life of the Administration, this inevitably connects with another crucial aspect in the functioning of the Administration itself, I am referring to what has come to be known as *new public governance*, i.e., it must be faithfully reflected in a new public management model,⁶³ with comprehensive, innovative, effective, efficient and inclusive public governance being essential in this new context as the cornerstone of the new public management.

Thus, very briefly, in order to understand this new current or idea of understanding the Administration and its interaction with citizens, it is necessary to point out that from the field of Organization Theory and Administration Sciences, different models or paradigms that have guided the work of public administrations are analysed and exposed, that is to say, these are studied as organizations.

In this respect, the following models of public management are often mentioned: the *Weberian* model or PA (*Public Administration*), characterized by bureaucracy; later, with the crisis of the welfare state and the application of *management* techniques, the PM (*Public Management*) model is mentioned; then there is a change of paradigm in which the emphasis is placed on efficiency, and the citizen is conceived as a client, the NPM (*New Public Management*) model; this model is based on participation, transparency and cooperation with citizens, i.e., the integration of governance, which in turn leads to the incorporation of NPS (*New Public Service*), i.e.,

⁶³ See, *inter alia*, in this connection, D. McBride Gonzáles, P. Stephen Junior Valencia Navarro and L. Elcina Mejía Lozano, *La Nueva Gobernanza Pública ¿una nueva manera de gestionar lo público en el siglo XXI?*, in *III Congreso Internacional de Ciencias de la Gestión*, PUCP, Perú, 25, 26 and 27 September 2019.

the co-creation of public services with citizens.⁶⁴ However, it should be borne in mind that this evolution does not imply the complete substitution of one model for another, but rather that on occasions they all coexist in the management of a specific public administration, with a predominance of one or the other.

The link between this question and what has been said above with regard to the idea of a renewed citizenship and, in particular, what administrative citizenship implies is absolutely evident since, after all, the current paradigm of new public governance analyses how the public administration could improve its legitimacy vis-à-vis citizens from a management point of view;⁶⁵ without forgetting that, in turn, citizen participation in administrative life and in the design of public services also contributes to the satisfaction of a good administration, through effectiveness and efficiency, in the sense of better adapting to the demands of society.⁶⁶ And that, therefore, it connects head-on with the use of artificial intelligence, in the idea of constant improvement, even going so far as to propose the existence of a right in this respect or, at least, of a general duty of the Administration to modernize, as understood in the Italian system.⁶⁷

This is, therefore, the starting point here, i.e., the new public governance as an organizational model and its connection to the

⁶⁴ M. De Miguel Molina, A. Bañón Gomis and D. Catalá-Pérez, *Management para las Administraciones públicas*, Universitat Politècnica de Valencia, Valencia, 2017.

⁶⁵ D. Osborne and P. Plastrik, *Herramientas para transformar el Gobierno. Directrices prácticas, lecciones y recursos para revitalizar las escuelas, los servicios públicos y los organismos gubernamentales de todos los niveles*, Paidós, Barcelona, 2003, 16.

⁶⁶ This would also connect to a certain extent with the idea of F. L. Pinazo Hernandis, *Ciencia, burocracia y democracia en las políticas públicas: factores actuales para el análisis y evaluación*, in *Revista de Evaluación de Programas y Políticas Públicas*, UNED, no 7, 2016, 68, that the Government-Administration obtains institutional legitimisation by what it does and not only by its origin.

⁶⁷ A. G. Orofino, *Digitisation and the promotion of good governance*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.

ideas of administrative citizenship and good administration, in order to understand the new landscape in which the debate on the use of AI in the public sphere is embedded.⁶⁸

On the other hand, the so-called *wicked problems* also require more interactive and horizontal governance models capable of associating more actors in the search for solutions, which implies radical changes in the structures and talent of public organizations. Not to mention that this whole phenomenon has had a frontal impact on the public sector, causing public organizations and governments to find other ways of exercising power more in line with the new situation, as they have lost the monopoly of legitimacy in society to define the processes of creating public value autonomously;⁶⁹ as a consequence of all this, they have entered a scenario of shared authority, in which their role, rather than that of exercising power, is to aspire to lead complex interactions to tackle social problems, as has been pointed out by renowned experts.⁷⁰

The original mission of administrations to stabilize societies, protect against vulnerabilities, guarantee real and effective equality, and make the future more predictable, is even more relevant today, but from a different perspective, as the traditional bureaucratic paradigm does not seem to be able to respond successfully to today's challenges.⁷¹

In order to provide an adequate response, administrations need to put into practice a genuine new public governance, integrating not

⁶⁸ A. Antonov, *Gestionar la complejidad: la contribución de la UE a la gobernanza de la inteligencia artificial*, in *Revista CIDOB d'Afers Internacionals*, no. 131, 2022, 54.

⁶⁹ Thus, as J. Villodre, *Innovación pública abierta*, in *Economía. Revista en Cultura de la Legalidad*, no. 17, 2019, 314, points out, open public innovation is a broad concept, which usually refers to the harnessing of internal and external knowledge with the aim of transforming organizations and generating public value.

⁷⁰ See in this respect F. Longo Martínez, *La Administración Pública en la era del cambio exponencial. Hacia una gobernanza exploratoria*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, no. special 3, 56.

⁷¹ *Ibidem*, 60.

only the principles to which the doctrine has been most devoted, i.e., transparency and participation at the government level, but also within the administration itself and making other essential principles effective. In my opinion, these include effectiveness, efficiency, innovation, the gender perspective, and not forgetting new aspects that should be adopted in the Administrations, such as *open data* or artificial intelligence, the subject of study to a large extent in this study.

CHAPTER TWO

THE ETERNAL BALANCING ACT

TABLE OF CONTENT: 1. The need for a proper balancing of multiple bifurcations. – 1.1. Logical AI or connectionist AI? – 1.2. Deployment of IA systems in the material and formal activity of public administrations. – 1.3. Benefits and risks. – 1.4. Regulated powers and discretionary powers. – 1.5. Better services or more control? – 2. Effectiveness *versus* guarantees: a synthesis.

1. *The need for a proper balancing of multiple bifurcations*

The second step of the three into which this paper is divided responds, as has been said, to the duality inherent to administrative law itself, to the difficult search for a constant balance, represented here mainly in the tension between effectiveness and guarantees.

However, it must already be pointed out that nothing is what it seems and that it is not appropriate to identify AI with a supposedly safe and desired objectivity because there is a risk of falling into a dangerous bias towards automation. And, precisely, as jurists, we must question everything and subject it to scrutiny.¹

Nevertheless, let us take it one step at a time. Thus, first of all, it is again necessary not to lose sight of the fact that, as has already been

¹ Regarding the study of the phenomenon of digitisation from multiple perspectives, see, for example, L. Belli and G. J. Guglielmi (eds.), *L'Etat digital: numérisation de l'administration publique et administration publique du numérique*, Berger-Levrault, France, 2022.

said, AI is just another tool at the service of the general interest,² this and no other is the very objective and aim that every Administration must pursue.

On the other hand, it should be remembered that the link between the new tools available (not only AI, but also automation³, digitalization, etc.) and good administration essentially hinges on effectiveness, as has been understood by the doctrine.⁴ This basic principle of administrative action finds constitutional recognition in the emblematic art. 103.1 of the Spanish Constitution.

However, as I have already said, the use of AI will not always necessarily lead to greater efficiency, at least not if it is not done in the most appropriate way.⁵ And perhaps even the cost-benefit of its use cannot -and should not- be assessed in the short or medium term. For this reason, administrative, legal and technical complexity must be taken into account, with no room for improvisation, but

² Regarding general interest, VV. AA, *L'intérêt général. Mélanges en l'honneur de Didier Trubet*, Dalloz, Paris, 2015.

³ In relation to automation, see, among others, the works published in the monographic section of no. 63 (May 2023) of the *Revista General de Derecho Administrativo*.

⁴ M. Fuertes López, *Reflexiones ante la acelerada automatización de actuaciones administrativas*, in *Revista Jurídica de Asturias*, no. 45, 2022, 105-124.

⁵ As stated by C. Castelluccia and D. Le Métayer, *Understanding algorithmic decision-making: Opportunities and challenges*, EPRS, Brussels, 2019, 3, although algorithms are not a recent invention, they are increasingly present in decision support systems. These systems, known as "ADS" (algorithmic decision support systems), often rely on the analysis of large amounts of personal data to infer correlations or, more generally, to derive information that is considered useful for decision making. Human intervention in decision-making can vary and may even be completely out of the loop in fully automated systems. In many situations, the impact of the decision on individuals may be significant, such as access to credit, employment, medical treatment, or court rulings, among other things. Entrusting ADSs with making such decisions or influencing them raises a number of ethical, political, legal or technical issues, which need to be carefully analysed and properly addressed.

rather a commitment to progression, burning through stages and achieving the logic of innovation based on trial and error.⁶

This idea also connects with other elements of the new way of doing things in which we are immersed and to which reference can only be made here, such as the *soft law*,⁷ the so-called legal experiments⁸ or the so-called *clauses de réexamen*,⁹ *review clauses*,¹⁰ *sunset clause* or *clause crépusculaire*,¹¹ used in various systems, *sandboxes*, etc.

Moreover, good administration can either endorse the use of AI or, conversely, discourage it. Or are algorithmic discrimination or opacity¹² or lack of motivation not blatant violations of good governance? Ultimately, again, it all depends on the lens through which you look at it, here on the use of AI.

Furthermore, all of this, bearing in mind that, in any case, the objective is not in itself the use of AI, but the constant

⁶ Conseil d'Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 11.

⁷ S. Labelle and C. Chevret-Castellani, *Réguler les algorithmes et l'intelligence artificielle par le droit souple, entre expression et neutralisation des points de vue*, in G. Julia (ed.), *Colloque Sciences et sens de l'intelligence artificielle*, Dalloz, Paris, 2020, 61-72.

⁸ In this regard, see also the study by the Conseil d'État, *Les expérimentations : comment innover dans la conduite des politiques publiques*, La Documentation Française, Paris, 2019.

⁹ Referred to in Conseil d'État, *Étude annuelle 2020 : Conduire et partager l'évaluation des politiques publiques*, La Documentation Française, Paris, 2020, 147.

¹⁰ In the field of European Union law, see the report of the European Parliament I. Kiendl Krišto and V. Poutouroudi, *Review Clauses in EU Legislation. A Rolling Check-List*, European Parliamentary Research Service, Brussels, 2018.

¹¹ As they are called in Quebec, as explained by B. Lasarre, *Discours d'ouverture : L'évaluation des politiques publiques : quels enjeux aujourd'hui ?* Mercredi 16 octobre 2019, held at the *Conseil d'État* (Salle d'assemblée générale Place du Palais-Royal Paris 1er).

¹² As pointed out by A. G. Orofino, *The Implementation of the Transparency Principle in the Development of Electronic Administration*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 123-142, opacity would be contrary to transparency and accountability.

improvement of the quality of the public services that the Administration provides to citizens, in short, a better achievement of the general interest.

This is precisely the line taken by Italian legislation when it provides for the use of new technologies to achieve greater effectiveness.¹³ Far from the provisions contained in Spanish Laws 39 and 40/2015, which, although they are not yet thinking of the IA, when they refer to the electronic aspect, they do so by imposing it as an obligation, which should not be understood, however, as the ultimate goal, but rather as the necessary counterpoint to the right of citizens to relate electronically with it.

In this respect, a more updated regulation is proposed, in line with the French system, to which I will refer later, because although it is true that a further step has been taken with Article 23 of Spanish Law 15/2022, of 12 July, *Integral para la igualdad de trato y la no discriminación*, in my opinion, it is excessively general, without establishing specific obligations.

Having established these premises, it is then worth addressing, in this world of dualities, of choices between bifurcations, some of the issues present in this topic: symbolic AI -rule-based- or connectionist AI -also called learning AI-; regulated powers or discretionary powers; citizen-friendly activity or control activity; effectiveness and efficiency *versus* transparency and accountability; internal uses and external uses; respect for rights and freedoms *versus the* flexibility necessary for public innovation; risks and benefits; material activity and formal activity; etc.

¹³ In particular, art. 3-*bis* of law 7 August 1990, no. 241, *sul procedimento amministrativo*, amended by decreto-legge 16 luglio 2020, no. 76, per la semplificazione e l'innovazione digitale (converted into law 120/2020) and which refers to the use of telematics, provides that, in order to achieve greater efficiency in their activities, public administrations shall act by means of computer and telematic systems, in internal relations, between the different administrations and between these and private subjects.

1.1. *Logical AI or connectionist AI?*

Starting from the beginning, it is necessary to know what we are talking about when we refer to AI. Many definitions have been offered on the subject, but trying to delimit such a changing reality, especially when the very name “artificial intelligence” is already very evocative, is not an easy task. And therefore, a concept as generic and evolving as this one lends itself particularly poorly to adopting a legal definition.¹⁴

Moreover, the European Union itself, in the draft AI regulation,¹⁵ initially proposed -April 2021- a definition based on three aspects: nature, design method and function.¹⁶ However, already in December 2021, the Slovenian presidency proposed to qualify it in order to reduce its scope of application, opting for another definition, according to which, “an artificial intelligence system is a system which: (i) receives data and inputs from machines and/or humans, (ii) infers how to achieve a given set of human-defined goals using learning, reasoning or modelling implemented with the techniques and approaches listed in Annex I of the aforementioned draft

¹⁴ As discussed in OECD, *Artificial Intelligence in Society*, OECD Publishing, 2019, the technical landscape of artificial intelligence (AI) has been transformed since 1950, when Alan Turing first questioned the ability of machines to think.

¹⁵ See on this subject, among others, A. Bensamoun and G. Loiseau (eds.), *Droit de l'intelligence artificielle*, 2nd ed., LGDJ, Paris, 2022; or A. Billion, *Sous le règne des machines à gouverner. Le droit entre intelligence artificielle et raison naturelle*, Bruylant, Brussels, 2022.

¹⁶ Specifically, according to this definition, artificial intelligence systems are characterised by their nature (software), the methods of their design (one of the approaches listed in Annex I of the proposal), which encompasses machine learning approaches (including supervised, unsupervised and reinforcement learning, using a wide variety of methods, including deep learning), logic and knowledge-based approaches (including knowledge representation, inductive (logic) programming, knowledge bases, inference and deduction engines, (symbolic) reasoning, and expert systems); and function (generation of results based on human-defined objectives).

regulation and (iii) generates results in the form of content (generative artificial intelligence systems); predictions, recommendations or decisions, which influence the environments with which they interact”.¹⁷

Bearing in mind this broad definition, as well as the idea that this work does not stick to it -since there are various stages and nuances in this evolution from bureaucracy to AI- it is clear that this panoply of tools includes both what from a narrower perspective are considered AI systems, i.e., automatic or automated learning (so-called connectionist AI, *machine learning* or even *deep learning*), feeding the machine with examples to deduce the relevant rules to solve a problem, and from a broader perspective, systems whose operating rules are explicitly parameterized by humans (so-called symbolic AI), but which have a certain freedom to determine the satisfactory or optimal solution to a complex problem. Thus, along these lines, the French *Conseil d'État* uses the term “AI systems” in the sense of a set of digital tools at the service of humans.¹⁸

Thus, it has even been claimed that the symbolic AI system is explicitly programmed by experts and that the connectionist¹⁹ is trained.²⁰ And although the latter is even older, it has become successful in the last ten years.

¹⁷ After several stages, the European regulation on AI is moving forward, with the hope that it can be approved in September. In particular, on 14 June, the European Parliament adopted its position on the regulation of AI.

¹⁸ Conseil d'Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 5.

¹⁹ The training (or learning) phase on a training dataset allows the model to be built. This is followed by a validation phase on a separate validation dataset, which allows the performance of the model against the target set and, more broadly, the “behaviour” of the system to be assessed. In the case of a static (or frozen) artificial intelligence system, the model does not change once validated and put into production. In contrast, a dynamic or learning AIS will be updated: either *ad hoc*, periodically (incremental learning), or permanently (continuous learning or feedback loop). A distinction must also be made between supervised and unsupervised, self-supervised and reinforcement learning.

²⁰ F. Chollet, *L'apprentissage profond avec Python*, France, machine learning.fr, 2020, 7.

In this broader sense, the AI system is presented as “algorithmic processing”²¹ or even more simply reduced to the algorithm, which, however, is only one component. An algorithm is classically defined as a set of instructions and operations to solve a category of problems, i.e., the steps that convert input data into output data, hence into an answer.²² When the output is numerical, it is referred to as a regression algorithm, in contrast, when it is a category, it is referred to as a sorting algorithm.

Following the idea put forward by the French *Conseil d’Etat*,²³ one can speak of an (algorithmic) model to designate the algorithm designed by the AI engineer to perform a specific task using one of these tools. The model is thus the heart of the AI system: it is the complete description of the factory that will transform the raw material (input data) into a finished product (the output). To be operationally realizable, the model is transcribed by a programmer or developer, or even by an AI system, into a programming language in the form of source code. This program is, in a sense, the materialization of the model that constitutes the system, the text of the recipe, the assembly instructions and the complete reasoning guide, which can be executed by a computer.

Thus, constructing the algorithmic model requires two key resources: data and technical infrastructure (processors). In conclusion, it could be said that AI refers to the modelling of

²¹ This concept, which is truly broad and to which I will refer later on, is at the heart of the regulation of the obligation of transparency in the French *Code des relations entre le public et l’administration* (CRPA).

²² In particular, the Diccionario de la Real Academia de la Lengua Española defines an algorithm as “an ordered and finite set of operations that makes it possible to find the solution to a problem”. Similarly in the French Larousse dictionary, which also adds that an algorithm can be translated, thanks to a programming language, into a program executable by a computer. This means that an algorithm can exist independently of computer processing, as stated in Etalab, *Expliquer les algorithmes publics*, 2022 (guides.etalab.gouv.fr), 5.

²³ In its 2022 study on the subject.

certain human cognitive functions and their implementation by a machine (ability to memorize, speak, process information, learn, act, make decisions, plan, interact with the environment...), and progress even allows us to glimpse in the future the possibility of reacting to emotions, i.e., emotional intelligence.

Nevertheless, AI is not endowed with common sense, self-awareness or the ability to correct itself fully autonomously. A general AI that is able to combine cognitive functions and develop autonomous capabilities for complete imitation of human intelligence remains, to this day, science fiction.

It should also be noted that there is no absolute correlation between what AI and humans can do, as simple tasks for one may be complex or impossible for the other, and vice versa. Thus, for example, the use of these tools for routine and repetitive tasks will allow humans to engage in other tasks that require their unique intelligence.²⁴

On the other hand, as to what AI is, it is worth mentioning that from another perspective, it also refers to a discipline or, rather, a theoretical and practical interdisciplinary field that aims to understand the mechanisms of cognition and reflection and their imitation by hardware and software devices, to assist or replace, human activities.²⁵ A field of research not only in mathematics and computer science but also in cognitive sciences, linguistics, philosophy, sociology, economics or even law and ethics.

For the European Commission's High Level Expert Group on AI,

²⁴ Conseil d'Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit.

²⁵ As defined in the *Avis* published in the Official Journal of the French Republic on 9 December 2018 (NOR: CTNR1832601K) on *Vocabulaire de l'intelligence artificielle (liste de termes, expressions et définitions adoptés)*. For its part, the French *Conseil d'État* in its 2017 study (*Puissance publique et plateformes numériques : accompagner l'“ubérisation”*) on public power and digital platforms, defined AI as a science whose purpose is for a machine to perform tasks that traditionally require human or animal intelligence.

AI refers to human-designed systems that, given a complex goal, act in the physical or digital world by perceiving their environment, interpreting the structured or unstructured data collected, reasoning on the knowledge derived from that data and deciding the best action(s) to take (within predefined parameters) to achieve the given goal. AI systems can also be designed to learn to adapt their behaviour by analysing how the environment is affected by their previous actions. While as a scientific discipline, AI comprises several approaches and techniques, such as machine learning (of which deep learning and self-learning are concrete examples), automatic reasoning (which includes planning, scheduling, knowledge representation and reasoning, search and optimization) and robotics (which includes control, perception, sensors and actuators, as well as integration of all other techniques in cyber-physical systems).²⁶

Returning to the logic of duality, let us recall that there are two basic approaches to AI: symbolic or rule-based AI, which was dominant from 1950 to 2000; and connectionist or *machine learning* AI, which has been gaining more prominence in recent years.

And going down to more detail, we could talk about logical AI, statistical AI, connectionist AI, machine learning or sub-symbolic AI, and neural networks²⁷ and deep learning.

I will briefly outline each of them in order to be able to make concrete proposals for their use in the third part of this paper.

Logical or symbolic AI systems are rule-based and reproduce logical reasoning of a deductive type, executing programmed rules, reflecting the knowledge we have of the links between two pieces

²⁶ Groupe d'experts de haut niveau sur l'intelligence artificielle, *Une définition de l'AI : principales capacités et disciplines scientifiques*, Commission européenne, Brussels, 2018.

²⁷ See the interesting work by S. Lacroix-de Sousa, P. Larricq and J. Mestre (eds.), *Cerveau(x) et Droit. Neurodroit, algorithmes, intelligence artificielle, objets connectés, centres de décision*, LGDJ, Paris, 2022.

of data.²⁸ This system has only a limited “creative” capacity: the operations it performs are predetermined in an explicit model.

Ultimately, the historical ambition of symbolic AI is to identify and translate into software the rules that “rule the world”.²⁹

Statistical AI, on the other hand, consists of identifying, classifying and weighting the influence of a limited set of explanatory variables of a phenomenon (probability of non-payment, fraud, diagnosis of illness, etc.). In turn, there are two types of AI: frequentist statistics (probability that a predetermined theory or rule will produce a result) and Bayesian statistics (assessing the probability that a theory or rule is true given the observations made).

This probabilistic logic clearly distinguishes this approach from the rule-based approach, which in principle leaves no room for chance; however, it is difficult to distinguish from automatic learning.

The third major category is connectionist AI, also known as machine learning or sub-symbolic AI. Also known as *machine-learning*, it differs from the symbolic (rule-based) approach in that the model does not result from the predetermination of logical instructions that assign a result to the input data but is defined by the machine itself from a large amount of data that has allowed it to identify relationships, recurrences, correlations, close links between them and, therefore, rules. Very schematically,

²⁸ Rules representing knowledge in an application domain are stored in a knowledge base. An inference engine selects the relevant rules from this database and applies them to solve the problem at hand, depending on the facts presented to it. Thus, for example, if a citizen applies for a subvention, the system can check that the conditions for the subvention are met, and consequently recommends a decision or issues a decision itself. Thus, for example, in cases where the subsidy’s granting depends solely on verifying the fulfilment of objective requirements such as income, the following operation takes place: “if the income is lower than X, then you are entitled to the subvention”.

²⁹ Conseil d’Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 30.

connectionist AI deduces rules from the examples provided to it, while symbolic AI produces results from the programmed rules.

Thus, for example, an AI system could be created to assist in the process of awarding a contract,³⁰ by transcribing into computer instructions what is laid down in the specific regulations and tender (symbolic approach); or to build a model that deduces these rules from the exploitation of a very large number of files, i.e., “by experience” (connectionist approach), for example, with regard to the cases of non-compliance that trigger the refund procedure in the field of subventions.

Finally, it is worth mentioning neural networks and deep learning. This is precisely where the name connectionist AI comes from in the field of automatic or automated learning, since it is made up of at least three layers: the input layer receives the data, the hidden layer processes it and the output layer offers the result. When there is more than one hidden layer, it is called deep learning, e.g., image recognition.

After these brief explanations, in order to understand what we are talking about when we refer to AI and in particular, its use in the field of public action,³¹ let us return to the initial question: symbolic AI or machine learning?

It is a difficult choice for which there is no “automatic or automated” answer without prior analysis of the advantages and disadvantages. It is now sufficient to simply retain a key aspect for the fundamental theme of this work, i.e., the tension or balance between effectiveness and safeguards.

³⁰ In fact, such systems are already being used in the field of procurement, see, for example, J. C. Tejedor Bielsa, *Transformación digital, blockchain e inteligencia artificial. Referencias y experiencias en Aragón*, in *European Review of Digital Administration & Law*, vol. 2, Issue 2, 2021, 67-69; or E. Gamero Casado, *Supervisión, auditoría y control jurídico en la contratación pública de soluciones de robotización e inteligencia artificial para soporte a la toma de decisiones*, in *Observatorio de Contratación Pública*, 11/10/2022.

³¹ On the impact of AI on public action, from a comparative perspective, see, VV. AA., *L'action publique et le numérique*, Société de législation comparée, Paris, 2021.

Very schematically, and taking into account multiple exceptions and particularities derived from the complexity of the models, the truth is that symbolic AI has, in principle, the great merit of being explainable since it is based on rules defined by humans, which is essential to ensure both accountability in general,³² and the motivation of concrete decisions in particular; unlike *deep learning*,³³ whose patterns are beyond human understanding³⁴ and which is halfway to *machine learning*.

In my view, this is an absolutely crucial issue for maintaining the balance between risks and benefits, between respect for rights³⁵ and freedoms and innovation.³⁶ Thus, although symbolic AI cannot incorporate an extremely large number of rules and, instead, lends itself to solving specific problems in a sufficiently standardized environment, it clearly has the advantage of explainability. Although it has been pointed out as a disadvantage that updating these rule-based systems can be complex and extremely costly, as neural

³² The connection between explainability and accountability is also addressed by A. Asatiani et al., *Challenges of Explaining the Behavior of Black-Box AI Systems*, in *MIS Quarterly Executive*, vol. 19, Issue 4, Article 7, 2020.

³³ As E. Copeland, *20 questions for public sector use of algorithmic decision making*, in *Government Innovation*, 28 June 2018, explains that the use of algorithms can carry significant risks of opacity, because even if viewable, the code may be essentially uncheckable if it's highly complex; where code continuously changes based on live data; or where the use of neural networks means that there is no single "point of decision making" to view.

³⁴ As E. Gamero Casado, *Necesidad de motivación e invalidez de los actos administrativos sustentados en inteligencia artificial o en algoritmos*, in *Almacén de Derecho*, 2021, has rightly pointed out, this type of AI cannot be used as long as it is not explicable, because it does not comply with the duty to state reasons.

³⁵ F. Dallem, M. Quéméner and C. Wierre, *Quels droits face aux innovations numériques ?*, Gualino, Paris, 2020.

³⁶ As the Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 11, flexibility in the rules is necessary in this respect, which brings to mind *soft law* and legal experiments, to which I have already referred.

networks, for example, learn to perform a task based on new data provided to them, the public sphere of the use of symbolic AI is likely to become more manageable. However, it must not be forgotten that it is not harmless either, and at the same time, the use of machine learning should not be dismissed out of hand, as everything needs to be nuanced.

Moreover, many services combine both types of AI, e.g., *chatbots*.³⁷ This, in turn, leads to another duality, namely the necessary differentiation between material and formal activity, to which I will now turn.

In any case, it must be borne in mind that AI systems cannot always do the same things as humans; sometimes, they are able to do things that humans cannot, but other simple things that humans find difficult or impossible. It is, therefore, necessary to discard the cognitive bias that tends to deduce the supposed general superiority of the machine over the human from the sole circumstance that the former is able to perform certain specific functions with superior performance to the latter. For there is no direct correlation between the simplicity of the task for a human, on the one hand, and the feasibility of the machine, on the other. It is a question, as I have already said, of complementing and not so much substituting.

In short, AI is already exerting a significant influence on the functioning of our society and is undoubtedly set to do so with even greater intensity, but the fear that machines will dominate the world or replace the work of humans with autonomy must be banished, at least in the current state of affairs.

³⁷ On such tools see N. Aoki, *An experimental study of public trust in AI chatbots in the public sector*, in *Government. vernment Information Quarterly*, vol. 37, Issue 4, 2020, 101490.

1.2. *Deployment of IA systems in the material and formal activity of public administrations*

Although the third chapter of this study will analyse the possible specific uses of IA in the public sector, it is now appropriate to refer to some general questions regarding the difference between the material and the formal activity of the administration for the purposes of the use of these systems.

In order to undertake this task, I will, first of all, outline some essential questions regarding the impact of good administration in both types of activity, as this will help us to understand the path to follow in the use of AI systems in the public sector, given that we cannot forget that the use of these new tools must be aimed at achieving good administration, as was explained in the first chapter. Next, a very brief reference will be made to some of the functionalities of these systems in the sphere of the Administration, to finally go on to mention certain determining aspects in the selection of specific applications of AI in the public sector and, in particular, in the choice between its use in material activity or in formal or formalized activity, since although one is not exclusive of the other, both have nuances that need to be known.

As has already been advanced in offering a possible notion of good administration in the first chapter of this study, efficiency and effectiveness play a crucial role, which, in turn, stand as one of the two extremes that are in constant tension in this issue.

Precisely some of the functionalities of good administration, with which the use of AI systems and digital tools, in general, must be unfailingly linked, are connected to both types of administrative activity. I am referring, on the one hand, to good functioning; on the other hand, to good administrative decision-making, where the procedure plays a crucial role, and to which I will refer in more detail when talking about discretionary powers; and, finally, also to effective administrative protection, as something more than a set of procedural rights.

At the end of the day, it is a question of rationality in decisions, of achieving the effectiveness required by Art. 103 of the Spanish

Constitution through the best adoption of administrative measures, of achieving efficiency by means of an optimal functioning of the Administrations with the resources at their disposal, which brings us back to the starting point.

Therefore, it is worth referring very briefly, firstly, to the proper functioning of the administration, an issue in which relevant aspects such as efficiency, standards and *soft law*, administrative simplification and digital transformation all come together.

In this respect, it is worth recalling very briefly that Hauriou himself, within the practical application or consequences attached to the notion of good administration, included the idea that this implied that the Administration should act correctly in the sense, among others, of adequately providing public services;³⁸ which, however, does not imply an unlimited demand. This idea connects with the notion of good administration in the sense of balanced weighting and adaptation of the means at one's disposal,³⁹ in line with what was said at the time by the Dean of Toulouse himself⁴⁰ and, therefore, with efficiency.

Indeed, this requirement of good functioning and adequate use of means necessarily connects with the principle of efficiency, which was already pointed to early on in Italian doctrine -linking it to art. 97 of the Italian Constitution⁴¹- as well as in the theory of good administrative behaviour by H. A. Simon, who considers that the

³⁸ M. Hauriou, *La jurisprudence administrative de 1892 à 1929. D'après les notes d'arrêts du recueil sirey réunies et classées*, Tome Troisième, Libraire du Recueil Sirey, Paris, 1929, 568.

³⁹ To which Professor R. Boustia refers, *Pour une approche conceptuelle de la notion de bonne administration*, in *Revista digital de Derecho administrativo*, no. 21, first semester /2019, 23.

⁴⁰ Who, as already mentioned, understood good administration as acting in the best possible way, using the best means available to guarantee the desired end.

⁴¹ Indeed, for Italian doctrine, it is a general principle of administrative organization, to which art. 97 of the Italian Constitution refers when it speaks of the good functioning of the Administration, and which even prior to the

principle of efficiency is characteristic of any activity that rationally aims to maximize the achievement of certain ends with the use of scarce means. The aforementioned author considers that it is as characteristic of economic theory as it is of administrative theory and that efficiency should be considered as a definition rather than a principle, in particular, it is a definition of what is understood by “good” or “correct” administrative behaviour.⁴²

From this perspective, good administrative functioning cannot be dissociated from the means available to the administration. Thus, it is not an abstract idea of ideal good functioning but one that is adapted to the means available.⁴³

Furthermore, this is linked to decision-making since having limited means at one’s disposal will determine the correct choice of means or how to use them optimally. This, in turn, is linked to administrative organization and also -although not only- to the economic issue, expenditure. Without forgetting that the social State itself, which the Spanish Constitution proclaims, entails a mandate to optimize the available resources, even if this does not lead to the existence of an irreversibility clause, as we have already had occasion to explain at another time.⁴⁴

Undoubtedly, the deployment of AI systems and, in general, of new technologies plays an essential role in these means, which can, among other things, enable more appropriate choices to be made,

Constitution was used by classical doctrine, as explained by D. Vese, *L’efficienza dell’organizzazione amministrativa come massimizzazione dei diritti fondamentali*, cit.

⁴² Which, in his view, does not say that achievements must be maximized, but simply states that maximization is the goal of administrative activity, and that administrative theory must reveal under what conditions maximization occurs, in H. A. Simon, *Administrative behavior: a study of decision making processes in administrative organizations*, cit., 38-39.

⁴³ It is precisely the idea put forward by R. Bousta, *Essai sur la notion de bonne administration in Droit public*, cit., 461, that *good administration* is the considered/balanced adaptation of the means of the public administration.

⁴⁴ E. M. Menéndez Sebastián, *La Administración al servicio de la justicia social*, Iustel, Madrid, 2016.

provide a glimpse of the possible consequences of public decisions, rationalize the resources used, etc. In short, facilitates the provision of more effective and efficient services.

On the other hand, all this connects with innovation in public services, people-based design, and co-creation, in line with the current scenario in which public management finds itself, i.e., the *new public governance*.

As already noted, the link between this new model of public management and the idea of a renewed citizenship and, in particular, of what administrative citizenship implies is absolutely evident, given that the new public governance implies, among other issues, how the public administration could improve its legitimacy in the eyes of citizens from a management point of view.⁴⁵ In this respect, it highlights the participation of citizens in administrative life and the design of public services, which in turn contributes to the satisfaction also of good administration, through effectiveness and efficiency, in the sense of being better adapted to the demands of society.⁴⁶

It should also be pointed out that, within public organizations, it is necessary to distinguish between public policies, where the strategic approach is essential,⁴⁷ and public services, as the executing result of the former, and where the aforementioned idea of co-creation with citizens⁴⁸ has strongly emerged, together with the need to

⁴⁵ D. Osborne and P. Plastrik, *Herramientas para transformar el Gobierno. Directrices prácticas, lecciones y recursos para revitalizar las escuelas, los servicios públicos y los organismos gubernamentales de todos los niveles*, Paidós, Barcelona, 2003, 16.

⁴⁶ This would also connect in a way with the idea of F. J. Pinazo Hernandis, *Ciencia, burocracia y democracia en las políticas públicas: factores actuales para el análisis y evaluación*, in *Revista de Evaluación de Programas y Políticas Públicas*, UNED, no. 7, 2016, 68, that the government-administration obtains institutional legitimización by what it does and not only by its origin.

⁴⁷ In this regard, see, for example, B. Ramos Ramos and C. Sánchez Naranjo, *La planificación estratégica como método de gestión pública: experiencias en la Administración española*, INAP, Madrid, 2013.

⁴⁸ R. B. Denhardt and J. V. Denhart, *The new public service: serving rather than steering*, in *Public Administration Review*, vol. 60, Issue 6, 2000, 549-559.

introduce the evaluation⁴⁹ to know the degree of fulfilment of the objectives.⁵⁰

Thus, it is worth emphasizing the need for the principles of open government: transparency, participation, public ethics and accountability, to be implemented in the administrative sphere and not remain in the sphere of political decisions, but, in addition, in this specific area of the Administration and its functioning, it is necessary to address or introduce other equally relevant aspects connected to these principles, such as effectiveness, efficiency and innovation in management, as well as its link with digital transformation.

Along these lines, participation in administrative life -which is crucial to the idea of administrative citizenship described in the first chapter- can be translated into expressing citizens' opinions on public services, to which new technologies contribute. Thus, for example, there are applications that allow any citizen who becomes aware of a defect in a public road to report it immediately to the Administration responsible, which also entails the involvement of citizens in the idea of commitment that should permeate the notion of citizenship. On the other hand, participation is also channelled through the evaluation of the services themselves, which in turn should be made public, as it enhances accountability and transparency, as well as the possible improvement of what does not work as planned or desired.

⁴⁹ In this regard, it is worth bearing in mind Spanish Law 27/2022, of 20 December, on *Institucionalización de la evaluación de políticas públicas en la Administración General del Estado*, which begins by explaining that the evaluation of public policies is currently an essential tool for improving government actions, as it favors informed decision-making and serves as an element for proposing possible corrections. He went on to say that it is also a fundamental instrument for more effective and efficient public policies and, ultimately, it is an element for deepening democracy as it serves to ensure accountability to the public.

⁵⁰ And not so much or not only of the commitments, as has been the case in the past.

A further step is offered with the aforementioned co-creation, which in turn has as its background or basis the idea that those who receive a decision or a service know better than anyone else the needs to be covered, contributing to better decision-making and more efficient management. Various instruments point in this direction, such as *sandboxes*, innovation laboratories,⁵¹ *hackathons*,⁵² behavioural sciences applied within the Administration, for example, *nudging*,⁵³ among others, whose development is also largely based on new technologies.

It is not my intention, as it goes far beyond the scope of this paper, to analyse and explain the various types of innovation, the practices already carried out by some administrations,⁵⁴ etc., but simply to

⁵¹ Note, for example, *NovaGob.Lab* in Spain, *LAAB* in Aragon, *i.lab* in Barcelona, etc. On the role of these innovation labs, see also S. Acevedo and N. Dassen, *Innovando para una mejor gestión. La contribución de los laboratorios de innovación pública*, Banco Interamericano de Desarrollo, 2016.

⁵² A *hackathon* lasts between 24 and 48 hours and is dedicated to a specific topic or challenge. Participants work in small groups in a unique environment that encourages creative thinking and leads to surprisingly innovative new concepts, ideas and prototypes. Examples can be found at <https://eurecat.org/es/hackathon-reunira-24-horas-expertos-blockchain-innovar-recogida-selectiva-residuos/>; [https://www.madrid.es/portales/munimadrid/es/Inicio/Actualidad/Noticias/Nace-Reactiva-Madrid-el-laboratorio-de-innovacion-de-la-ciudad/?vgnnextfmt=default&vgnnextoid=e5c8252ee1791710VgnVCM2000001f4a900aRCRD&vgnnextchannel=a12149fa40ec9410VgnVCM100000171f5a0aRCRD](https://www.madrid.es/portales/munimadrid/es/Inicio/Actualidad/Noticias/Nace-Reactiva-Madrid-el-laboratorio-de-innovacion-de-la-ciudad/?vgnnextfmt=default&vgnextoid=e5c8252ee1791710VgnVCM2000001f4a900aRCRD&vgnnextchannel=a12149fa40ec9410VgnVCM100000171f5a0aRCRD); <https://www.eventbrite.es/d/france-paris/hackathon/>, etc.

⁵³ In this regard, it is worth highlighting both the work of Professor J. Ponce, for example, *Nudging, simplificación procedimental y buen gobierno regulatorio: el Derecho Administrativo del Siglo XXI y sus relaciones con las ciencias sociales*, in M. Miguez Macho, M. Almeida Cerredá and D. Santiago Iglesias (coords.), *La simplificación de los procedimientos administrativos. Actas del IX Congreso de la Asociación Española de Profesores de Derecho Administrativo*, Escola Galega de Administración Pública, 2014, 191-216; as the *NMR Network nudging aplicado a la mejora de la regulación* (<https://rednmr.wordpress.com/red-2/>); Ponce Solé J. (ed.), *Nudging's Contributions to Good Governance and Good Administration - Legal Nudges in Public and Private Sectors*, EPLO, Athens, 2022; etc.

⁵⁴ It is worth highlighting, among others, for example, the guide developed by

briefly highlight the connection between innovation, the new public governance and the digital transformation that our society is undergoing and from which administrations cannot remain on the sidelines.⁵⁵

Secondly, it is also worth referring very succinctly to good administrative decision-making. Thus, it is clear that it will be crucial for the administration to decide correctly in order to be able to act similarly. And in this regard, as already mentioned, it is necessary to take into consideration not only the analysis of legality but also the needs of the public, as well as the results of evaluations, where appropriate, the technical opinion of experts and, in short, an adequate handling of data.

It is also a prior perspective, that is to say, not to control what the administration has already decided but to ensure that it has the necessary means to make that decision as adequately as possible. Finally, as the doctrine⁵⁶ has said, the application of rules carried

the Andalusian Administration, *InnoGuía- Guía para innovar en la Junta de Andalucía*, Instituto Andaluz de Administración Pública, 2018, which sets out nine phases to follow in innovation: mapping opportunities, choosing the innovation challenge, creating the team, thoroughly researching the challenge, imagining solutions, defining the project, executing the task plan, carrying out the final validation and implementing and scaling the solution. Also indicate the collaborative document, *Innovación pública abierta: ideas, herramientas y valores para participar en la mejora de la Administración*, Diputació de Castelló. Or the works, also from a practical point of view, by M. De Miguel Molina, A. Bañón Gomis and D. Catalá Pérez, *Management para las Administraciones Públicas*, Universitat Politècnica de Valencia, Valencia, 2017, or J. Karke, *Co-creating Digital Public Services for an Ageing Society. Evidence for User-centric Design*, Springer, Bremen, Bremen, 2021, etc.

⁵⁵ This connection is highlighted by I. Martín Delgado (dir.), *La reforma de la Administración electrónica: una oportunidad para la innovación desde el Derecho*, INAP, Madrid, 2017, by the same director *El procedimiento administrativo y el régimen jurídico de la Administración Pública desde la perspectiva de la innovación tecnológica*, Iustel, Madrid, 2020; and by M. A. De Bas Sotelo and M. García-Montecavaro Martín, *Buenas prácticas en la innovación pública. 50 + 1 Experiences for Transformation*, Wolters Kluwer, Madrid, 2021.

⁵⁶ In this regard, it is worth highlighting the interesting work of J. M. Rodríguez

out by the administration and the judges is not identical. Therefore, it is necessary to differentiate these two moments and the role of the notion of good administration in each one of them. In short, the need to understand the distinction between rules of conduct and rules of control.⁵⁷

And the notion of good administration implies a good administrative decision, which entails an adequate treatment of the facts and the applicable rules, the identification of the problem to be solved, as well as the interests at stake, an adequate weighting of all this,⁵⁸ and, in conclusion, through the appropriate procedure⁵⁹ and due,⁶⁰ as well as the use of studies of various kinds, statistics,

De Santiago, *Metodología del Derecho administrativo. Reglas de racionalidad para la adopción y el control de la decisión administrativa*, Marcial Pons, Madrid, 2016, who goes so far as to state on p. 19 that whoever, in order to construct a methodology for the application of the Law by the Administration, were to use the template of a traditional treatise on the judicial application of rules and merely include the administrative body, by substitution, in the position that the author of the treatise gave to the judicial body, would surely obtain as a result a grotesque deformation of reality.

⁵⁷ In this regard, cite also the work of J. M. Rodríguez De Santiago, *Normas de conducta y normas de control. Un estudio metodológico sobre la discrecionalidad planificadora, la ponderación y su control judicial*, in *InDret*, January, 2015.

⁵⁸ In general, the importance of weighting should be emphasized, not in vain in the very precision of the notion of good administration plays a predominant role, as well as in particular in decision-making; in relation to this last aspect, reference should be made to the aforementioned study by J. M. Rodríguez De Santiago, *Metodología del Derecho administrativo. Reglas de racionalidad para la adopción y el control de la decisión administrativa*, cit., 129-148.

⁵⁹ Regarding the importance of procedural simplification, see, among others, E. Gamero Casado (coord.), *Simplificación del procedimiento administrativo y mejora de la regulación. Una metodología para la eficacia y el derecho a la buena administración*, Tirant lo Blanch, Valencia, 2014. Or on the subject in relation to e-administration see F. Gutiérrez Rodríguez, *El derecho de la ciudadanía a una buena administración. La Administración electrónica*, Diputación de Málaga, 2009.

⁶⁰ In this regard, it is worth citing, among others, the thesis of J. Ponce Solé, *Deber de buena administración y derecho al procedimiento administrativo debido. Las bases constitucionales del procedimiento administrativo y del ejercicio de la discrecionalidad*, Lex Nova, Valladolid, 2001.

or any other element not necessarily or strictly legal, in order to be able to know the different existing options for achieving the desired end and the data necessary to choose the one that best and, in particular, most efficiently, with the means available, will satisfy the general interest without undermining or respecting private interests, after weighing up the interests present in the case and the consequences that these different options entail.⁶¹

In conclusion, it is a question of seeking a reasoned decision,⁶² weighted and balanced, careful with all the interests present, reasonable and reasoned, taken through the appropriate procedure -which should be suitable for that purpose-,⁶³ and with due diligence,⁶⁴ as well as taking place within a reasonable period of time, since a good decision cannot be late.⁶⁵ The best doctrine and

⁶¹ Hence, the importance of evaluation, e.g., impact studies or similar.

⁶² This motivation should focus precisely on the presentation of the various options, their consequences and, therefore, the reasons for choosing the one that is best understood.

⁶³ This is why it is important to design appropriate procedures that not only respect the rights of those concerned, but also provide mechanisms that really make it possible to be aware of all possible options, their consequences and, therefore, to choose the best one.

⁶⁴ In this regard see, among others, J. Ponce Solé, *La lucha por el buen gobierno y el derecho a una buena administración mediante el estándar jurídico de diligencia debida*, cit.

⁶⁵ The reference to reasonable deadline is included in Art. 41 of the Charter of Fundamental Rights of the European Union itself, as well as in the case law of the CJEU and also in the case law of the Spanish *Tribunal Supremo*. Thus, for example, in the judgment of the European Court of Justice of 27 November 2001, *Z v Parliament*, C-270/99 P, ECLI:EU:C:2001:639, it is stated that the principle of good administration consists in the obligation to handle disciplinary proceedings with diligence and to act in such a way that each procedural act is carried out within a reasonable time in relation to the preceding act; or in the judgment of the Court of First Instance of the European Communities of 9 September 2009, *Territorio Histórico de Álava - Diputación Foral de Álava and Others v Commission of the European Communities*, T-30/01 to T-32/01 and T-86/02 to T-88/02, ECLI:EU:T:2009:314, dealing with the issue of this principle in connection with the element of reasonable time. This aspect as an integral part

case law have already referred to all this, to which reference should now be made, as it is perhaps the most studied aspect of the notion of good administration.⁶⁶

Moreover, in this task, the application of specific AI systems can be of great help, given the data handling that this allows, without forgetting other functionalities, such as, for example, that of simulators.

On the other hand, as has already been pointed out, in order to be able to adopt good administrative decisions, it is essential to have adequate procedures, but, in turn, the procedure is also a guarantee for the interested parties. The relevance of due procedural in the notion of good administration is unquestionable; in this respect, it is sufficient to read the content of Art. 41 of the Charter of Fundamental Rights of the European Union, where it has been

of good administration is also referred to in the judgment of the SC 4115/2019 of 18 December 2019, Appeal no. 4442/2018 (ECLI: ES:TS:2019:4115).

⁶⁶ Thus, by way of example, it is worth mentioning, among others, the extensive work of J. Ponce Solé, *Deber de buena administración y derecho al procedimiento administrativo debido. Las bases constitucionales del procedimiento administrativo y del ejercicio de la discrecionalidad*, cit.; *La discrecionalidad no puede ser arbitrariedad y debe ser buena administración*, in *Revista Española de Derecho Administrativo*, no. 175, 2016, 57-84; *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración. Análisis teórico y jurisprudencial del rescate de concesiones*, in *Cuadernos de Derecho Local*, Fundación Democracia y Gobierno Local, February 2016; J. Ponce Solé and M. Villoria Mendieta (eds.), *Anuario del Buen Gobierno y de la Calidad de la Regulación 2019, La calidad normativa a diez años de los efectos vinculantes de los efectos vinculantes de la Carta de Derechos Fundamentales de la Unión Europea y de la transposición de la Directiva de Servicios y a cinco años de aplicación de la Ley de Garantía de la Unidad de Mercado*, Fundación Democracia y Gobierno Local, Madrid, 2020; J. Barnés, *Buena administración, principio democrático y procedimiento administrativo*, no. 21, 2019, 2019, 77-123; E. Fragale, *El derecho (europeo) a la buena administración y el problema de la autonomía de las pretensiones participativas en el ordenamiento italiano*, in *Revista Digital de Derecho Administrativo*, no. 21, 2019, 125-151, in particular 147-148; R. Bousta, *Essai sur la notion de bonne administration en Droit public*, cit.; or the same author's *Pour une approche conceptuelle de la notion de bonne administration*, cit, 23-45, in particular, 34 and 40; J. R. Chaves, *Principio de buena administración: nuevo paradigma de control de la discrecionalidad*, in *delJusticia.com*, 7 June 2016, etc.

configured as a fundamental right, which means recognizing the citizen a specific subjective legal position before the public authority.⁶⁷

This question is, therefore, relevant for several reasons. Firstly, because this heading refers to both the material activity and the formal activity of the Administration, being inevitable, in the second case, to refer to the administrative procedure, which, in turn, and secondly, is one of the guarantees that come into tension with effectiveness; which is not without a certain degree of irony, since precisely another of the purposes of the procedure is, in fact, to allow better decision-making, which in turn results in that effectiveness.

From this perspective, the notion of good administration connects with what has come to be called effective administrative protection,⁶⁸ which implies not only strict compliance with the established procedure and even with the specific rights referred to in the aforementioned art. 41 of the Charter, but also entails something more, as the Spanish *Tribunal Supremo* has rightly indicated,⁶⁹ since, in its opinion, for example, the notion of good administration from this perspective would clash with an unreasonable or disproportionate delay in administrative action, even if the legally established deadlines were complied with.

Therefore, good administration from the perspective of effective administrative protection implies, on the one hand, respect for the procedural rights that are included in the aforementioned right; however, on the other hand, compliance with due procedural is not sufficient if this does not comply with the notion of good administration, that is, if an equitable, impartial and timely

⁶⁷ As rightly explained by J. Tornos Más, *El derecho a una buena administración*, Sindicatura de Greuges de Barcelona, Barcelona, 2007, 39.

⁶⁸ In this respect, see E. M. Menéndez Sebastián, *Función consultiva y tutela administrativa efectiva: procedimiento administrativo y buena administración*, in *Revista Española de la Función Consultiva*, no. 32, 2021, 105-126.

⁶⁹ Thus, for example, in judgment 4115/2019 of 18 December 2019, ECLI:ES:TS:2019:4115.

administrative decision is not reached,⁷⁰ and congruent with the aims of general interest, but without detriment to private interests and with the means available.⁷¹

Having briefly outlined some basic questions on the provision of public services (material activity) and decision-making and the role of procedure (formalised activity) from the perspective of good administration, it is now time to look more closely at the use of IA in both types of activity.

To this end, it is necessary to start by referring to the functions that AI systems can perform, including computer *vision*,⁷² automatic sound processing, e.g., voice dictation or voice command *software*; automatic language processing;⁷³ or robotics.⁷⁴

⁷⁰ Reasonable deadline and duly founded decision are two essential aspects of effective administrative protection, along with other procedural rights, as indicated, for example, by P. E. Perrino, *El derecho a la tutela administrativa efectiva*, in *El Derecho administrativo hoy: 16 años después*, Ediciones Rap, Caba, Argentina, 2013, 90.

⁷¹ Thus, in this line, for example, K.-D. Classen, *Gute Verwaltung im Recht der Europäischen Union. Eine Untersuchung zu Herkunft, Entstehung und Bedeutung des Art. 41 Abs. 1 und 2 der Europäischen Grundrechtecharta*, Duncker & Humblot, Berlin, 2008, 115, with regard to the systems of the Nordic countries, the concept of good administration is seen as a general concept that goes far beyond the legal guarantee of individual rights required by the rule of law in administrative procedures and includes not only justiciable rights but also unjustifiable rules of conduct, and practically depends on the existence of an ombudsman (...). On the other hand, as far as the legal systems of the Netherlands and Belgium are concerned, they have closely interrelated principles of good administration based on justiciable principles, whereas only recently, especially in Belgium, have these principles been supplemented by non-justiciable rules of conduct of guidance and efficiency of services through the activity of the Ombudsman, at 124.

⁷² For example, the identification of people and things with public cameras.

⁷³ Such as semantic analysis of text and content identification, e.g., important for anonymisation, to identify mail to be automatically directed to the service in charge, also of meaning by identifying false information. As well as translation, automatic text generation (chatbots), standard replies to emails. Also, categorisation, in this respect the automatic classification of mail, e.g., spam; knowledge acquisition,

Thus, within the capabilities of AI in the public sector, reference has been made to information processing, perception of the environment, decision-making and the achievement of specific objectives.⁷⁵ And within the opportunities, three areas are identified: improving the internal efficiency of the public Administration,⁷⁶ improving its

management and representation: it aims to explore and analyse very large volumes of data to qualify these data (feature recognition or pattern recognition), to order them, to find correlations between them, in such a way that it can transform “raw” data sets into intelligent information and operationally exploitable knowledge for humans. Among the classic uses, for example, data visualisation (data viz), which consists of representing the processed data in a comprehensible way, also with the aim of predicting future manifestations. It is used, for example, in fraud detection to identify deviations from the norm in behaviour. On text analysis with AI, see also M. Guaresi and D. Mayaffre, *Intelligence artificielle et discours politique. Quelles plus-values interprétatives ? Application aux corpus parlementaire et présidentiel contemporains*, in *L'intelligence artificielle des textes. Des algorithmes à l'interprétation*, Lettres numériques, 2021, 131-182.

⁷⁴ It evokes the idea of the humanoid, but there are two types: material and immaterial robotics. The first is the most intuitive, such as automated systems that interact directly with the physical environment (autonomous robots...). The second, known as “bot”, is software that simulates human behavior in the digital environment (chatbot and voicebot), which can be very useful for repetitive tasks.

⁷⁵ S. Samoili, C. M. Lopez, E. Gomez Gutierrez, G. De Prato, F. Martinez-Plumed and B. Delipetrev, *AI Watch-Defining artificial intelligence: Towards an operational definition and taxonomy of artificial intelligence*, Publications Office of the European Union, Luxembourg, 2020, 8.

⁷⁶ In this respect AI applications have the ability to work on specific tasks, such as speech recognition, machine translation or visual form completion verification, as pointed out by S. Tolan, A. Pesole, F. Martínez-Plumed, E. Fernández-Macías, J. Hernández-Orallo and E. Gómez, *Medición del impacto ocupacional de la IA: tareas, habilidades cognitivas y puntos de referencia de la IA*, no. 71, 2021, 191-236; and consequently free up cognitive resources, which can then be allocated to higher value tasks. This reallocation allows management to concentrate scarce resources on tasks where employees perform better than machines, such as problem-solving activities that require empathy, creativity and innovation. The ability of AI technologies to relieve public workers of mundane tasks and augment their skills by supplementing them can translate into budgetary savings, as indicated by W.

decision-making,⁷⁷ and improving citizen/administration interaction.⁷⁸⁻⁷⁹ Nor should we forget the improvement of regulation, a crucial aspect in the current new context, but which I will not refer to in this paper.⁸⁰

D. Eggers, D. Schatsky and P. Viechnicki, *AI-augmented government. Using cognitive technologies to redesign public sector work*, Deloitte, 2017.

⁷⁷ Algorithms are, in essence, a series of steps to process information. As such, they are integrated logics that can support decisions where the input data is a representation of the reality of the phenomenon to be addressed, and the output is a course of action to address the phenomenon, for example, by (i) understanding the impacts of past decisions; (ii) collecting, analyzing and monitoring data from daily uses and processes to increase efficiency (e.g. energy consumption of public buildings or traffic flow data); and (iii) creating future scenarios. AI-driven algorithms have the potential to improve public decision-making in any policy field where the outcome is not fully determined by the application of legal rules on the input data, and staff find it too difficult or too time-consuming to externalize the implicit knowledge applied. However, the risks of harm may outweigh the benefits when AI is applied to certain areas. In sensitive areas where fundamental human rights may be at stake, such delegation of humans to AI-enabled solutions would have to come with the necessary precautions, rules and regulations to avoid potentially deeper systematization and perpetuation of existing biases, as reflected in the White Paper on artificial intelligence. A European approach to excellence and trust, COM(2020) 65 final of 19 February 2020. See also the Decision of the European Parliament and of the Council setting out the policy agenda *Roadmap to the Digital Decade for 2030*, COM(2021) 574 final of 15 September 2021, among many other EU documents related to new technological developments.

⁷⁸ Including the provision of better and more inclusive services and improving citizen participation in public sector activities. Thus, AI has the potential to improve citizen/government interaction in two ways: by providing better (and entirely new) citizen interfaces; and by increasing trust through greater citizen participation in public sector activities and decision-making processes.

⁷⁹ R. Medaglia, J. R. Gil-García and T. A. Pardo, *Artificial Intelligence in Government: Taking Stock and Moving Forward*, in *Social Science Computer Review*, 2021.

⁸⁰ In relation to this issue, see, among others, the works of D. Canals Ametller, *El acceso público a datos en un contexto de transparencia y de buena regulación*, in D. Canals Ametller (ed.), *Datos. Protección, transparencia y buena regulación*, Documenta Universitaria, Girona, 2016, 11-52; by the same author, *El proceso normativo ante el*

It is therefore clear that AI can very actively contribute to the better delivery of good administration, inter alia, through efficiency,⁸¹ better use of available resources,⁸² providing a better quality of services,⁸³ e.g., by reducing the processing time of requests, improving administrative complexity including⁸⁴, etc.

Although reference can be made here to various documents⁸⁵ for the different possibilities for the use of AI in the public sector, as well as to what will be said in chapter three of this study, it is illustrative to refer here, albeit very briefly, to a very general typology. Also, in this

avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos), in *Revista General de Derecho Administrativo*, no. 50, 2019.

⁸¹ S. Jacob and S. Souissi, *L'intelligence artificielle dans l'administration publique au Québec*, in *Cahiers de recherche sur l'administration publique à l'ère numérique*, no. 5, Québec, 2022.

⁸² L. Soto Bernabeu, *La importancia de la transparencia algorítmica en el uso de la inteligencia artificial por la Administración tributaria*, in *Crónica Tributaria*, no. 179, 98.

⁸³ Regarding the use of AI to improve human-centric design, see the experiences presented in A. Kore, *Designing Human-Centric AI Experiences. Applied UX Design for Artificial Intelligence*, Apress, 2022.

⁸⁴ As stated by M. Moritz, *Le développement des services publics dématérialisés en France. Entre faisabilité juridique et blocages institutionnels*, in I. Bouhadana, *Le droit de l'administration numérique en Russie et en France : Regards croisés*, Éditions KAH H, Moscow, 97, in the current context of crisis and budgetary rigour, eGovernment is one of the ways to reconcile what at first sight seems irreconcilable: improving the quality of public services, improving the quality of the services provided and improving the quality of the services provided.

⁸⁵ Thus, for example, a non-exhaustive but very complete mapping of artificial intelligence systems used by the French public sector can be found in Annex 9 of *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit. Also the European Commission offers an interesting classification in M. Manzoni, R. Medaglia, L. Tangi, C. Van Noordt, L. Vaccari and D. Gattwinkel, *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, Publications Office of the European Union, Luxembourg, 2022; or G. Misuraca and C. van Noordt, *Overview of the use and impact of AI in public services in the EU*, EUR 30255 EN, Publications Office of the European Union, Luxembourg, 2020.

respect, it is worth noting that few countries have an IA strategy expressly referring to the public sector,⁸⁶ such as Italy,⁸⁷ and France⁸⁸ is in the process of developing one.

Regarding this typology of uses in the field of Administration,⁸⁹ we can refer to the automation of repetitive or tedious tasks,⁹⁰ automation of the relationship with citizens or public employees,⁹¹

⁸⁶ Precisely in relation to the role of such documents see the work of G. Paltieli, *The political imaginary of National AI Strategies*, in *AI & Society*, 37, 2022, 1613-1624.

⁸⁷ Agenzia per l'Italia Digitale, *Libro Bianco sull'Intelligenza Artificiale al servizio del cittadino*, Italy, 2018. Regarding the use of this type of technology in the Administration, see, among others, D.-U. Galetta, *Public Administration in the Era of Database and Information Exchange Networks: Empowering Administrative Power or Just Better Serving the Citizens?*, in *European Public Law* 25, no. 2, 2019, 171-182, and D.-U. Galetta and G. Pinotti, *Automation and Algorithmic Decision-Making Systems in the Italian Public Administration*, in *CERIDAP*, 16 January 2023.

⁸⁸ C. Villani, M. Schoenauer, Y. Bonnet, B. Charly, A.-C. Cornut, F. Levin and B. Rondepierre, *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne*, France, 2018.

⁸⁹ Regarding the issues to be taken into account in the use of AI in the Administration, the study by V. J. Straub, D. Morgan, J. Bright and H. Margetts, *Artificial intelligence in government: Concepts, standards, and a unified framework*, in *Cornell University*, arXiv:2210.17218, is of interest.

⁹⁰ For example, the anonymization of judicial decisions in France, the settlement of benefits, the matching of supply and demand, etc. In some cases, it is so simple that it may not even fit into the concept of artificial intelligence in the draft European regulation, which is based on risk. Of interest is the guide on the *pseudonymisation* of documents with artificial intelligence Etalab, *Pseudonymiser des documents grâce à l'IA*, 2022 (guides.etalab.gouv.fr). More generally, regarding various applications of these systems to the world of law, see, A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique*, PUF, Paris, 2018.

⁹¹ They are very useful to improve information and response not only to service users, but also to inform staff of their rights. *Chatbots* and *voicebots* fall into this category, but also machine translation, digital coding, e.g., which rules apply to a topic. In general, they are based on automatic language processing.

public decision support systems,⁹² control activities⁹³ and robotics applied to public action⁹⁴.

It is clear that many of these IA systems are already in use, especially with regard to the material activity of service provision⁹⁵ and even in formalized activity. However, this requires further

⁹² These types of artificial intelligence systems are also widely used, for example, for waste management, transport, even with the well-known predictive systems to avoid floods, traffic peaks, etc. There are also simulators that provide insight into the possible effects of public decisions, for example, the so-called “digital twins” to reproduce urban reality. Tools to help manage public services, diagnostic aids, learning aids, voice assistants for language learning. In the judicial field, for example, in France they have two tools, one for detecting series of conflicts and another for locating contradictory jurisprudence. Also to evaluate public policies, for example, an algorithm that can detect, by voice, the presence of men and women in the media, etc.

⁹³ This is a privileged area for the use of these tools, but it is necessary to eradicate certain well-known risks, examples of which are already in place in our country and others clearly exist, ranging from traffic offences with number plate identifiers based on images, the possibility of identifying buildings or installations that have not been declared or are unlicensed, etc. Much more controversial is biometric identification, prohibited in certain cases in the draft EU regulation (in particular, what is prohibited is the use of remote biometric identification systems “in real time” in public access spaces for the purposes of application of the regulation itself) or the creation of profiles in criminal matters. But it also has uses that can improve and contribute to good administration without calling into question or coming into conflict with citizens’ rights and freedoms, for example, in the area of expenditure control for the administration itself, as is the case in France of the *Arrêté du 29 janvier 2019, portant création d’un traitement automatisé d’analyse prédictive relatif au contrôle de la dépense de l’État*.

⁹⁴ Such as robots in hospitals delivering food to patients or the operation of the ductless metro in some cities, much more complex for the time being road transport, although autonomous vehicles already exist. On the issue of robots, from a legal perspective, see A. Mendoza-Caminade, *Le droit confronté à l’intelligence artificielle des robots : vers l’émergence de nouveaux concepts juridiques ?*, in *L’intelligence artificielle*, Dalloz, Paris, 2019, 233.

⁹⁵ See, C. Ramió, *Inteligencia artificial y administración pública: Robots y humanos compartiendo el servicio público*, Catarata, Madrid, 2019.

clarification, in particularly regarding individualized administrative decisions, to which I will devote more attention when discussing discretionary powers.

However, as I indicated at the beginning of this section, it is necessary to conclude it by briefly referring to the different implications of the use of IA in the material activity and formal activity from the perspective adopted in this study, that is to say, the contrast between effectiveness and guarantees.

From this point of view, the issue of transparency and motivation⁹⁶ deserves a specific mention because, although they will be developed in more detail below, it is necessary to refer to this issue from the perspective of the differences between material and formal activity.

It is clear that in the case of formal activity and, specifically, of individual administrative decisions, the statement of reasons is of great importance, especially when they result from exercising of a discretionary power.⁹⁷ Precisely, motivation is one of the rights expressly included in good administration, as stated in the aforementioned Article 41 of the Charter of Fundamental Rights of the European Union. In the case of the Spanish system, art. 35 of Law 39/2015, of 1 October, on *Procedimiento Administrativo Común de las Administraciones Públicas*, refers to the obligation to provide reasons for administrative acts. Considering that in our legal system, there is no specific regulation of this issue in the field of IA, it will be necessary to resort to these general rules.

On the other hand, France does expressly mention the subject in relation to individual administrative decisions when algorithmic

⁹⁶ On the subject of motivation in different legal systems, see the interesting monograph D. Custos and J.-M. Larralde (eds.), *La motivation des actes administratifs. Le droit français à la lumière du droit administratif comparé*, in *Cahiers de la recherche sur les droits fondamentaux*, no. 17, 2019.

⁹⁷ On this issue, see, for example, O. Grévin, *Une transparence des algorithmes publics limitée au seul cadre des décisions individuelles ?*, in *International Journal of Digital and Data Law*, vol. 8, 2022, 163-179.

processing has been used in their adoption (Articles L311-3-1 and R311-3-1-2).⁹⁸ In this case, and unlike in Spain, when regulating access to the right of access to documents, this is done in a general manner but with the appropriate clarifications in the case of individual decisions. Thus, since the statement of reasons implies an understanding of how the decision was taken, in the event that an algorithmic process has been used, it is necessary to know it, have access to it and understand it. In this way, although the statement of reasons for acts in this system is regulated in general terms in articles L211-1 to L211-8 of the *Code des relations entre le public et l'administration* (CRPA), it is necessary to complement these general provisions with what has been said with respect to access to documents.

And this, moreover, because it is argued here, as in previous studies,⁹⁹ that the key to accessing the source code, algorithms or similar instruments or tools, resides in the motivation and/or transparency, as they are, in short, instruments, documents that form part of the administrative record or of decision-making of various kinds,¹⁰⁰ unlike other authors who have argued that they are acts or regulations.

⁹⁸ As will be seen below, it establishes the obligation of the administration to communicate to the person subject to an individual decision taken on the basis of algorithmic processing, at his request, in an intelligible form and without violating secrets protected by law, the extent and manner in which the algorithmic processing has influenced the decision-making; the data processed and their sources; the processing parameters and, where appropriate, their weighting, applied to the data subject's situation; and the operations carried out by the processing.

⁹⁹ E. M. Menéndez Sebastián, *Las garantías del interesado en el procedimiento administrativo electrónico: luces y sombras de las nuevas Leyes 39 y 40/2015*, cit.

¹⁰⁰ In this respect, see the interesting evolution experienced with regard to the qualification of the programme and later of the source code. Thus, very briefly, it is worth recalling that in Italy in the early 1990s A. Masucci, *L'atto amministrativo informatico. Primi lineamenti di una ricostruzione*, Jovene, Naples, 1993, 56, and U. Fantigrossi, *Automazione e pubblica amministrazione*, Il Mulino, Bologna, 1993, 51,

Moreover, the French *Commission d'accès aux documents administratifs* also seems to understand it this way since 2015,¹⁰¹ and it has been

argued that the then program was an administrative act, of different nature, but always an administrative act and not a document. On the contrary, as early as 2002, A. G. Orofino, *La patologia dell'atto amministrativo elettronico: sindacato giurisdizionale e strumenti di tutela*, in *Foro amministrativo C.d.S.*, 2002, 2256-2281, maintains that it is not an administrative act, a theory that is ratified in his work A. G. Orofino and R. G. Orofino, *L'automazione amministrativa: imputazione e responsabilità*, in *Giornale di diritto amministrativo*, 2005, 1300-1312, where he also states that the programming instructions must be formalised by the Administration. This thesis seems to be shared by I. Martín Delgado, *Natureza, concepto y régimen jurídico de la actuación administrativa automatizada*, in *Revista de Administración Pública*, no. 180, 2009, 353-386. In its judgment of 21 March 2017, the *Tar Lazio*, Rome, section III *bis*, in Italy disagrees with this position, maintaining that it must be given as it is an administrative act, a position ratified by the *Consiglio di Stato*, section VI, in its judgment of 8 April, No. 2270. However, in a second judgment of the same year, specifically of 13 December 2019, no. 8472, of the same section, the *Consiglio di Stato* seems to change its position, understanding that the program is an instrument. A year later, A. Boix Palop, *Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados por la administración para la adopción de decisiones*, in *Revista de Derecho Público: Teoría y Método*, 1, 2020, 223-269, argues that algorithms are regulations, a minority position that the author himself has subsequently qualified, and which has been opposed by A. Huergo Lora, *Una aproximación a los algoritmos desde el derecho administrativo*, in *La regulación de los algoritmos*, Thomson Reuters, Cizur Menor, 2020, 23 and 64, who is inclined to consider them as administrative acts. Also in 2020 A. G. Orofino and G. Gallone, *L'intelligenza artificiale al servizio delle funzioni amministrative: profili problematici e spunti di riflessione*, in *Giurisprudenza Italiana*, no. 7, 2020, 1738-1748, ratify their position and affirm that the program is not an act but a document, to which access must be given, which has been accepted by the *Tar Lazio*, Roma, section III *bis*, in its judgment of 30 June 2020, no. 7370. Regarding the different positions on the nature of algorithms, as well as the impact this has on the so-called reservation of humanity, see G. Gallone, *Riserva di umanità e funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo*, CEDAM Wolters Kluwer, Padua, 2023, 87-99.

¹⁰¹ In particular, it is worth mentioning the *Communication of the source code of the software simulating the calculation of the tax on the income of individuals* (Avis 20144578 Séance du 08/01/2015).

expressly included in the CRPA since 2016.¹⁰² The Spanish *Consejo de Transparencia y Buen Gobierno* is also, to some extent, along these lines when it includes them within the concept of public information.¹⁰³

However, the fact that formalized activity and especially individual administrative decisions require motivation, especially in some instances, and therefore there is a general obligation to explain how the decision has been taken, does not exclude that also in material activity there should be transparency in the use of IA systems.

In this case, it is no longer a question of motivation but of accountability and, in particular, of transparency, either actively or through the right of access. Therefore, as to whether the use of such tools should be disclosed when it is a matter of material activity, such as, for example, the provision of public services, we will have to resort to Spanish Law 19/2013 of 9 December on *Transparencia, acceso a la información pública y buen gobierno*,¹⁰⁴ hereinafter LTAIPBG.

We must not lose sight of the fact that, in the new panorama in

¹⁰² Specifically, since the wording given to art. L300-2 of the CRPA by Loi n° 2016-1321 du 7 octobre 2016 pour *une République numérique*, source code is expressly included as an administrative document. Previously, however, in R/0701/2018 of 18 February 2019 in the *Bosco* case, the aforementioned Consejo held that it was not clear from the rules in force at the time that the duty to state reasons necessarily implied access to the source code. This decision was confirmed in court by the ruling of Tribunal Central de lo Contencioso-administrativo no. 8 of 30 December 2021 (PO 18/2019), which considered that access to the source code could in this case fall within the limits of letters d), g), j) and k) of art. 14.1 of the Spanish Law 19/2013 of 9 December on *Transparencia, acceso a la información pública y buen gobierno*. This generated strong criticism from the doctrine, see, among others, the exquisite argumentation of Prof. Fuertes López M., *Reflexiones ante la acelerada automatización de actuaciones administrativas*, cit.

¹⁰³ See in this respect, for example, resolution RT/0748/2021, in which it is understood that it was appropriate to give access to the source code of the computer application used for the drawing of lots in selection processes.

¹⁰⁴ Transparency, access to public information and good government.

which the relationship between public authorities and citizens is developing, the question of knowledge of the use of this type of tool in public services is of interest as it connects with their functioning, giving rise to the issue of transparency to which I will refer in greater detail, given that it is a question of being accountable for how the Administration functions¹⁰⁵ -this is how it has been considered to fit in with the concept of public information,¹⁰⁶ as has already been mentioned-. However, always bearing in mind that there may not be any other interest that could limit access, i.e., that any of the limits of art. 14 of the Spanish LTAIPBG do not apply, and without forgetting the importance of data protection (art. 15 LTAIPBG),¹⁰⁷ especially when we remember that these systems usually use a massive amount of data as “fuel”.¹⁰⁸

Moreover, on the other hand, it is evident that since the material activity can have concrete repercussions, it can generate, for example, cases of non-contractual liability (patrimonial liability of Administration in the Spanish system) due to a malfunctioning of

¹⁰⁵ In this respect, the expression of Etalab, *Expliquer les algorithmes publics*, cit., 7, stands out when it says that public algorithms are forms of public action and are therefore subject to the same requirement of accountability, the administrations that design and use public algorithms must therefore be “accountable” for their use to the individuals concerned, but also to society as a whole.

¹⁰⁶ M. E. Gutiérrez David, *Administraciones inteligentes y acceso al código fuente y los algoritmos públicos. Conjurando riesgos de cajas negras decisionales*, in *Derecom*, 30, 2021, 143-228.

¹⁰⁷ See in this regard, inter alia, D. J. Solove, *Data Is What Data Does: Regulating Use, Harm, and Risk Instead of Sensitive Data*, GW Law, 2023; and M. Lanna, *La protection des données à caractère personnelle à l'épreuve de l'automatisation connectée*, Thèse, Droit Public, Université Paris II- Panthéon-Assas, 2019.

¹⁰⁸ In this respect, it should also be recalled what is also established in the GDPR and, in particular, in Art. 22.

the service;^{109 - 110} think of a wrong diagnosis, based on or carried out by an AI system. And although the issue of liability in the use of AI cannot be developed here, despite its interest, it is clear that it is another of those guarantees,¹¹¹ which are essential in this subject.

In connection with the above, the criterion used by Etalab¹¹² to disclose the algorithm, the source code and other documents necessary to understand the functioning of public services is very interesting as it refers to whether the AI system used influences the administrative decision or not, whether strictly legal or otherwise.

Thus, for example, in the system used for the prioritization of emergencies is understood that it is decisive in deciding the order of attention to them and that, therefore, there should be transparency; whereas, in other cases, such as *chatbots*, in which it is not a support for the Administration's decision, but serves to inform citizens, it would not be necessary.

This is an interesting distinction, and this is taking into account that perhaps there could even be an assumption of non-contractual or patrimonial liability for poor advice given by the *chatbot*, perhaps based on principle of protection of legitimate expectations. Although the same assumption could be made if the respondent is

¹⁰⁹ Although in the Spanish system this institution also has a place when, even when there is a good performance, damage is caused that there is no legal duty to bear.

¹¹⁰ On the issue of electronic public services and non-contractual or patrimonial liability in general, see, for example, R. Martínez Gutiérrez, *Servicio público electrónico y responsabilidad*, in *Revista Española de Derecho Administrativo*, no. 155, 2012, 291-318.

¹¹¹ C. Alcolea Azcárraga, *La responsabilidad patrimonial de la Administración y el uso de algoritmos*, in *Revista General de Derecho Administrativo*, no. 50, 2022.

¹¹² Etalab is a department of the Direction interministérielle du numérique (DINUM), whose missions and organization are set out in the decree of 30 October 2019. Acting as the "Chief Data Officer" of the French State (under the missions of the General Administrator of data, algorithms and source codes), it coordinates the design and implementation of the State's data strategy.

a human, and the influence, in this case, would be on the decision of the recipient of the consultation and not of the administration.

On this issue of algorithmic transparency, see also the *Guidance Algorithmic Transparency Recording Standard - Guidance for Public Sector Bodies*, published 5 January 2023, that is intended to provide a standardized way for public bodies and government departments to provide information about how algorithmic tools are being used to support decisions.¹¹³

Undoubtedly, this is a crucial issue in the use of these systems, which I will go into in greater depth later on, but which has already been pointed out from the perspective of the differences with respect to material and formal activity, given that the degree of transparency obligation is not identical in all cases and not even the regulatory rule is the same, at least in the Spanish case. Although, in my opinion, it is necessary to start, in any case, from the principle of transparency by default, only limited in a reasonable and reasoned way, especially in the first type of cases (material activity), by the concurrence of some limit, such as those included in the Spanish Transparency Law, or in the CRPA in France. However, this is not -nor can it be- the same when it comes to individual administrative decisions that require -necessarily- a statement of reasons, in such a way, the cases in which transparency can be limited are not the same in the case of one type of activity or another.

1.3. *Benefits and risks*

The benefits of using AI systems in the public sector are varied, some of them closely connected to the basic principles of public

¹¹³ See regarding the UK Government's draft '*Algorithmic Transparency Standard*', M. Oswald, L. Chambers, E. P. Goodman, P. Ugwudike and M. Zilka, *The UK Algorithmic Transparency Standard: A Qualitative Analysis of Police Perspectives*, 7 July 2022.

service delivery, such as universality, continuity,¹¹⁴ and even the progress clause.

Suffice it to simply indicate the improvement of decisions, actions and services provided, thanks to the proper data management,¹¹⁵ or with simulators that allow for a glimpse of the possible effects of measures, which is crucial in the *ex-ante* evaluation of public policies.¹¹⁶

A second benefit is the quality of the service as it is permanently available and constant over time, which in turn connects to the continuity of the service. However, we must not forget the so-called “stop button” which in turn makes it necessary to consider the possibility of malfunctioning and foresee how, in cases where services are fully managed in this way, they could be temporarily taken over by public employees.

¹¹⁴ The aspect of continuity in *online* public services is discussed, among others, in A. Masucci, *Digitalizzazione dell'amministrazione e servizi pubblici on line. Lineamenti del disegno normativo*, in *Diritto Pubblico*, fasc. 1, 2019, 142-143.

¹¹⁵ While some argue that more data does not make better decisions M. Bellotti, *A.I. Is Solving the Wrong Problem. People don't make better decisions when given more data, so why do we assume A.I. will?*, 2021.

¹¹⁶ As A. Cerrillo i Martínez, *¿Son fiables las decisiones de las Administraciones públicas adoptadas por algoritmos?*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 17, AI can be useful in public decision-making. Indeed, the use of artificial intelligence allows public administrations to have a better understanding of the context in which they make decisions, to assess background and precedents more quickly, to anticipate the impact of decisions, to make decisions in an automated way or to evaluate their impact or effectiveness. In this way, the use of artificial intelligence can make the decisions taken by public administrations more efficient or of higher quality. However, despite the potential benefits of the use of artificial intelligence in public decision-making, we cannot ignore the risks it may also entail due not only to the current limitations of the technology that may result in errors, but also to the impact that the use of algorithms by public administrations may have on the principles that guide their actions and functioning (for example, legal certainty, equality or transparency) or on the rights of individuals (in particular, the protection of personal data, privacy or equality). See also OECD, *Artificial Intelligence in Society*, cit., 16-19.

Undoubtedly another potential benefit of using AI systems or other such tools (depending on the concept used) is the streamlining of procedures, saving time for both the administration and the targeted citizens, e.g., through repetitive tasks such as verification of authenticity, verification of compliance with conditions, even classification of applications in specific processing, etc.

It is clear that in some cases, such as directly awarded subventions, subsidies, aids or benefits that simply require verification of compliance with the established requirements, these tools can be very useful. However, they can also be integrated into competitive awards, provided that the scale can be parameterized, especially if this is simple, as is already done in the field of public procurement,^{117 - 118} however, always with caution¹¹⁹ and with the warnings that will be indicated.

Undoubtedly, and connected with streamlining, in my opinion, one of the benefits of AI systems is simplification.¹²⁰ The fact is that we are increasingly immersed in a more complex reality, and despite the efforts made years ago to simplify administration, the truth is that this is far from being achieved. It is essential that the AI system does not

¹¹⁷ For example, blockchain technology is used in contracting in Aragón, see J. C. Tejedor Bielsa, *Transformación digital, blockchain e inteligencia artificial. Referencias and experiences in Aragón*, cit.

¹¹⁸ On digitisation in public procurement in Italy, see, among others, E. Guarnaccia, *Il processo di digitalizzazione delle gare d'appalto: dal DM n. 148/2021 al Codice dei Contratti Pubblici 2023*, in *CERIDAP*, special no. 1, 2022, 134-149. And as to some specific aspect of the use of this technology in contracting, for example, M. Finck and V. Moscon, *Copyright Law on Blockchains: Between New Forms of Rights Administration and Digital Rights, Management 2.0*, in *IIC - International Review of Intellectual Property and Competition Law*, vol. 50, 2019, 77-108.

¹¹⁹ In the words of the Commission d'Oxford sur l'AI et la bonne gouvernance, *L'AI dans le service public : Des principes à la pratique*, University of Oxford, 2021, 4, it must be reflective.

¹²⁰ G. Koubi, *Les mots de la modernisation des relations administratives*, in *Revue Française d'Administration Publique*, no. 146, 2013, 339-350.

copy complexity but converts it into simplification,¹²¹ for example, through repetitive tasks which, as we have already seen, represent a field in which this type of technology fits perfectly, such as classification, the handling of applications, certain checks, some uses of voice recognition,¹²² etc.

On the other hand, AI can contribute to equality, but not in all cases.¹²³ If it is well designed and fed with clean, quality data¹²⁴ (which in the current state of affairs is not easy), decision-making can be more objective and free of bias and prejudice. However, in my view, such tools should not be used when it is necessary or desirable in decision-making for the human relationship to capture, through empathy, the key factors of the situation.¹²⁵

¹²¹ D.-U. Galetta, *Algoritmi, procedimento amministrativo e garanzie: brevi riflessioni, anche alla luce degli ultimi arresti giurisprudenziali in materia*, in *Rivista Italiana di Diritto Pubblico Comunitario*, no. 3-4, 2020, 501-516.

¹²² Thus, for example, *DigaLaw* from the consultancy firm SpeechWare, with legal speech recognition, automatic translation, etc., which is already collaborating with the Spanish *Ministerio de Justicia*.

¹²³ Thus, as J. Kleinberg, J. Ludwig, S. Mullainathan and C. R. Sunstein, *Discrimination in the age of algorithms*, in *SSRN*, February 5, 2019, understand, the ambiguity of human decision-making often makes it extraordinarily hard for the legal system to know whether anyone has actually discriminated. Yet for the task of proving discrimination, processes involving algorithms can provide crucial forms of transparency that are otherwise unavailable. These benefits do not happen automatically. But with appropriate requirements in place, the use of algorithms will make it possible to more easily examine and interrogate the entire decision process, thereby making it far easier to know whether discrimination has occurred. By forcing a new level of specificity, the use of algorithms also highlights, and makes transparent, central tradeoffs among competing values. Algorithms are not only a threat to be regulated; with the right safeguards in place, they have the potential to be a positive force for equity.

¹²⁴ As noted by S. Barocas and A. D. Selbst, *Big data's disparate impact*, in *California Law Review*, 2016, 104, 671-732, predictive algorithms may favour groups that are better represented in the algorithms' training data.

¹²⁵ Conseil d'Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 73.

Empathy, so aptly referred to by Prof. Juli Ponce,¹²⁶ and which should not be confused with a lack of impartiality. I have already said that AI systems can do tasks that are unthinkable for men and women, such as processing a massive amount of data,¹²⁷ but that there are other capabilities that it lacks and that, for the moment, it certainly cannot emulate, and this is one of them.

I, therefore, agree that, in some instances, although, it is necessary to specify and qualify on a case-by-case basis, the reserve of humanity referred to by the aforementioned author¹²⁸ should be maintained. And although there are those who understand that human intervention always occurs,¹²⁹ even if it is in the sense that it is the human who determines that the decision is automated,¹³⁰ in my opinion, in certain cases, this is not a sufficient guarantee.¹³¹

On the other hand, it can contribute to greater equality, for

¹²⁶ J. Ponce Solé, *Inteligencia artificial, Derecho administrativo y reserva de humanidad: algoritmos y procedimiento administrativo debido tecnológico*, in *Revista General de Derecho Administrativo*, no. 50, 2019.

¹²⁷ They can be used, for example, to inform critical decisions, as indicated by E. D. Peet, B. G. Vegetabile, M. Cefalu, J. D. Pane and C. L. Damberg, *Machine Learning in Public Policy. The Perils and the Promise of Interpretability*, RAND Corporation, Santa Monica, November 2022, 1.

¹²⁸ J. Ponce Solé, *Inteligencia artificial, Derecho administrativo y reserva de humanidad: algoritmos y procedimiento administrativo debido tecnológico*, cit. Also regarding the need for human intervention, in any case, see, among others, D.-U. Galetta and J. G. Corvalán, *Intelligenza Artificiale per una Pubblica Amministrazione 4.0? Potenzialità, rischi e sfide della rivoluzione tecnologica in atto*, in *Federalismi.it*, no. 3/2019, 6 February 2019, 1-23; or more recently G. Gallone, *Riserva di umamità e funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo*, cit.

¹²⁹ See on human intervention in its various facets in the so-called algorithmic administrative act J. S. Patiño Ávila and H. E. Guevara Zapata, *Los actos administrativos unilaterales algorítmicos: una conceptualización necesaria para tiempos modernos*, in *Revista Academia & Derecho*, vol. 11, 21, 2020, 183.

¹³⁰ A. Huergo Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, in *El Cronista del Estado social y democrático de Derecho*, no. 96-97, 2022, 94.

¹³¹ In this respect and in this sense, the work of G. Gallone, *Riserva di umamità e*

example, through the convergence of administrative and/or judicial decisions, in that it can compare cases in order to homogenize responses, including through the formalization of evaluation criteria and their weighting,¹³² obviously bearing in mind that similar treatment between cases requires them to be comparable.

Thus, rather than using these systems to decide according to patterns that are repeated, for example, in the judicial sphere, where it is essential to attend to each specific case, they could be used to detect possible divergences, which will then be analysed by human intelligence with a view to a possible unification of criteria.

This connects with another issue that has been little or not at all analysed, such as the issue of motivation in the case of departing from administrative precedent, as we should not forget that one of the cases in which motivation is expressly required in accordance with art. 35.1, c) of Spanish Law 39/2015, is when the act departs from the criterion followed in previous actions.

I mean, if, for example, as a result of changing the way of deciding, think of the allocation of benefits or the award of grants, which happens to be executed with an AI system and thus changes how decisions are made, how is this departure from precedent motivated? The truth is that although it may be possible to explain how the machine decides -which is essential for its possible use-,¹³³ what is perhaps more difficult is to know why the result of the decision is different from when it was made by a human. This does not necessarily have to be due to a fault or inadequate design of the machine, as we humans are not totally transparent either.

A similar situation occurs in the other case referred to in the same

funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo, cit.

¹³² We should not lose sight of the fact that sometimes humans decide and seek a *posteriori* argumentation to motivate their decision.

¹³³ Thus, there is even talk of a “right to explanation”, derived from the GDPR, as indicated by B. Goodman and S. Flaxman, *European Union regulations on algorithmic decision-making and a “right to explanation”*, in *arXiv:1606.08813*.

letter of art. 35.1, c) of Spanish Law 39/2015, i.e., when the administrative act in question departs from the opinion of a consultative body. Thus, for example, let us imagine a claim for non-contractual or patrimonial liability, in which -within the Spanish system-, depending on the amount, there will be a mandatory, but not binding, opinion of the *Consejo de Estado* or equivalent consultative body at the regional level. If an IA system is used to decide something very difficult, in my opinion, taking into account the need to attend to the specific circumstances, and it departs from the opinion issued by that consultative body, how could this separation from the criterion set out in the opinion be justified? Again, the problem would be the same, even if one can explain how the algorithm or other tool used decides, this does not necessarily explain why it departs from the opinion of the consultative body, as they are two different aspects. It is a different matter to apply these tools to calculating compensation, where it is perhaps simpler.

Let us not forget in this regard that, as the doctrine has rightly pointed out, algorithmic predictions are a different way of approaching a problem or making a decision.¹³⁴ Thus, one of the key features of algorithmic or AI systems is that they arrive at the result through correlations, not *causation* (*correlation is not causation, and prediction is not certainty*), as occurs in usual reasoning,¹³⁵ nor do they do so as experts can do in certain decisions, i.e., for example, through personal perception or intuition.¹³⁶

Another relevant issue to be taken into account is the need for

¹³⁴ A. Huergo Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, cit.

¹³⁵ J. Berryhill, K. Kok Heang, R. Clogher and K. McBride, *Hello, World: Artificial Intelligence and its Use in the Public Sector*, *OECD Working Papers on Public Governance*, no. 36, OECD Publishing, Paris, 2020.

¹³⁶ Regarding how humans make decisions, among other studies, S. Dhami, A. al-Nowaihi and C. R. Sunstein, *Heuristics and Public Policy: Decision Making Under Bounded Rationality*, in *Harvard Public Law Working Paper* no. 19-04, June 19, 2018.

administrations to be at the level required by society,¹³⁷ for example, it will be difficult to control certain actions of the private sector if it does not have the necessary tools and knowledge, as well as losing credibility in the eyes of the citizens. In this regard, it is worth recalling the progress clause in public services; although it is clear that, also in the use of AI, the public sector inevitably presents particularities due to its very purpose and its subjection and position in the rule of law.¹³⁸

Moreover, as I have already said, the question has even been raised about whether there is a right to AI, which connects with the idea of progress, the necessary appropriate choice of means, and even effectiveness and good administration.¹³⁹ Thus, for example, the Italian *Consiglio di Stato* has been linking this question with the *buon andamento* of art. 97 of the Italian Constitution.¹⁴⁰ And in other

¹³⁷ Conseil d'État, *Les pouvoirs d'enquête de l'administration*, Conseil d'État, Paris, 2021.

¹³⁸ As reported in M. Manzoni, R. Medaglia, L. Tangi, C. Van Noordt, L. Vaccari and D. Gattwinkel, *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, cit., 11.

¹³⁹ Concerning the connection between various technological aspects in the administration and the very concept of good administration, see, among others, D.-U. Galetta, *Digitalizzazione e diritto ad una buona amministrazione (il procedimento amministrativo, fra diritto UE e tecnologie ICT)*, in R. Cavallo Perin e D.-U. Galetta, *Digitalizzazione e Diritto Ad Una Buona Amministrazione (Il Procedimento Amministrativo, Fra Diritto UE e Tecnologie ICT)*, Giappichelli, Torino, 2020, 85-117.

¹⁴⁰ In this regard, it holds in its well-known judgment no. 2270 of 8 April 2019, which has indicated that automated administrative decision-making constitutes a “consistent application” of the constitutional principle of good administrative behaviour guaranteed by art. 97 of the Italian Constitution, which obliges the Administration to “achieve its aims with the least possible means and resources and through the rationalisation and acceleration of procedures”, although it does not recognize a right to the automation of decisions, but imposes a series of obligations also in their use, such as the “*cognizability*” of the algorithm. As indicated by S. De La Sierra, *Control judicial de los algoritmos: robots, administración y estado de derecho*, in *Derechocal.es*, 2021, after this judgment, the Italian *Consiglio di*

systems, the use of AI is even legally required whenever the benefits outweigh the risks.¹⁴¹⁻¹⁴²

However, there is no doubt about the difficulty of judicially demanding this issue or right in concrete practice,¹⁴³ which in turn evokes such interesting issues as quality and service charters,¹⁴⁴ or even the loss of opportunity in the field of non-contractual or

Stato has had the opportunity to pronounce on other occasions on the use of algorithms by public administrations, underpinning some aspects of the legal regime of this new public instrument, such as judgment no. 8472 of 13 December 2000, in *Derecholocal.es*, 2021, on the use of algorithms by public administrations. 8472 of 13 December 2019, where, in addition to the requirement of cognizability of the algorithm, it adds the criterion of the imputation of the algorithmic decision to a body holding the power (or, in our terminology, the competent body that has been attributed the power). This body must be able to verify the logic and legitimacy of the choice, as well as of the results arising from the algorithm.

¹⁴¹ This is the case in the United States of Executive Order 13960 of December 3, 2020, *Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government*, based on the “performance principle”.

¹⁴² Thus, as proposed by R. W. Hahn and C. R. Sunstein, *The Precautionary Principle as a Basis for Decision Making*, in *The Economists' Voice*, vol. 2, no. 2, Article 8, 2005, 1-11, difficult decisions require attention to the cost-benefit equation, without the precautionary principle paralysing them.

¹⁴³ Although in this respect it is worth referring precisely to the possibility pointed out in E. M. Menéndez Sebastián, *De la función consultiva clásica a la buena administración. Evolución en el Estado social y democrático de Derecho*, cit., regarding the judicial control of decisions through good administration, as it is considered a legal notion that is included within legality.

¹⁴⁴ In this respect, and whether or not non-compliance with them generates non-contractual or patrimonial liability, a much debated issue, it is worth recalling what has already been said in E. M. Menéndez Sebastián, *De la función consultiva clásica a la buena administración. Evolución en el Estado social y democrático de Derecho*, cit., as well as referring to works such as that of Professor J. Tornos Más, *Las cartas de servicios*, in *QDL*, Fundación Democracia y Gobierno Local, 10 February 2006, 72-82; or more recently that of I. Aragonés Seijo, *Responsabilidad Patrimonial y los estándares de calidad de las cartas de servicio en la determinación del funcionamiento de la actividad administrativa*, in *La Administración Práctica*, Cuaderno no. 10, October 2020.

patrimonial liability -linked to the lack of use of IA-. I will refer to these issues more specifically when developing the safeguards.

On the other side of the coin, the interesting idea of the Administration's duty to modernize in order to guarantee the best quality of its performance and, consequently, the quality of life of citizens¹⁴⁵ stands out.

Finally, concerning these benefits, it is worth mentioning the optimization of material and personal resources, which will lead to a transformation of the organization itself¹⁴⁶ and its staff,¹⁴⁷ as it will require a change of functions, relocation,¹⁴⁸ training,¹⁴⁹ culture of change,¹⁵⁰ providing experts, etc.¹⁵¹

Thus, for example, if AI systems are deployed for favourable cases,

¹⁴⁵ A. G. Orofino, *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, cit.

¹⁴⁶ As J. Chevallier, *Vers l'État plateforme ?*, in *Revue française d'administration publique*, no. 167, 2018, 627; or J.-B. Auby, *Le droit administratif face aux défis du numérique*, in *Actualité juridique droit administratif*, no. 15, 835-844.

¹⁴⁷ On this topic, see, among others, R. Galindo Caldés, *Automatización, inteligencia artificial y empleados públicos*, in *Retos jurídicos de la inteligencia artificial*, Thomson Reuters, Cizur Menor, 2020, 93-112; or VV. AA., *Transformación digital y empleo público*, IDB, Washington, 2020.

¹⁴⁸ Conseil d'Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 8.

¹⁴⁹ For example, as S. Crocci, *Gli obblighi di pubblicità e trasparenza nelle pubbliche amministrazioni ed il rispetto della privacy: la formazione ICT del personale come grandezza predittiva*, in *CERIDAP*, no. 4, 2020, 50-95, highlights the relationship between the training received by public employees and the correct fulfilment of the obligations of public administrations in terms of publicity and transparency, with respect for privacy and data protection.

¹⁵⁰ See in relation to this cultural change E. Michetti, *La teoria della legittimità nella burocrazia artificiale: la nuova frontiera della "digitalizzazione giuridica"*, in *Gazzetta Amministrativa*, no. 1, 2016, 5-24.

¹⁵¹ In this regard see T. Balbo Di Vinadio, C. van Noordt, C. Vargas Álvarez del Castillo and R. Avila, *Artificial Intelligence and Digital Transformation. Competencies for Civil Servants*, Unesco, 2022.

more resources can be allocated to personalized attention,¹⁵² especially in unfavourable cases, as well as an increase in the dedication to more complex cases,¹⁵³ etc. In short, to improve the service and performance of our administrations.

In an attempt to synthesize the various benefits of AI in the public sector, they can be traced back to three basic types, namely: improvement of decision-making processes and results in public decision-making;¹⁵⁴ improvement of the provision of public service and the interaction between administrations and citizens;¹⁵⁵ and, thirdly, optimization of internal management.¹⁵⁶

In turn, within the second, which is perhaps the one that presents the most questions, i.e., the one referring to decision-making, three specific aspects can be pointed out that illustrate how they can contribute to its improvement. Thus, for example, through the confluence of data from different fields,¹⁵⁷ to understand the

¹⁵² K. Nyman Metcalf, *e-Governance and Good Administration: Examples from Estonia*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 73.

¹⁵³ This is the idea behind the use of *Prometea* in Argentina, as explained by J. G. Corvalán and E. M. Le Fevre Cervini, *Prometea experience. Using AI to optimize public institutions*, in *CERIDAP*, no. 2/2020, 27-35, *Prometea* is an artificial intelligence created in Argentina within the scope of the Innovation and Artificial Intelligence Laboratory of the School of Law of the University of Buenos Aires and the Ministerio Público Fiscal de Buenos Aires, with the main goal of accelerating bureaucratic processes and free up time for the analysis of complex cases. Its biggest milestone is to predict a solution to a court case in less than 20 seconds, with a 96% success rate. Furthermore, it is able to identify urgent cases -within large volumes of files- in just 2 minutes, which would normally take a human being 96 days. Taking advantage of this AI, while working to consolidate Digital Governments and universal ICT access, we aspire to promote a transition towards a new archetype of public organizations that will make them exponential.

¹⁵⁴ For example, detecting problems faster than using traditional techniques, using artificial intelligence to monitor the implementation of public decisions or to improve citizen participation.

¹⁵⁵ Providing more efficient and effective, but also new services.

¹⁵⁶ For example, by better allocating human and financial resources.

¹⁵⁷ Note here the importance of *open data*, on the impact of which see C. van

consequences of past decisions; collect, analyse and monitor data from daily uses and processes to increase efficiency;¹⁵⁸ as well as create future scenarios for simulation to support decision making.¹⁵⁹

However, it is clear that despite all these benefits, the deployment of AI systems in the public sector is still timid. This is due to several reasons, among them the lack of adequate resources, not only in terms of personnel, financial, time and materials,¹⁶⁰ but also of quality data,¹⁶¹ which is essential considering that it is the basic ingredient of the recipe;¹⁶² as well as certain risks associated with its use,¹⁶³ such as algorithmic discrimination.¹⁶⁴ Potential barriers

Ooijen, D. Osimo, D. Regeczi, E. Simperl, E. Lincklaen Arriëns, H. Holl, J. Dogger, L. van Knippenberg, M. ter Horst and O. Corcho, *Sofie Finn Storan, Rethinking the impact of open data. Towards a European impact assessment for open data*, data.europa.eu, Luxembourg, 2023.

¹⁵⁸ M. Finck, *Automated Decision-Making and Administrative Law*, Max Planck Institute for Innovation and Competition Research Paper no. 19-10.

¹⁵⁹ M. Manzoni, R. Medaglia, L. Tangi, C. Van Noordt, L. Vaccari and D. Gattwinkel, *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, cit., 12.

¹⁶⁰ *Ibidem*, cit., 18.

¹⁶¹ The importance of data is underlined in France by the creation of a *public data service* (*service public de la donnée*). In this regard, see, among others, L. Cluzel-Métayer, *La construction d'un service public de la donnée*, in *Revue Française d'Administration Publique*, no. 167, 3/2018, 491-500. On the other hand, as stated by S. Marcucci, N. González Alarcón, S. G. Verhulst and E. Wullhorst, *Mapping and Comparing Data Governance Frameworks: A benchmarking exercise to inform global data governance deliberations*, in *arXiv:2302.13731*, February 2023, data is a critical resource in today's organisations and society.

¹⁶² Fuel, in the words of B. Barraud, *Vers une quatrième révolution industrielle ? L'AI comme moteur, les données comme carburant*, in *L'intelligence artificielle - Dans toutes ses dimensions*, L'Harmattan, Paris, 2019, 151-184.

¹⁶³ As recalled in the *National Strategy for Artificial Intelligence* of Norway, AI is one of the emerging technologies with the greatest potential benefits, but also the greatest risks.

¹⁶⁴ E. M. Menéndez Sebastián and B. M. Mattos Castañeda, *Better decision-making, algorithmic discrimination and gender biases: a new challenge for the administration of the 21st Century*, cit.

to AI in the public sector have included inadequate data management, insufficient access to large volumes of high-quality data, unsatisfactory data sharing across organizational boundaries,¹⁶⁵ lack of data standards, underdeveloped data governance, conflicting organizational culture, increased global competition, scattered regulation,¹⁶⁶ lack of trust¹⁶⁷ or insufficiently understood impacts.¹⁶⁸

On the other hand, in order to reach a new better administration, it is necessary to go through the digital transition process, which as the name itself evokes, implies going step by step.¹⁶⁹ These include the

¹⁶⁵ It should be borne in mind that, as stated by K. Gauche and R. Ologeanu-Taddei, *Enjeux et services de l'administration électronique locale. Etude de cas*, in *Nouveaux usages de l'internet dans les collectivités territoriales LAE NICE*, Nice, 2011, the term eGovernment does not refer to the Administration being in electronic form, but to a modality of Administration, in short, it refers to the use of ICT to modernise the Administration (internal and external reform).

¹⁶⁶ The need for regulation to address these issues is common to other countries, see, for example, Y. Meneceur, *L'intelligence artificielle en procès. Plaidoyer pour une réglementation internationale et européenne*, Bruylant, Brussels, 2020; L. Bridgesmith and A. Elmessiry, *The Digital Transformation of Law: Are We Prepared for Artificially Intelligent Legal Practice?*, in *Akron Law Review*, vol. 54, Issue 4, 2021, Article 3, 813-826.

¹⁶⁷ To achieve trustworthy AI, which is essential, it needs to meet certain criteria, thus, as stated in National Institute of Standards and Technology, *Artificial Intelligence Risk Management Framework (AI RMF 1.0)*, NIST, January 2023, 12, characteristics of trustworthy AI systems include: valid and reliable, safe, secure and resilient, accountable and transparent, explainable and interpretable, privacy-enhanced, and fair with harmful bias managed.

¹⁶⁸ M. Manzoni, R. Medaglia, L. Tangi, C. Van Noordt, L. Vaccari and D. Gattwinkel, *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, cit., 18.

¹⁶⁹ Thus, as stated by C. Colapietro, *La Proposta di Artificial Intelligence Act: quali prospettive per l'Amministrazione digitale?*, in *CERIDAP*, special no. 1, 2022, 13, the prior digitisation of the Administration is essential for the implementation of AI.

dematerialization of documents, compliance with the “*once only*” principle,¹⁷⁰ good interoperability,¹⁷¹ etc.¹⁷²

In addition to these benefits, there are, once again in this constant duality in which reality presents us, the risks, which leads to the need to analyse them in depth, discarding those that are insurmountable or that, in proportion, outweigh the advantages, and mitigating those that are unavoidable but tolerable.

Very briefly, because I will refer to some of them in greater detail, it is worth highlighting, again following the French *Conseil d'État*, three types of risks: those of a legal nature, which are the main subject of this paper; the risk of acceptability by citizens¹⁷³ and public employees

¹⁷⁰ As indicated by R. Krimmer, A. Prentza and S. Mamrot (eds.), *The Once-Only Principle*, Springer, Switzerland, 2021, 38, the “once-only” principle is a concept in the broader context of eGovernment that aims to ensure that businesses, citizens and other organizations, have to provide specific information to administrations and authorities only once. The principle was defined as one of the key elements of the Tallinn Declaration on eGovernment, adopted at the ministerial meeting held during the Estonian Presidency on 6 October 2017. Compliance with this principle is one of the clear objectives to be achieved, as also pointed out by D.-U. Galetta, S. D’Ancona and P. Provenzano, *Soccorso istruttorio e pubblica amministrazione digitalizzata: riflessioni sulle ‘magnifiche sorti e progressive’ di un istituto dal grande potenziale, ma ancora largamente sottoutilizzato*, in *CERIDAP*, 2/2022, 22-45, who analyse the possible contribution of the institution of *soccorso istruttorio* to the fulfilment of this principle.

¹⁷¹ As G. Carullo, *L’amministrazione quale piattaforma di servizi digitali*, Editoriale Scientifica, Naples, 2022, 21, for example, points out, the need for the administrations’ IT systems to be interoperable through public and open interfaces is essential for the existence of a platform of digital public services. On this issue, see also, among others, A. Campmas, N. Iacob and F. Simonelli, *How can interoperability stimulate the use of digital public services? An analysis of national interoperability frameworks and e-Government in the European Union*, in *Data & Policy*, e19, 2022, 1-24; or A. Hautamäki and K. Oksanen, *Digital Platforms for Restructuring the Public Sector*, 2018, 91-108.

¹⁷² D.-U. Galetta, *Algoritmi, procedimento amministrativo e garanzie: brevi riflessioni, anche alla luce degli ultimi arresti giurisprudenziali in materia*, cit., 501-516.

¹⁷³ In this regard, see the study by G. Wenzelburger, P. D. König, J. Felfeli and A.

-which is linked to the lack of a culture of change, the new relationship with citizens,¹⁷⁴ and, in short, trust in the public-;¹⁷⁵ and, finally, risks from a technical perspective, i.e., the guarantee of security, where cybersecurity¹⁷⁶ comes into play.

As regards the first type of risks, those of a legal nature, it is worth mentioning briefly, among others, the infringement of the right to data protection¹⁷⁷ -in this respect, the access fingerprint of the Estonian system-,¹⁷⁸ damages that may give rise to non-contractual or patrimonial liability, the lack of adequate transparency, the difficult explainability and motivation of decisions¹⁷⁹ -an issue to

Achtziger, *Algorithms in the Public Sector. Why context matters*, in *Public Administration*, 14 November 2022, 1-39. As well as the interesting reflections of the Italian *Consiglio di Stato*, section VI, in its judgment of 13 December 2019, no. 8472.

¹⁷⁴ T. Perroud, *Droits des administrés internautes et téléservices publics*, in *Revue Française d'Administration Publique*, no. 146, 2013, 419-431, also refers to this new relationship and the rights deriving from it.

¹⁷⁵ Transparency is essential for which, as stated in Centre for Data Ethics and Innovation, *Review into bias in algorithmic decision-making*, London, November 2020, 4, transparency is key to helping organizations build and maintain public trust. This also requires simplicity to be understandable, as explained in Britain Thinks, *Complete transparency, complete simplicity. How can the public sector be meaningfully transparent about algorithmic decision making?*, 17 June 2021.

¹⁷⁶ In relation to this issue, reference should be made to the work of M. Fuertes López, *Metamorfosis del Estado. Maremoto digital y ciberseguridad*, Marcial Pons, Madrid, 2022.

¹⁷⁷ Among others, see in this regard, J. L. Domínguez Álvarez, *Inteligencia Artificial, derecho administrativo y protección de datos personales. Entre la dignidad de la persona y la eficacia administrativa*, in *Ius et Scientia*, vol. 7, no. 1, 2021, 304-326. Also R. Martínez Martínez, *Inteligencia artificial desde el diseño. Retos y estrategias para el cumplimiento normativo*, in *Revista Catalana de Dret Públic*, no. 58, 2019, 64-81.

¹⁷⁸ K. Nyman Metcalf, *e-Governance and Good Administration: Examples from Estonia*, cit.

¹⁷⁹ In the words of M. Manzoni, R. Medaglia, L. Tangi, C. Van Noordt, L. Vaccari and D. Gattwinkel, *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, cit., the aforementioned algorithmic bias, opacity and complexity of algorithms.

which I will devote more attention when discussing safeguards-, doubts about imputability,¹⁸⁰ the possibility of discrimination,¹⁸¹ or even certain ethical questions,¹⁸² e.g., with regard to so-called *posthumanism* and human empowerment.¹⁸³

Furthermore, all this, without forgetting other crucial aspects, such as the impact and destruction of specific jobs -although this may be a positive effect in the long run, it will require reallocation of tasks-;¹⁸⁴

¹⁸⁰ Regarding imputability, as well as the liability that may arise and, in particular, the interesting Italian figure of the responsible official, see, among others, the work of A. G. Orofino and R. G. Orofino, *Automazione amministrativa: imputazione e responsabilità*, in *Giornale di diritto amministrativo*, 2005, 1300-1312; or M. C. Cavallaro, *Imputazione e responsabilità delle decisioni automatizzate*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 69-74. The issue of imputability as well as motivation is also addressed by G. Carullo, *Decisione amministrativa e intelligenza artificiale*, in *Diritto dell'informazione e dell'informatica*, Fas. 3, 2021, 431-461.

¹⁸¹ A sample of such possible discriminations is highlighted in V. Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, St Martin's Press, New York, 2018.

¹⁸² N. L. Rodríguez Peña, *Big data e intelligenza artificiale: una aproximación a los desafíos éticos y jurídicos de su implementación en las administraciones tributarias*, in *Ius et Scientia*, vol. 7, no. 1, 2021; 62-84; L. A. Herrera Orellana and M. M. Hidalgo, *Inteligencia artificial y derecho administrativo: problemas y criterios éticos en la incorporación de la AI en la administración pública*, in *Inteligencia artificial y derecho: desafíos y perspectivas*, Tirant lo Blanch, Valencia, 2021, 217-240, J. I. Criado, *Inteligencia Artificial (y Administración Pública)*, in *Economía. Revista en Cultura de la Legalidad*, no. 20, 2021, 348-372, among others.

¹⁸³ In relation to this very interesting topic, it is necessary to refer to the work of Prof. S. Rodotà, *Diritto, scienza, tecnologia: modelli e scelte di regolamentazione*, conference given at the Congress *Scienza e diritto nel prisma del diritto comparato*, Italian Association of Comparative Law, Pisa, 22-24 May 2003, and collected in the proceedings of the congress published by Giapichelli, Turin, 2004, 397-412; or *Del ser humano al posthumano*, in T. de La Quadra-Salcedo and J. L. Piñar Mañas (dirs.), M. Barrio Andrés and J. Toirregrosa Vázquez (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 87-93.

¹⁸⁴ D. Acemoglu and P. Restrepo, *Artificial intelligence, automation, and work. In The economics of artificial intelligence: An agenda*, University of Chicago Press, 2018.

social fragmentation -such as the so-called eco-chambers,¹⁸⁵ or even damage to the natural environment -for example, through energy expenditure-.¹⁸⁶

For many different reasons, and mainly because in a social and democratic state governed by the rule of law, it is crucial to protect the fundamental right to equality and non-discrimination, as well as because the use of AI systems and, in general, of new technology, without respecting this principle, value and right, will lead to a breakdown of public trust in the public authorities, and will move away from the necessary acceptability in the implementation of systems and tools in the evolutionary process from bureaucracy to AI, it is necessary to pay specific attention, albeit briefly, to two latent risks in this digital transformation of public action, namely the digital divide and algorithmic discrimination.

As far as the first one is concerned, we have been talking about the triple digital divide, highlighting the third one in terms of participation in social and political life -when we are in the era of open government-.¹⁸⁷

Undoubtedly, one of the most significant risks in using new technologies is the *digital divide*. This issue is of the utmost importance because if, as it has already been pointed out, one of the keys to citizenship is equality, this cannot be addressed using another element that introduces a more significant fissure in society.¹⁸⁸ It is, therefore, absolutely essential to fight to reduce the

¹⁸⁵ R. Medaglia and D. Zhu, *Public deliberation on government-managed social media: A study on Weibo users in China*, in *Government Information Quarterly*, vol. 34, Issue 3, 2017, 533-544.

¹⁸⁶ R. Schwartz, J. Dodge, N. A. Smith and O. Etzioni, *Green AI*, 2019, *ArXiv:1907.10597 [Cs, Stat]*.

¹⁸⁷ On the issue of the digital divide, see E. M. Menéndez Sebastián and J. Ballina Díaz, *Digital citizenship: fighting the digital divide*, in *European Review of Digital Administration & Law*, vol. 2, Issue 1, 2021, 149-155.

¹⁸⁸ Digital inequality is rooted in structural inequalities and while it cannot yet be solved by technology, it can be made worse by it, so as our everyday lives become

impact of the digital divide, finding solutions that, at least temporarily and until this gap is corrected, do not leave a section of citizens outside the democratic process, outside the public decision-making processes that affect them, outside access to public services, nor exacerbate the already intolerable differences that only violate and damage the genuine idea of citizenship,¹⁸⁹ -set out in the first chapter-.

In my opinion, in addition to the option suggested by some authors of temporarily and provisionally maintaining the two channels of participation: digital and face-to-face,¹⁹⁰ with the limitations that this implies,¹⁹¹ there are also other ways, two in the short term and one in the long term. There are various solutions. The first is the importance of having support offices or access points where citizens would have the means and advice to exercise their rights digitally, of course, with all the necessary guarantees.¹⁹² Secondly, the importance of simplification, making digital public

more digital, it is crucial to include everyone in the digital society, as E. Carmi and S. J. Yates, *What do digital inclusion and data literacy mean today?*, in *Internet Policy Review*, no. 9, Issue 2, 2020, 1.

¹⁸⁹ As J. Tomlison, *Justice in the Digital State. Assessing the Next Revolution in Administrative Justice*, Bristol, Policy Press, 2019, digital technologies have the potential to expand access to public services, but only if they are properly designed.

¹⁹⁰ This is the case of E. Gamero Casado, *El derecho digital a participar en los asuntos públicos: redes sociales y otros canales de expresión*, in De La Quadra-Salcedo T. and Piñar Mañas J. L. (dirs.), Barrio Andrés M. and Toirregrosa Vázquez J. (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 235-236.

¹⁹¹ We should not lose sight of the fact that it is precisely the use of ICTs that involves overcoming some of the difficulties that classic participation presents, such as the so-called unfeasibility, as pointed out by M. I. Álvarez Vélez and F. de Montalvo Jääskeläinen, *La democracia ante los avances de la tecnología: una perspectiva de Derecho Constitucional*, in *Revista de las Cortes Generales*, no. 82, 2011, 287; although it is true that as L. Faure, P. Vendramin and D. Schurmans, *A situated approach to digital exclusion based on life courses*, in *Internet Policy Review*, no. 9, Issue 2, 2020, 15, say, the absence of choice is part of the definition of digital exclusion.

¹⁹² For example, in the Spanish system, registration assistance offices have been strengthened.

services easy to access, understand and implement. And the third way, crucial in my view, is education and training in new technologies, as well as the promotion of their use, and in this case, not only from the perspective of the use of ICTs, but we understand that it is essential that the public authorities place value on the exercise of citizenship, that is, that in education -the fundamental pillar of any society- administrative citizenship is made known and promoted, as well as the new ways of making it effective.¹⁹³ It is essential to educate and train those who are called to be committed citizens.¹⁹⁴

The proposals and progress made by different states in this regard are diverse. Briefly, for example, in Spain, the *Plan Nacional de Competencias Digitales*, of 27 January 2021, the *Plan de Digitalización de Pymes y el Plan de Digitalización de las Administraciones Públicas* of the same date should be briefly mentioned; and in addition, the *Agenda Digital 2025*, the *Carta de Derechos Digitales*, the *Plan para la Conectividad y las Infraestructuras Digitales de la sociedad, la economía y los territorios*, the *Estrategia de impulso al 5G*, the *Estrategia Nacional de Inteligencia Artificial*, etc.; or, the approval of Law 15/2022, of 12 July, *Integral para la igualdad de trato y la no discriminación*, etc. Or the Dutch website <https://www.digitaleoverheid.nl/overzicht-van-alle-onderwerpen/archief/toegankelijkheid/digitale-inclusie/>, the French [oups.gov.fr](https://www.oups.gov.fr),¹⁹⁵ as well as the particular measure in this country on

¹⁹³ Remember the words of Victor Hugo “La liberté commence où l’ignorance finit”.

¹⁹⁴ The importance of education in the very construction of citizenship is clearly shown in Conseil d’État, *La citoyenneté. Être (un) citoyen aujourd’hui*, cit., which argues strongly for the teaching of citizenship in schools. In Spain, this idea was introduced to some extent with the subject “Educación para la ciudadanía” (Education for citizenship), which was established by Royal Decree 1631/2006 of 29 December 2006, following the Recommendation of the Council of Europe (Recommendation (2002)12 of the Committee of Ministers to member states on education for democratic citizenship), but which disappeared completely in 2016.

¹⁹⁵ Referred to by S. Ranchordas, *Automation of Public Services and Digital Exclusion*, in *I-CONnect Blog of the International Journal of Constitutional Law*, March 11 2020.

the right to error of the *Loi n° 2018-727 du 10 août 2018 pour un Etat au service d'une société de confiance*. Not forgetting the proposal for a European Regulation on IA.

Moreover, this digital inequality usually affects already disadvantaged groups,¹⁹⁶ i.e., it is not only a matter of inequality in access to and use of technology but has been seen to reproduce broader social problems and even reinforce existing social and economic inequalities.¹⁹⁷ And, as I have already pointed out, we are talking about a digital divide in three degrees, the first level being access, the second being the skills¹⁹⁸ for meaningful use even if one has access,¹⁹⁹ and the third emphasizes how technology worsens traditional forms of inequality.²⁰⁰

¹⁹⁶ This connects with the concept of administrative vulnerability in A. Nogueira López, *Vulnerabilidad administrativa. Los obstáculos administrativos en el acceso a los programas de vivienda*, in N. Paleo Mosquera (ed.), *Políticas y derecho a la vivienda: gente sin casa y casas sin gente*, Tirant lo Blanch, Valencia, 2020, 241, and that, as the author states, tackling it is a requirement of the social state connected to good administration.

¹⁹⁷ As recalled by S. Ranchordas, *Automation of Public Services and Digital Exclusion*, in *I-CONNECT Blog of the International Journal of Constitutional Law*, *cit.*

¹⁹⁸ It is worth recalling what the doctrine has been indicating regarding the need for not only digital literacy but also algorithmic literacy, as the latter affects the individual's ability to participate in social and political debates and to critically evaluate data; thus, as indicated by L. Rainie and J. Anderson, *The need grows for algorithmic literacy, transparency and oversight*, in *Pew Research Center, Internet & Technology*, February 8, 2017, algorithmic literacy means that individuals are not only aware of how data is collected and used, but also how it can affect the decisions that are made about it.

¹⁹⁹ So this second-degree divide refers to the difference between those who can effectively use digital technologies and those who cannot, as E. Hargittai, *Second-Level Digital Divide: Differences in People's Online Skills*, in *First Monday*, no. 7, Issue 4, 2002.

²⁰⁰ In this regard, see, among others, D. Calderón Gómez, *The third digital divide and Bourdieu: Bidirectional conversion of economic, cultural, and social capital to (and from) digital capital among young people in Madrid*, in *New Media & Society*, vol. 23, Issue 9, 2021, 2534-2553.

Finally, in my opinion, it can be concluded that for there to be good administration and good government, as well as for the new administrative citizenship to be put into practice and effective, it is essential to be aware of the inequality that ICTs themselves can introduce, as well as the potential to increase existing inequalities, and to adopt measures to eradicate them or, otherwise, the basic fundamental right of equality will be violated, a right which is also at the very core of a committed and appropriate citizenship, the idea of a common project, thus turning ICTs from virtue or benefit to *Trojan horse*.

On the other hand, specific mention should be made of algorithmic discrimination, although it should be recalled that algorithm is not synonymous with AI.

In this respect, even though it may be thought that algorithms would not include biases or discriminate –i.e., gender-, some experiences have shown the contrary.²⁰¹ For instance, it is worth mentioning a study from the University of Boston,²⁰² which makes evident that automatic learning techniques to train an artificial intelligence system using Google news solved the analogy “man is to computer programmer, what woman is to X” with the answer to X being equal to housewife.

Another example of this issue has been pointed out in the study *Semantics derived automatically from language corpora necessarily contain human biases*.²⁰³ In this case, an algorithm trained with texts taken from the internet associated female names like Sarah with words

²⁰¹ As explained by S. Leavy, *Gender Bias in Artificial Intelligence: The Need for Diversity and Gender Theory in Machine Learning*, in *GE '18: Proceedings of the 1st International Workshop on Gender Equality in Software Engineering*, Gothenburg, Sweden, May 2018, 14-16.

²⁰² By T. Bolukbasi, K. W. Chang, J. Y. Zou, V. Saligrama and A. T. Kalai, *Man is to computer programmer as woman is to homemaker? debiasing word embeddings*, in *Advances in neural information processing systems*, 2016, 4349-4357.

²⁰³ By authors A. Caliskan, J. L. Bryson and A. Narayanan, and published in *Science*, 14 April 2017, vol. 356, Issue 6334, 183-186.

linked to family, such as parents and wedding. In contrast, male names like John had stronger associations with words attributed to work, such as professional and salary.

It is also worth remembering the algorithm used by Amazon for the selection of its personnel, which had to be discarded because it showed strong gender biases, penalizing resumes that contained the word “woman”.

Another research has demonstrated that *Bing* retrieves pictures of women more frequently when the searches include words considered “warm” such as sensitive or emotional. Conversely, words referring to traits associated with “competence” such as intelligent or rational, tend to be represented by pictures of men. Furthermore, when searching for the word “person” the engine often retrieves more pictures of men than women.²⁰⁴

The paper *Balanced Datasets Are Not Enough: Estimating and Mitigating Gender Bias in Deep Image Representations*²⁰⁵ has found that the algorithm would associate pictures of shopping and kitchens with women. Hence, most of the time, it would deduce that “if she is in the kitchen, she is a woman”. Instead, it would associate images of physical training with men.

An even more straightforward case of algorithmic bias can be found in gendered languages, as revealed by the study *Examining Gender Bias in Languages with Grammatical Gender*.²⁰⁶ This research

²⁰⁴ J. Otterbacher, J. Bates and P. D. Clough, *Competent Men and Warm Women: Gender Stereotypes and Backlash in Image Search Results*, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, Colorado Convention Center, Denver, CO. Association for Computing Machinery, 2017, 6620-6631.

²⁰⁵ Authored by T. Wang, J. Zhao, M. Yatskar, K-W. Chang and V. Ordonez, and published in *arXiv:1811.08489*, 2019.

²⁰⁶ This research has been carried out by P. Zhou, W. Shi, J. Zhao, K-H. Huang, M. Chen, R. Cotterell and K-W. Chang, and published in *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing*, Hong Kong, China, Association for Computational Linguistics, 2019, 5276-5284.

showed gender biases when translating from English to languages with grammatical genders, such as Spanish and French. For example, when the word lawyer was translated from English into Spanish, there was a stronger automatic association with *abogado* (masculine) than *abogada* (feminine). On the contrary, the word nurse was more frequently related to *enfermera* (feminine) than *enfermero* (masculine). In principle, it should have associated both terms with identical probability. Despite the numerous criticisms of recent years, the biases that occur when translating from a language without grammatical genders, such as English, to a language with grammatical genders, such as Spanish or French, are still present nowadays in some automatic translators.

There are also examples in the public sector,²⁰⁷ such as *Correctional Offender Management Profiling for Alternative Sanctions (COMPAS)*²⁰⁸ and *PREDPOL* cases, in the area of crime prediction, where algorithms were found to discriminate from a racial perspective.²⁰⁹ It is also worth mentioning the case of *BOSCO*, regarding the electricity social bond in Spain, *Aadhaar* for social welfare in India, *AMS* regarding Austrian public system to detect probabilities of finding employment,²¹⁰ *System Risk Indication (SyRI)* in the Netherlands for

²⁰⁷ As highlighted by P. Rivas Vallejo, *Discriminación algorítmica: detección, prevención y tutela*, in *XXXI Jornades Catalanes de Dret Social (Triball, discriminación i Covid)*, Barcelona, April 2021, 11-13.

²⁰⁸ At http://www.northpointeinc.com/files/downloads/FAQ_Document.pdf. The discriminatory nature of this assumption, which referred to the likelihood of repeat offending, was highlighted in the Report by J. Angwin, J. Larson, S. Mattu and L. Kirchner, *Machine Bias: There's software used across the country to predict future criminals. And it's biased against blacks*, published on 23 May 2016.

²⁰⁹ See, in relation to this case, M. González, *¿Cómo funciona Predpol, el software que dice predecir dónde van a suceder crímenes*, in *Xataka*, 14 February 2015.

²¹⁰ In this regard, see C. Castillo, *Algorithmic Discrimination*, in *Conference at BCN Analytics Data and Ethics event*, April 2018; and Fröhlich W., Spiecker I. and Döhmann G., *Können Algorithmen diskriminieren?*, in *Verfassungsblog*, 26 December 2018.

detecting fraud in certain benefits,²¹¹ among others.²¹²

The risk that algorithms may discriminate is less acceptable when it comes to Public Administration, which leads to two issues. In the first place, the need to control the use of algorithms that discriminate in the private sphere relies on the Administration as the public authority entrusted by the Spanish Constitution to ensure material and effective equality and remove the obstacles that prevent it. Moreover, the Administration ought to be extremely cautious when employing these instruments in administrative decision-making, which does not mean that their use is prohibited but rather that special measures are required. This is a particularly relevant issue that needs to be addressed, considering the aforementioned cases, as well as the doubts and the debate surrounding the transparency of algorithms *versus* motivation and effective judicial and administrative protection.

The importance of an adequate use of algorithms and the need to introduce precautions in this respect seems to be addressed by the draft regulation of the European Union on new rules for Artificial Intelligence and algorithms. This regulatory framework includes a set of criteria for algorithms and corresponding risk categories.²¹³ In particular, this proposal for regulation at the European level establishes different scenarios: cases in which the employment of artificial intelligence -although not identical to algorithms²¹⁴- whose

²¹¹ In this case see the judgment of the Hague Court of 5 February 2020, ECLI:NL:RBDHA:2020:1878.

²¹² As highlighted by the Défenseur des droits in collaboration with the CNIL (Commission Nationale Informatiques & Libertés), *Algorithmes : prévenir l'automatisation des discriminations*, Paris, 2020, 3, today these processes can be found in areas as essential for individuals as access to social benefits, the police and justice, the functioning of organizations such as hospitals, access to public services or recruitment procedures.

²¹³ In this regard, see A. Huergo Lora, *El proyecto de Reglamento sobre la Inteligencia Artificial*, in *Almacén de Derecho*, 17 April 2021.

²¹⁴ According to the European Ethical Charter on the use of AI in justice

use is prohibited, others are subject to prior authorization,²¹⁵ some have specific provisions,²¹⁶ some are high-risk and require prior verification by a third party²¹⁷ and others for which a kind of prior declaration, commitment to comply with the requirements or *compliance*,²¹⁸ is sufficient.

In short, it can be concluded in this respect that it is extremely urgent to regulate the use of algorithms and AI by the Administrations and that it is necessary to introduce safeguards to avoid possible biases or discriminations. Along these lines, the European Commission has defended an anthropocentric approach in the Communication *Building trust in human-centred artificial intelligence* (COM 2019 640), in the *White Paper on artificial intelligence: a European approach to excellence and trust*,²¹⁹ where ethics play a crucial role;²²⁰ or

systems and their environment of 4 December 2018, algorithm is the finite sequence of formal rules (logical operations and instructions) that allow a result to be obtained from the initial input of information. This sequence can be part of an automated execution process and take advantage of models designed through machine learning; while artificial intelligence is a set of scientific methods, theories and techniques whose aim is to reproduce, by means of a machine, the cognitive abilities of human beings.

²¹⁵ This group includes, for example, remote biometric identification in public places, which is subject to administrative authorization, to be granted only when there is an enabling regulation, for the fight against serious crimes and subject to limits and safeguards.

²¹⁶ Thus, certain applications, such as *chatbot* or *deep fake*, as well as high-risk artificial intelligence applications are subject to various control mechanisms, which are listed in Annex II and regulated in Articles 5-40.

²¹⁷ Such as those for biometric identification and for the operation of critical infrastructures.

²¹⁸ The other group, which does not require such independent verification but will be subject to a kind of responsible declaration, includes typical “predictive” artificial intelligence applications. However, given that they may be subject to some form of discrimination, a different type of prior check may be appropriate.

²¹⁹ From February 2020.

²²⁰ In this vein see also L. Ireni-Saban and M. Sherman, *Ethical Governance of Artificial Intelligence in the Public Sector*, Routledge, London, 2021, which argues that ethical evaluation of AI should be an integral part of public service ethics and

more recently in the *European Declaration on Digital Rights and Principles for the Digital Decade*, COM(2022) 27 final.

If one of the main objectives of the idea of *new public governance* is to regain citizens' trust in institutions, this will be difficult to achieve if inequalities are generated since, as we have already had occasion to explain in other works,²²¹ distrust stems to a large extent from the feeling of inequality. It is, therefore, necessary to prevent the use of AI from increasing the differences that jeopardize the very idea of citizenship.²²²

Other documents take into account this need to protect against possible algorithmic discrimination and point to some possible solutions, highlighting in particular possible preventive control. Thus, some countries have also begun to adopt legal measures in their legislation. For example, the United Kingdom has adopted the *Guide to the General Data Protection Regulation*,²²³ which builds on the *Guide to Data Protection*,²²⁴ the United States has the *Algorithmic Accountability Act*,²²⁵ in France the general regulation of the digital question in *Loi n° 2016-1321 du 7 octobre 2016 pour une République numérique*,²²⁶ as well

that an effective policy framework is needed to provide ethical and evaluative principles for decision-making in the public sphere at both local and international levels.

²²¹ See, E. M. Menéndez Sebastián and J. Ballina Díaz, *¿Qué es la ciudadanía hoy?*, in Alonso R. (dir.) and Beatriz (coord.), *Objetivos de desarrollo sostenible*, Thomson Reuters, Navarra, 2022, 341-365.

²²² As J. Tomlison, *Justice in the Digital State. Assessing the Next Revolution in Administrative Justice*, cit., digital technologies have the potential to expand access to public services, but only if they are properly designed.

²²³ Available at <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/>.

²²⁴ See <https://ico.org.uk/media/for-organisations/guide-to-data-protection-1-1.pdf>.

²²⁵ Available at <https://www.congress.gov/bill/116th-congress/house-bill/2231/all-info>.

²²⁶ On this law and what it entailed, see, among others, S. Chatry and T. Gobert (eds.), *Numérique : nouveaux droits, nouveaux usages*, Mare & Martin, Le Kremlin-Bicêtre, 2017.

as the work carried out by *Etalab*,²²⁷ including the preparation of the *Guide d'ouverture des codes sources publics : guide pratique*,²²⁸ or the progress made in this area in Canada²²⁹ with the guide on how to use algorithms ethically, the Netherlands with its tool to make algorithms openly available, or New Zealand with the algorithms charter for citizens to understand how the government uses personal data.

Also worth mentioning is the *Toronto Declaration: Protecting the right to equality and non-discrimination in machine learning system* of 2018,²³⁰ which advocates equality and non-discrimination in machine learning-based systems and aims at a sort of Public Authority for Algorithms; or the *Principles for Accountable Algorithms and a Social Impact Statement for Algorithms*²³¹ of the FAT,²³² among others.

From another perspective, it is also worth mentioning the proposal of the European network of experts on gender equality and non-discrimination, which proposes the system it calls *PROTECT*,²³³ an

²²⁷ <https://etalab.github.io/algorithmes-publics/guide.html>.

²²⁸ The French case is of great interest, as they understand that algorithms are a form of public action and as such are also subject to the obligation of accountability, so there must be transparency, but also explain the operation and the objectives pursued with the use of algorithms. Thus, it is understood in this system that in order to make fair decisions by means of algorithms, 4 requirements are necessary: transparency, requiring that the procedure is described; intelligibility, being necessary that the process is understandable for the interested parties; fairness, which implies that the procedure is actually used in a complete and precise manner; and equal treatment, therefore, that no person has been favored more than another.

²²⁹ On the new governance in Canada see D. Mockle, *La gouvernance publique*, LGDJ, Paris, 2022.

²³⁰ Available at https://www.accessnow.org/cms/assets/uploads/2018/08/The-Toronto-Declaration_ENG_08-2018.pdf.

²³¹ At <https://www.fatml.org/resources/principles-for-accountable-algorithms>.

²³² *Fairness, Accountability and Transparency in Machine Learning*.

²³³ J. Gerards and R. Xenidis, *Algorithmic Discrimination in Europe: Challenges and Opportunities for EU Gender Equality and Non-Discrimination Law*, European network

acronym that stands for *prevent, redress, open, train, explain, control* and *test*, which implies seven key actions to address algorithmic discrimination; or the European Economic and Social Committee's 2019 *Artificial Intelligence for Europe* and the 2019 *Ethical Guidelines for Trustworthy Artificial Intelligence*, which insist that the use of AI should not discriminate, but on the contrary, that these tools should be used to mitigate existing biases and discrimination.²³⁴

Finally, from comparative experience it can be concluded, firstly, that there is a clear concern about the appropriate use of AI and, in particular, algorithms in public decision-making, which has led several countries to take measures in this regard, as well as the need to regulate such use, which has led the European Union to adopt various documents and initiate a regulation that can serve as a starting point;²³⁵ secondly, that it is essential in this respect to train public employees in the ethical use of algorithms, as well as society in general; thirdly, the importance of avoiding discrimination with prior instruments, e.g., analyses, evaluations, audits,²³⁶ certifications, etc.,²³⁷ the use of other measures, such as the prohibition of certain uses of algorithms or prior authorization, in line with what the European Union is proposing in the draft Regulation on AI regulation, to which I have already referred, should also not be ruled out; fourthly, the crucial role of transparency in the use of algorithms, where, as the French system has shown, it is not enough to be able to know it, but also to

of legal experts in gender equality and non-discrimination, Publication Office, European Union, 2020.

²³⁴ Thus, in particular requirement no. 5 refers to diversity, non-discrimination and equity.

²³⁵ Examples include the 2018 *EU Strategy on Artificial Intelligence* or the *White Paper on Artificial Intelligence: A European approach for excellence and trust* by 2020.

²³⁶ It should be recalled that it is also referred to in art. 41 of Spanish Law 40/2015, with regard to automated administrative action.

²³⁷ For example, New Zealand has an advisory group on data ethics and the Netherlands Chamber of Audit has investigated the use of algorithms in the public sector.

understand how it works,²³⁸ as it is essential from the perspective of accountability²³⁹ and even from the need for motivation imposed by Spanish legal system, which, as a minimum, must satisfy the *right to explanation*.²⁴⁰

This last issue deserves an express mention, as it has already been made clear and will be explored in greater depth, as it is clearly connected to the right to *good administration* and to effective administrative protection itself. Without knowing the reasons for the administrative decision, it is difficult to know whether or not it is discriminatory, whether it has been adopted in the right way, whether it complies with the applicable regulations, and, of course, all of this leads to the impossibility of fighting it properly and, therefore, also affects effective judicial protection.

1.4. *Regulated powers and discretionary powers*

In summary, given the abundant existing bibliography, it is worth referring to the distinction between regulated and discretionary powers. In this respect, there is no unanimity. Thus, some argue that it is not appropriate to make discretionary decisions through IA systems,²⁴¹ while other authors have nuanced positions in the sense that without radically excluding this type of IA application,

²³⁸ Transparency and explainability are also two elements referred to in the OECD Council *Recommendation on Artificial Intelligence* of 22 May 2019.

²³⁹ Although the proposed EU Regulation on the regulation of algorithms does not demand total transparency, but rather transparency that is sufficient and compatible with the fulfilment of the legal obligations of the user and the provider (art. 10), as indicated by A. Huergo Lora, *El proyecto de Reglamento sobre la Inteligencia Artificial*, cit.

²⁴⁰ As discussed by P. Rivas Vallejo, *Discriminación algorítmica: detección, prevención y tutela*, cit, 64.

²⁴¹ J. Ponce Solé, *Inteligencia artificial, Derecho administrativo y reserva de humanidad: algoritmos y procedimiento administrativo debido tecnológico*, cit.

they restrict it to a greater extent than in the sphere of regulated powers, which is more suitable for the use of these tools.²⁴²

Beforehand and in general, it must be agreed that for there to be discretionary power, there must be a certain criterion of opportunity:²⁴³ political, technical or even legal.

On the other hand, in my opinion, both regulated and discretionary decisions must be adequately reasoned. Thus, although formal reasons are not strictly required for the former, this does not imply that they do not have to be given,²⁴⁴ since in the event of a challenge, it will be necessary to be able to verify that the rules laid down in the regulation have been complied with. Therefore, in my opinion, the addressee -especially if he or she is the injured party- must be able to know how the rule has been applied, as it may result in deviation or error, precisely because of a poor design of the system, formula or algorithm used.²⁴⁵

In other words, if, for example, an AI system or an algorithm is used to apply the scale in the bidding of a contract, even if there is no margin for discretion, since the criteria to be evaluated and the corresponding scores are clearly established in the bidding documents, it will be necessary to be able to verify that the

²⁴² I. Martín Delgado, *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, 9; and M. Fuertes López, *Reflexiones ante la acelerada automatización de actuaciones administrativas*, cit.

²⁴³ M. Sánchez Morón, *Derecho Administrativo. Parte General*, Madrid, Tecnos, 2020, 90-96.

²⁴⁴ Art. 296 TFEU establishes that every decision entails a greater or lesser obligation to state reasons. On this provision, as well as on the obligation to state reasons in general in the European Union, see J. Ziller, *Les fondements de l'obligation de motiver en droit de l'Union européenne : un retour aux sources*, in *Cahiers de la recherche sur les droits fondamentaux*, no. 17, 2019, 45-53.

²⁴⁵ One might think that, as C. Drösser, *Total berechenbar? Wenn Algorithmen für uns entscheiden*, Hanser, München, 2016, 10, even if their calculations may be impersonal, someone has always decided them: either the programmer or their applicator.

algorithm used reliably reflects what is established in the scale.²⁴⁶

It is also necessary to distinguish between a decision made entirely by an AI system or other similar tools and one in which they support the decision.²⁴⁷ It should also be borne in mind that AI and automated action are not the same thing. This nuance must be taken into account given that there are regulations that are based on one or the other aspect.^{248 - 249}

Thus, the German *Verwaltungsverfahrensgesetz*,²⁵⁰ in art. 35a, in the chapter on administrative acts, refers to the fully automated issuing of acts,²⁵¹ prohibiting their production in this way when there is discretion or margin of appreciation.²⁵² Furthermore, in the field of

²⁴⁶ I have already referred to this issue in the book E. M. Menéndez Sebastián, *Las garantías del interesado en el procedimiento administrativo electrónico: luces y sombras de las nuevas Leyes 39 y 40/2015*, cit., 89.

²⁴⁷ Which, as the doctrine has been pointing out, is the majority for the time being G. Vestri, *La inteligencia artificial ante el desafío de la transparencia algorítmica. Una aproximación desde la perspectiva jurídico-administrativa*, in *Revista Aragonesa de Administración Pública*, no. 56, 2021, 393.

²⁴⁸ On the other hand, this highlights the pressing need for a European regulation on digitisation and also AI, which sets out guiding principles. J. von Lücke, *Digitalisierung von Staat und Verwaltung: Leitbilder, Erfolge und Defizitanalyse im Kontext der Corona-Pandemie*, in *CERIDAP*, special no. 1, 2022, 69-108.

²⁴⁹ Indeed, as H. C. H. H. Hofmann, *Comparative Law of Public Automated Decision-Making. An Outline*, in *CERIDAP*, 9 January 2023, jurisdictions within the EU and countries around the world are beginning to regulate the use of public Automated Decision Making (ADM). The legal framework thereof differs considerably, and its development is at an early stage. This contribution sets out a possible comparative research framework, with other words elements to compare the different solutions developed by the legal systems in the face of challenges of ADM.

²⁵⁰ http://www.gesetze-im-internet.de/vwvfg/_35a.html.

²⁵¹ Which was included in the 2016 reform, E. Buoso, *Fully Automated Administrative Acts in the German legal System*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 113-122.

²⁵² Specifically, it can be translated as “An administrative act can be dictated completely automatically, as long as it is permitted by law and there is no discretion or margin of appreciation”. For some authors, such as A. Huego

digitization²⁵³ the two German regulations to be taken into account are the *Online Access Act (Onlinezugangsgesetz)*²⁵⁴ and the *Single Digital Gateway Regulation (EU) 2018/1724*. Also worth mentioning is the *Digitalstrategie Gemeinsam digitale Werte schöpfen*.²⁵⁵

Precisely in relation to the issue of automated decisions is where the Spanish system has provided for some issues,²⁵⁶ albeit very brief, such as art. 41 of Law 40/2015,²⁵⁷ now developed by article 13 of the *Reglamento de actuación y funcionamiento del sector público por medios electrónicos*, approved by Royal Decree 203/2021, of 30 March.

In my opinion, this regulation, which is based on the premise that a regulatory provision is necessary to authorise in each case that the administrative action be carried out in an automated manner, comes to converge in terms of this requirement with what is stated in art. 22.2, b) of the *General Data Protection Regulation (GDPR)*,²⁵⁸ along

Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, cit., automation is not strictly coincident with artificial intelligence.

²⁵³ However, as J. Botta, *Federalism, legal fragmentation and register modernization: challenges for the digital transformation of public administration in Germany*, in *CERIDAP*, special no. 1, 2022, 109-133, points out, Germany, despite its efforts, is not one of the leading countries in eGovernment.

²⁵⁴ It obliges the Federal Government and the Länder to offer all their administrative services and benefits also in digital format via their own administrative portals by the end of 2022.

²⁵⁵ Adopted in August 2022, it prioritizes three key projects: modern, efficient and sustainable networks and availability of data and data tools; secure and user-friendly digital identities and modern registries; international uniform technical standards and norms.

²⁵⁶ E. Gamero Casado, *Automated Decision-Making Systems in Spanish Administrative Law*, in *CERIDAP*, 2023.

²⁵⁷ In this regard, see what has been said in E. M. Menéndez Sebastián, *Las garantías del interesado en el procedimiento administrativo electrónico: luces y sombras de las nuevas Leyes 39 y 40/2015*, cit.

²⁵⁸ It should be borne in mind that within the content of this fundamental right, it has been understood that it also includes the right to be informed about the processing of data and, in particular, the Spanish *Tribunal Constitucional* in its ruling 292/2020 has stated that the right to require prior consent for the collection and use of personal data, the right to know and be informed about the

the same lines as Art. 47 of *Loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés*, which in turn, in providing for the exceptions mentioned in the aforementioned provision of the GDPR²⁵⁹ expressly refers to the case provided for in the CRPA (Art. L311). There are also certain provisions in some sectoral regulations.²⁶⁰

However, it is also evident that this regulation on automated

destination and use of such data and the right to access, rectify and cancel such data. In short, the power of disposal over personal data (...) this power of disposal over one's own personal data is worthless if the data subject does not know what data are held by third parties, who holds them and for what purpose. In this respect, see also M. Medina Guerrero, *El derecho a conocer los algoritmos utilizados en la toma de decisiones. Aproximación desde la perspectiva del derecho fundamental a la protección de datos*, in *Teoría y Realidad Constitucional*, no. 49, 2022, 143; or A. Palma Ortigosa, *Decisiones automatizadas en el RGPD. El uso de algoritmos en el contexto de la protección de datos*, in *Revista General de Derecho Administrativo*, no. 50, 2019.

²⁵⁹ In relation to this rule, see also M. Finck, *Blockchains and Data Protection in the European Union*, in *European Data Protection Law Review*, no. 1, 2018, 17-35.

²⁶⁰ An example of these sectorial authorizations can be found in the area of offences and penalties in social and social security matters, where, as from Royal Decree-Law 2/2021, of 26 January, *de refuerzo y consolidación de medidas en materia social en defensa del empleo*, implemented by Royal Decree 688/2021, of 3 August, *por el que se modifica el Reglamento General sobre procedimientos para la imposición de sanciones por infracciones de orden social y para los procedimientos liquidatorios de cuotas de la Seguridad Social*, approved by Royal Decree 928/1998, of 14 May, it is possible not only to adopt and automatically notify decisions in the procedures for the management of social security benefits, but also to produce reports on the production of the reports on social security benefits, approved by Royal Decree 928/1998 of 14 May 1998, allows not only the automated adoption and notification of decisions in Social Security benefit management procedures, but also the production of automated infringement reports, which are transformed into a sanction proposal if the alleged infringer does not present any allegations. However, it should be borne in mind that, depending on the concept of artificial intelligence used, it can be understood, as A. Huergo Lora does, *Administraciones de la Administración de la Seguridad Social (Administraciones de la Administración de la Seguridad Social)*. Huergo Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, cit., 82, that this requirement of prior regulation and/or authorization does not affect the use of

administrative action is not mainly thinking, perhaps not even tangentially, about the use of AI systems, unlike the recent provision contained in art. 23 of Law 15/2022, of 12 July, *Integral para la igualdad de trato y la no discriminación*, which does refer to AI and automated decision-making mechanisms; or art. 16.1, l) of Law 1/2022, of 13 April, on *Transparencia y Buen Gobierno* of the Valencian Community.

In this respect, it is necessary to point out an important difference with the French system, given that the aforementioned CRPA does require the same transparency both when it is a decision totally adopted through automated processing and when it is a decision support tool²⁶¹. Moreover, consider that this system revolves around the transparency obligation, in this case, i.e., when referring to individual administrative decisions, around the term “algorithmic processing”, a truly broad concept as it extends beyond AI or machine learning algorithms, e.g., an Excel workbook is an algorithmic process. Similarly, algorithmic processing can also exist in the form of a non-computerized document, e.g., a scoring table for a project.²⁶²

In any case, what is clear is that the AI system cannot unseat the human being, and to operate freely, it is imperative that humans are able to understand the capacity and limits of the system fully,

artificial intelligence systems that do not give rise to automated administrative action.

²⁶¹ It should be noted that the rule speaks of “algorithmic processing” and that, as Etalab, *Expliquer les algorithmes publics*, cit., 8, rightly points out, this expression includes both cases. Also that in this case it refers to individual administrative decisions, for the purposes of what is meant by this, reference should also be made to Art. L200-1 of the CRPA and to the *Circulaire du 24 décembre 1997 relative à la mise en oeuvre de la déconcentration des décisions administratives individuelles*, whose Art. 1.1 provides a notion of what is to be understood by “individual administrative decision” where, among other things, it specifies that the addressees may be one or several, provided they are identified by name, that they may be natural or legal persons, that contracts are excluded, etc.

²⁶² Etalab, *Expliquer les algorithmes publics*, cit., 14.

correctly interpret the results it produces, monitor the operation and detect anomalies, and even decide to interrupt its operation -what has been called the “stop button”- also raising the question of reversibility,²⁶³ in line with the Danish *Administrative Procedure Act*.²⁶⁴

It is also necessary to bear in mind that even in discretionary decisions, there is nothing indifferent to the law,²⁶⁵ since, in my opinion, good administration obliges the best decision to be taken, following due diligence and procedure.²⁶⁶

Also, as mentioned above, such tools should not be used when empathy is necessary or desirable in decision-making.²⁶⁷

Nor should we forget that algorithmic predictions, as I said above, are a different way of approaching a problem or making a decision²⁶⁸ since they arrive at the result through correlations, not through causal relationships,²⁶⁹ nor through personal perception or intuition.

Does this necessarily exclude the use of AI? In my opinion, it will depend on the specific case, being simpler in regulated cases. This even leads us to the need to delimit precisely what is meant by

²⁶³ Conseil d’Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit.

²⁶⁴ Thus, explains H. M. Motzfeldt, *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022, that this rule provides that in case of errors, defects or deficiencies detected in any technology used by public bodies, they must be rectified or stopped if their further use may present a risk.

²⁶⁵ J. Ponce Solé, *La discrecionalidad no puede ser arbitrariedad y debe ser buena administración*, in *Revista Española de Derecho Administrativo*, cit.

²⁶⁶ E. M. Menéndez Sebastián, *De la función consultiva clásica a la buena administración. Evolución en el Estado social y democrático de Derecho*, cit.

²⁶⁷ Conseil d’Etat, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 73.

²⁶⁸ A. Huergo Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, cit.

²⁶⁹ J. Berryhill, K. Kok Heang, R. Clogher and K. McBride, *Hello, World: Artificial Intelligence and its Use in the Public Sector*, cit.

discretion, to distinguish the margin of appreciation when determining the concurrence of indeterminate legal concepts (also known as weak discretion) from technical discretion, etc. In short, the cases in which it is clearest to resort to these tools are those in which the elements to be considered can undoubtedly be parameterized without any opportunity, for example, a clear and precise scale.

In short, the precautionary principle and the principle of proportionality should be used as a starting point to analyse in each specific case whether the AI system is better than human decision-making.²⁷⁰ For example, is the application of a scale established for awarding a contract or a subvention necessarily discretionary, i.e., if, for example, the points to be awarded in each case are established in the call for tenders, is the creation of a tool that translates this “legal code” into a computer program, the concretization of discretionary power, even a technical one? Apparently not, since it leaves no room for subjective assessment on the basis that this is a requirement inherent to discretion. It is a different matter whether certain aspects must be evaluated or assessed in order to determine in the specific case the specific score to be assigned to an application or a tender, even within an established score range.

Moreover, it seems that even in the aforementioned case, in which the application of each criterion of the scale is clear, for example, X points for every 50 workers, it could even be doubtful that AI is involved, even if its application is automated. In fact, in procurement, award criteria are classified into those that require subjective assessment and those that are applied automatically; in the latter case, it does not seem that it can be classified as a discretionary power but rather as a regulated one.

In any case, in my opinion, there may be AI systems that facilitate

²⁷⁰ The principles of loyalty and vigilance have already been alluded to by the CNIL, *Comment permettre à l'homme de garder la main ? Les enjeux éthiques des algorithmes et de l'intelligence artificielle*, France, 2017, 61.

or support decision-making, or even serve to reduce “discretionally”,²⁷¹ but they should not be used to make the final decision, especially when it is clear that this requires human capabilities that this type of tool lacks, empathy in particular, but even subjective assessments based on reasoning different from that of AI, especially if we are talking about algorithmic prediction based on correlations, as this may not always be presented as the best way to decide, and will therefore undoubtedly depend on the context and the requirements of each decision-making process.

Furthermore, of course, in my opinion, it should be banished when its use cannot comply with all the necessary guarantees,²⁷² particularly transparency and explainability.²⁷³ In this respect, the scarce existing provisions in relation to the use of AI by the Administrations, specifically the aforementioned art. 23 of Spanish Law 15/2022, of 12 July, *Integral para la igualdad de trato y la no discriminación*, point to this. Furthermore, in the absence in the Spanish system of specific regulations governing, for the time being, the use of these tools in the public sphere, it is necessary to resort to the applicable general rules, both in terms of administrative procedure (art. 35 of Law 39/2015, regarding the

²⁷¹ On this issue see P. A. Busch and H. Z. Henriksen, *Digital Discretion: A Systematic Literature Review of ICT and Street-level Discretion*, 1 January 2018, 3-28.

²⁷² On these guarantees, see, among others, J. Valero Torrijos, *The Legal Guarantees of Artificial Intelligence in Administrative Activity: Reflections and Contributions from the Viewpoint of Spanish Administrative Law and Good Administration Requirements*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 55-61.

²⁷³ The role of principles such as transparency, accountability or responsibility are key to trustworthy artificial intelligence, as the OECD has also indicated in various documents, e.g., *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449, 2022; *Declaration on a Trusted, Sustainable and Inclusive Digital Future*, OECD/LEGAL/0488, 2022; *Putting people first in digital transformation: Background paper for the CDEP Ministerial meeting*, no. 339, 2022; *Harnessing the power of AI and emerging technologies: Background paper for the CDEP Ministerial Conference*, no. 340, 2022; or OPSI, *Good Practice Principles for Ethical Behavioural Science in Public Policy*, OECD, 2022.

motivation of acts), and, for example, to the Spanish LTAIPBG,²⁷⁴ or to the Constitution itself and the general principles, many of which are included in the other rules (art. 3 of the *Ley de Régimen Jurídico del Sector Público*).

All this leads to the conclusion that those IA systems that cannot comply with these general guarantees, applicable to all cases, should not be applied to the sphere of the Administrations, especially as far as formalized activity is concerned and, specifically, to administrative procedures.²⁷⁵ This is precisely because of the particularities of individual administrative decisions, although, as has already been said, this does not imply that certain guarantees should not also be complied with in material activity. It has already been seen that in the field of technical or material activity, the same degree of demand may not be required, although it is not exempt, for example, from transparency, since it is clear that if it is decisive in the functioning of the Administration, it must be accountable, and without forgetting that, furthermore, it fits in with the very concept of public information.

However, as has also been said, one issue is the decision taken through AI, especially using *machine learning* or *deep learning*, and another is the use of systems that help to facilitate the decision because, in this case, we should not disregard this help,²⁷⁶ for example, if it contributes to greater knowledge that improves the decision. However, it should be borne in mind that in such cases, it

²⁷⁴ It should be recalled that in the right of access, the general rule is that while the administrative procedure is ongoing, access by the interested parties takes place through Spanish Law 39/2015 and not through the LTAIPBG; whereas once it is concluded and closed, the right of access is exercised in accordance with the provisions of the LTAIPBG.

²⁷⁵ The relevance of the administrative procedure is highlighted in M. Giavazzi, *Anatomia del proceso amministrativo. Riflessioni sull'autonomia processuale negli Stati dell'UE*, Editoriale Scientifica, Naples, 2021.

²⁷⁶ M. Fuertes López, *Reflexiones ante la acelerada automatización de actuaciones administrativas*, cit.

will also be necessary to know to what extent it influences the decision, as it may be part of the motivation. Think clearly of simulators, which show the possible consequences of a decision and thus contribute to better decision-making.

In this line, the French regulation points out that in the CRPA, not by chance, when referring in Art. L311²⁷⁷ - ²⁷⁸ to the right to communication it expressly mentions that any individual decision taken on the basis of algorithmic processing must include an explicit statement informing the data subject and, that furthermore, the rules defining this processing, as well as the main characteristics of its application, shall be communicated by the administration to the data subject if he/she so requests.²⁷⁹ In France, however, there

²⁷⁷ In particular, this provision is contained in Article L311-3-1, although it qualifies that without prejudice to the application of the second paragraph of Article L. 311-5, which refers to the limits to the right of access in terms similar to Article 14 of the Spanish LTAIPBG, and that the conditions for the application of this article shall be established by decree in the *Conseil d'État*.

²⁷⁸ From a data protection perspective see A. Boto Álvarez, *Tratamiento de datos personales: entre la protección francesa de la vida privada y el mercado digital único*, in *Revista General de Derecho Administrativo*, no. 49, 2018, 6-7.

²⁷⁹ More specifically, Article R311-3-1-1 states that the explicit reference provided for in Article L. 311-3-1 indicates the purpose of algorithmic processing. It recalls the right, guaranteed by this article, to obtain communication of the rules defining this processing and the main characteristics of its application, as well as the procedures for exercising this right of communication and referral, where appropriate, to the *Commission d'accès aux documents administratifs*, as defined in that Book; for its part, Art. R311-3-1-2, also introduced by *Décret n° 2017-330 du 14 mars 2017 relatif aux droits des personnes faisant l'objet de décisions individuelles prises sur le fondement d'un traitement algorithmique*, lays down that the Administration shall communicate to the person who is the subject of an individual decision taken on the basis of algorithmic processing, at the latter's request, in an intelligible form and provided it does not violate secrets protected by law, the following information: 1° The extent and manner of contribution of the algorithmic processing to decision-making; 2° The data processed and their sources; 3° The processing parameters and, where appropriate, their weighting, applied to the situation of the data subject; and 4°

are three types of obligations in relation to this issue, those from the perspective of data protection,²⁸⁰ those relating to the transparency of the CRPA algorithms, and those relating to the openness of the source code.²⁸¹

Etalab's statement on what is implied by the principle of responsibility for algorithms is noteworthy and illustrative, indicating that it entails at least the following issues: information, indicating when an algorithm is used; description, specifying the

The operations carried out by the processing. It should be borne in mind in the case of the Spanish LTAIPBG that the aforementioned First Additional Provision of the Law provides that the regulations governing the corresponding administrative procedure shall be applicable to access by those who have the status of data subjects in an ongoing administrative procedure to the documents included in the same, evidently alluding to the specific case of data subjects in the administrative procedure and its regulation in Law 39/2015. On the other hand, when the procedure is no longer ongoing, the person who was interested is no worse off than the ordinary citizen and, therefore, may request access through the LTAIPBG. In short, with regard to this issue, the general rule is that while the procedure is ongoing, access by the interested parties takes place via the path of Law 39/2015 and not the LTAIPBG (R/0056/2015, of 16 April and R0025/2015, of 17 April, both of 2015 and of the Spanish *Consejo de Transparencia y Buen Gobierno* (CTBG); whereas once it is concluded and closed, the right of access is exercised via the path of the LTAIPBG (R/0035/2015, of 10 June 2015, of the CTBG).

²⁸⁰ In this regard, see in particular Article 119 of *Loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés*, which specifies that any natural person who can prove his identity has the right to question the controller of personal data in order to obtain (5) information enabling him to know and oppose the logic underlying the automated processing in the event of a decision taken on the basis of the automated processing and which produces legal effects with regard to the data subject.

²⁸¹ In this regard, see Etalab, *Ouvrir les codes sources*, 2022 (guides.etalab.gouv.fr), which distinguishes between four levels of openness of source codes, level A or contributory, where source code is not only published, but external contributions are actively sought and processed; level B or open, where source code is published, contributions are dealt with but not actively sought; level C or published, where source code is published but external contributions are not; and level D or non-releasable, where source code is not publicly available.

general functioning of the algorithm; justification, explaining the objectives pursued and the reasons for using this algorithm; expression of its effects, explaining an individual result, but also specifying the general and particular impacts; making it accessible, by publishing the source code²⁸² and the associated documentation; and allowing for feedback, indicating the possible means of recourse.

Specifically, the CRPA requires three obligations in this regard, namely to provide general information (Art. L312-1-3),²⁸³ to include an explicit mention in the decision (Art. L311-3-1) and to provide individual information on request (Art. R311-3-1-2). Reference may also be made to the need for an inventory of the main algorithmic processing operations used to make individual administrative decisions (Art. L312-1-2 CRPA).²⁸⁴

²⁸² It is understood in the French system as an administrative document in the file, which must be public, provided that the administration has the intellectual property, it is completed (otherwise it should not be in use) and it is not affected by any limits such as commercial and industrial secrecy, State security, public safety, or the investigation and prevention of offences (Etalab, *Ouvrir les codes sources*, cit., 9). As explained above, this qualification as an administrative document is expressly established in the *Communication of the source code of the logiciel simulant le calcul de l'impôt sur les revenus des personnes physiques* (Avis de CADA (Commission d'accès aux documents administratifs) 20144578 Séance du 08/01/2015).

²⁸³ It establishes a general obligation to publish online the rules defining the main algorithmic processes used in the exercise of their functions when they are the basis for individual decisions, i.e., an obligation of active publicity. However, it should be noted that the general information obligation only applies to administrations with more than 50 full-time equivalent agents and/or employees and to local authorities with more than 3500 inhabitants. Thus, as an inventory to which I will refer in the following note. See also for its content what is said in Etalab, *Expliquer les algorithmes publics*, 18-20. Note Loi n° 2016-1321 of 7 October 2016 for a *République numérique*, which introduced some of these modifications and prioritizes openness and re-use.

²⁸⁴ In particular, it provides that, without prejudice to the secrets protected under the second paragraph of Article L. 311-5, the administrations referred to in the first paragraph of Article L. 300-2, with the exception of legal persons whose number of agents or employees is below a threshold fixed by decree (see

Very briefly, as regards general online information, you have to publish the rules defining the main processing used in the performance of your functions when they form the basis for individual decisions, but, in addition, you must also include online and in documents (notices, notifications) a statement specifying the purposes of the processing, a reminder of the right of access and the modalities of exercising this right in order to exercise this right. On the other hand, as regards individual information, it should provide, upon request of the data subject, the extent and method of algorithmic processing in the decision-making process, the data processed and their sources, the processing parameters and their weighting, applied to the data subject's situation; and the operations performed by the processing.²⁸⁵

Also, in this direction, the case law of the Italian *Consiglio di Stato*, which can be considered a pioneer in this area²⁸⁶ and which, in the absence of adequate regulation, has been defining the conditions of admissibility of algorithmic decisions,²⁸⁷ applying the principles of administrative procedure to the new problems.²⁸⁸ The issue of transparency, accessibility, intelligibility, etc., regarding the use of AI

the previous footnote), shall publish online the rules defining the main algorithmic processes used in the exercise of their functions when they are the basis for individual decisions.

²⁸⁵ Etalab, *Explaining public algorithms*, cit., 9.

²⁸⁶ In relation to Italian jurisprudence on this matter, it is worth mentioning, among other studies, N. Muciaccia, *Algoritmi e procedimento decisionale: alcuni recenti arresti della giustizia amministrativa*, in *federalismi.it*, no. 10/2020, 344-368; or P. Piselli, *Algoritmi, automazione e pubblica amministrazione: gli orientamenti della giurisprudenza e le prospettive di implementazione*, in *TEME*, 2020.

²⁸⁷ On the nature of the algorithmic administrative decision, see B. Spampinato, *Per un primo inquadramento teorico della decisione amministrativa algoritmica*, in *Rivista Giuridica AmbienteDiritto.it*, fasc. 3/2021.

²⁸⁸ E. Carloni, *LA, algoritmos y Administración pública en Italia*, in *IDP: revista de Internet, derecho y política*, no. 30, 2020, 1-12.

by administrations in Italy has also been the subject of in-depth analysis by both case law and doctrine.²⁸⁹

Thus, as pointed out by some authors,²⁹⁰ the use of algorithms and AI systems in the context of administrative action has put the guarantees of administrative procedure to the test. In the absence of a legislative discipline on the matter at a national level, Italian administrative judges have developed the so-called principles of algorithmic legality, mostly taken from the GDPR, in order to protect the legal situation of citizens in the administrative procedure. In particular, the pronouncements impose on public administrations the obligation to respect the principles of the knowability of the algorithm,²⁹¹ of non-exclusivity of the algorithmic decision and of algorithmic non-discrimination.

Therefore, and as I said when analysing the differences in the use of IA in material and formalized activity, it is also appropriate to distinguish between individual decisions, in which it is more appropriate to speak of motivation, and collective decisions, in which it is also appropriate to speak of transparency, but to a certain extent linked to accountability,²⁹² in short, it is important

²⁸⁹ In this regard, reference should be made to the exhaustive work of A. G. Orofino, *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, cit. 193-236.

²⁹⁰ F. Nassuato, *Legalità algoritmica nell'azione amministrativa e regime dei vizi procedurali*, in *CERIDAP*, special no. 1, 2022, 150-202.

²⁹¹ As I. Masi, *L'intelligenza artificiale al servizio della pubblica amministrazione 2.0*, in *Diritto & Diritti*, 2017.

²⁹² However, it should be borne in mind that despite the reference in the explanatory memorandum of the Spanish LTAIPBG to accountability and the interpretation made in this direction by the Spanish CTBG itself, the case law of the Spanish *Tribunal Supremo* has been denying that each request for the right of access must be justified in this specific argument, given that the regulation itself dispenses with the need to justify the request. The subjective delimitation of the right of access in the LTAIPBG is very broad, as the right is recognized for "all persons". It is clear that this is a universal right, not fundamental but of legal configuration, in respect of the exercise of which it is not necessary to give

not to lose sight of the fact that it should be possible to verify whether the actions of the Administration are guided towards the achievement of the general interest.²⁹³

1.5. *Better services or more control?*

Very briefly, just to point out another bifurcation. For the sake of greater acceptability by the citizens,²⁹⁴ it is necessary to find a balance between AI systems dedicated to control, such as those designed to prosecute fraud, and those designed to facilitate or improve the service to citizens.

It is evident, as will be said in the third part of this work, that multiple applications of these systems that can be considered favourable or beneficial for the recipients of public action, from the provision of information via *chatbots*, digital *nudges* that facilitate the location and submission of applications, to the agility of the procedure, etc. Without forgetting proactivity, for example, informing hypothetical interested recipients.

It is also true that the use of AI systems for the prosecution of fraud can be understood as being in the general interest, as endorsed by the French *Conseil Constitutionnel* in its decision of 27 December 2019, no. 2019-796, and even expressly stated in some regulations;²⁹⁵ without forgetting the principle of equality before

reasons for requesting access to public information, despite the fact that in some cases, the CTBG understands that it should be limited to those cases whose purpose is to obtain information for the purposes of accountability to which public authorities are subject; However, this is not strictly what the Law says, given that it exempts from having to justify the request, nor what the Spanish *Tribunal Supremo* has interpreted (Judgment of the TS 3870/2020, 12 November 2020, appeal 5239/2019), so this interpretation should not be accepted.

²⁹³ Agenzia per l'Italia Digitale, *Libro Bianco sull'Intelligenza Artificiale al servizio del cittadino*, cit.

²⁹⁴ Social acceptability is the first objective expressly referred to in Quebec's *Stratégie d'intégration de l'intelligence artificiel dans l'administration public 2021-2026*.

²⁹⁵ See, the Third Additional Provision of Valencian Law 22/2018, of 6

taxes;²⁹⁶ however, this use must always be proportionate and respectful of rights and guarantees, including, especially, those of a fundamental nature, such as data protection, privacy, etc.

Algorithmic tax control is fundamentally based on *data mining*,²⁹⁷ which consists of extracting useful information from databases, often very large, to design a hidden or non-obvious model. *Data mining* looks for correlations between different factors to reveal models, in this case, profiles or *patterns* typical of fraudsters. As Caroline Lequesne-Roth points out, “the detection of fraudsters in this context does not rely on suspicion based on assumptions, but on statistical probabilities “self-generated” by the system”.²⁹⁸

Moreover, just as decision-making, in general, has evolved, algorithms are changing the reasoning underpinning fiscal control. A mutation of this control can now be observed, as it is based on predictive analytics, which raises a number of questions,²⁹⁹ some of which will be referred to below.

November. Also, the report of the *Oficina Antifraude* of Catalonia, in relation to the automated alert systems for public procurement of September 2022.

²⁹⁶ As explained by L. Cluzel-Métayer and C. Prébissy-Schnall, *La mutation du contrôle fiscal par le numérique : L'exemple français*, 2023 (in press), the loss of tax revenue, due to fraud, provokes taxpayers' indignation and destabilizes the foundations of the rule of law: the principle of the right of citizens to consent to taxation has its origins in the heart of the French Revolution and implies respect for the principle of equality before taxes. It is therefore understandable that the fight against tax evasion (be it the fight against tax fraud, the fight against tax avoidance and, more recently, the fight against tax optimization, as stated by the French *Conseil Constitutionnel*, in its Decision No 2020-842 QPC of 28 May 2020) is an objective with constitutional value that is essential to maintain or regain taxpayers' confidence in the tax system.

²⁹⁷ In this regard, see, among others, C. Vandamme, *Le repérage de la fraude fiscale grâce au data mining*, in *Gestion & Finances publiques*, no. 11-12, 2014, 42-45.

²⁹⁸ C. Lequesne-Roth, *La lutte contre la fraude à l'ère digitale*, in *Revue de droit fiscal*, no. 5, 4 February 2021, 2.

²⁹⁹ As shown by L. Cluzel-Métayer and C. Prébissy-Schnall, *La mutation du contrôle fiscal par le numérique : L'exemple français*, cit.

2. *Effectiveness versus guarantees: a synthesis*

To conclude this second part, it is essential to refer to the underlying idea of this work, which is highlighted in the title itself, the balance between effectiveness and guarantees.³⁰⁰

Reference has already been made to several issues related to these two aspects. Thus, some of the main benefits that the use of AI systems can bring to the life of public administrations and their relations with citizens, and therefore to effectiveness and efficiency, and thus to good administration, have already been outlined.³⁰¹ It has also been noted that its use is not optimal for all types of material activity, much less formalized. Its implementation must be analysed and strategically planned, as it entails a wide range of consequences that should be weighed up before opting for AI and making an assessment of what it will entail in the long term.³⁰² Likewise, some of the risks associated with the use of such tools have been mentioned.³⁰³

³⁰⁰ E. M. Menéndez Sebastián, *L'intelligenza artificiale nel settore pubblico: sulla perenne ricerca di un equilibrio tra efficienza e garanzie*, CERIDAP, no. 2, 2023.

³⁰¹ The connection between digitisation and good administration has also been highlighted by D.-U. Galetta, *Digitalizzazione e diritto ad una buona amministrazione*, in CERIDAP, fasc. 3/2021, 197-205.

³⁰² Along these lines, the Italian Strategy rightly points out that public administrations and dedicated project teams facing the question of the role that AI can play in the management of their activities must start from one point of departure: AI is not always a panacea and is not suitable for every kind of challenge. (...) Moreover, administrations cannot ignore time. Therefore, it is necessary to investigate beforehand which internal processes or which services to citizens can be facilitated using AI-based technologies and, at that point, to build expectations and impact in relation to the support that can derive from them in terms of efficiency and/or equity Agenzia per l'Italia Digitale, *Libro Bianco sull'Intelligenza Artificiale al servizio del cittadino*, cit., 75.

³⁰³ Regarding legal and ethical risks, see also A. Cerrillo i Martínez, *El derecho para una inteligencia artificial centrada en el ser humano y al servicio de las instituciones*, in *IDP: revista de Internet, derecho y política*, no. 30, 2020; or L. Contino Hueso, *Riesgos e*

Therefore, it is appropriate now to present, by way of synthesis, the essential keys to the tension between effectiveness -already largely discussed- and guarantees in the implementation of IA in public action, bearing in mind that the analysis of each and every one of the guarantees exceeds the purpose of this study, so I will limit myself to offering a general reflection on them,³⁰⁴ focusing on some of the most prominent, such as motivation, transparency or effective judicial protection, but without forgetting others, such as non-contractual or patrimonial liability.

Well, as mentioned, although in Spanish system there is no exhaustive regulation of the deployment of AI in the sphere of the Administration,³⁰⁵ this does not imply that there are no guarantees

impactos del big data, la inteligencia artificial y la robótica. Enfoques, modelos y principios de la respuesta del Derecho, in *Revista General de Derecho Administrativo*, no. 50, 2019, among others.

³⁰⁴ When fundamental rights are at stake, certain specific guarantees must also be taken into account, to which reference has already been made, for example, by M. A. Presno Linera, *Teoría general de los derechos fundamentales e inteligencia artificial: una aproximación*, in *Revista Jurídica de Asturias*, no. 45, 2022, 55-83; by the same author also *Derechos fundamentales e inteligencia artificial*, Marcial Pons, Madrid, 2022, such as independent authorities or those specific to the judicial sphere. Mention should also be made of the idea of P. López López and T. Samek, *Inclusión digital: un nuevo derecho humano*, in *Educación y Biblioteca*, no. 172, 2009, 114-118, regarding digital inclusion from a human rights perspective.

³⁰⁵ Although, as the doctrine has indicated, such as L. Cotino Hueso, *Ética en el diseño para el desarrollo de una inteligencia artificial, robótica y big data confiables y su utilidad desde el derecho*, in *Revista Catalana de Dret Públic*, no. 58, 29-48, it is time to move on from the muses to the theatre and reflect on the ethical and legal principles that clearly need to be applied in this field in an adequate regulation of artificial intelligence. This need for regulation is also pointed out by C. Napoli, *Algoritmi, intelligenza artificiale e formazione della volontà pubblica: la decisione amministrativa e quella giudiziaria*, in *Rivista AIC*, no. 3, 2020, 353. This need is also highlighted in the *Conclusions of the I Seminario Internacional sobre Derecho Administrativo e Inteligencia artificial*, Universidad de Castilla-La Mancha, 1 April 2019. See also M. C. Campos Acuña, *Inteligencia Artificial e Innovación en la Administración Pública: (in)necesarias regulaciones para la garantía del servicio público*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, no. 23, 2019, 74-91. M. Sarasibar Iriarte, *La Cuarta*

and rights that must inevitably be respected³⁰⁶ but, on the contrary, the use of AI must respect and be governed by administrative law, ethical principles³⁰⁷ and human rights.³⁰⁸ This idea has precisely led the Danish system to the so-called *Administrative Law by Design*.³⁰⁹

Firstly, when it comes to formalized activity, for example, the award of a contract, an aid, subsidy or subvention, it is clear that each and every one of the procedural rights that must be respected and guaranteed in general must also be complied with when IA is used in the specific procedure³¹⁰. These rights have attained

Revolución Industrial: el Derecho Administrativo ante la inteligencia artificial, in *Revista Vasca de Administración Pública*, no. 115, 2019, 377-401. H. Jacquemin and A. de Streeel, *L'intelligence artificielle et le droit*, Larcier, Brussels, 2017.

³⁰⁶ When fundamental rights are at stake, M. A. Presno Linares, *Teoría general de los derechos fundamentales e inteligencia artificial: una aproximación*, in *Revista Jurídica de Asturias*, cit.

³⁰⁷ Indeed, as stated by C. E. Jiménez-Gómez and J. Cano Carrillo, *Essential elements and ethical principles for trustworthy artificial intelligence adoption in courts*, in *Trends in State Courts*, 2022, 120, the importance and challenges of these technologies, including legal and ethical ones, require special attention and urgent steps. See also J. Nay and J. Daily, *Aligning Artificial Intelligence with Humans through Public Policy*, May 4, 2022, who propose that given that AI increasingly permeates our lives, it is critical that we systematically align AI objectives with the goals and values of humans.

³⁰⁸ D. Leslie, C. Burr, M. Aitken, J. Cowls, M. Katell and M. Briggs, *Artificial intelligence, human rights, democracy, and the rule of law: a primer*, The Council of Europe, 2021.

³⁰⁹ That, as H. M. Motzfeldt, *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, cit., explains, any technology used by the public sector must be designed and used in such a way that it is supported by compliance with administrative law and standards of good administration, which requires a prior assessment of the impact of good administration, i.e., first of all, a mapping of the standards that need to be met must be made.

³¹⁰ For, as D.-U. Galetta, *Algoritmi, procedimento amministrativo e garanzie: brevi riflessioni, anche alla luce degli ultimi arresti giurisprudenziali in materia*, in *Rivista Italiana di Diritto Pubblico Comunitario*, cit., echoing the Italian *Consiglio di Stato*, it will be necessary to adapt the usual rules and institutions to the new reality.

fundamental status in the European Union in Article 41 of the Charter of Fundamental Rights.

Among these, and for the obvious reasons already explained, the issue of motivation is of great relevance here. It should also be recalled that, precisely within good administration, a relevant role is given to the motivation of decisions,³¹¹ as well as due diligence in terms of taking into consideration the facts;³¹² since only this adequate weighing of all the circumstances and elements present in each case will serve to take the most appropriate decision.³¹³ In short, this is the obligation of *due care* or *due diligence referred to* by the CJEU.³¹⁴

³¹¹ Among others, it is worth mentioning the judgments of the Spanish *Tribunal Supremo*, Contentious-Administrative Chamber, of 2 June 2004, appeal in cassation no. 202/2002; of 10 December 2003, appeal in cassation no. 3905/2000; of 22 February 2005, appeal in cassation no. 3055/2001; of 29 March 2004, appeal in cassation no. 8697/1999; of 30 November 2004, appeal in cassation no. 3456/2002; of 13 May 2005, appeal in cassation no. 2414/2002; of 13 December 2005, appeal no. 120/2004; of 25 July 2006, appeal in cassation no. 466/2003; of 26 September 2006, appeal in cassation no. 8712/2003; of 4 November 2009, ECI:ES:TS:2009:7575; of 15 October 2010, ECLI:ES:TS:2010:5190; of 30 January 2012, ECI:ES:TS:2012:293; of 14 March 2014, ECI:ES:TS:2014:842; of 2 October 2014, appeal in cassation no. 2229/2012; of 19 October 2015, ECI:ES:TS:2015:4326; or the judgment of the *Tribunal Superior de Justicia* of Catalonia no. 959/2017, of 29 December, ECI:ES:TSJCAT:2017:12396, etc.

³¹² In this regard, see, inter alia, the judgments of the Spanish *Tribunal Supremo* of 5 October 2012, Contentious-Administrative Chamber, ECLI:ES:TS:2012:7318; of 13 March 2013, Contentious-Administrative Chamber, ECLI:ES:TS:2013:1364; of 14 May 2013, Contentious-Administrative Chamber, ECLI:ES:TS:2013:2340, etc.

³¹³ In other words, the existing legal obligation to take into consideration with the greatest possible diligence and care the facts, interests, rights and legal norms involved in the making of any discretionary administrative decision, of which J. Ponce Solé, *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración*, speaks, J. Ponce Solé, *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración. Análisis teórico y jurisprudencial del rescate de concesiones*, cit., 94.

³¹⁴ See, for example, the judgment of the CJEU (Grand Chamber) of 4 April

This links easily with the use of ICT means to carry out a proper investigation;³¹⁵ or with the *inquisitorial principle* of the Danish system, i.e., in the sense that it must be ensured that decisions addressed to citizens are based on relevant, necessary and correct information.³¹⁶

It should also be recalled that it is argued here that, albeit in different ways, motivation must exist both in the exercise of discretionary and regulated powers, as in the example of the application of a perfectly objectified scale. This implies, therefore, that even in the case of using AI in the taking of decisions of a regulated nature, it is necessary to be able to know the logic of operation of the algorithm or AI system used, as well as the possibility of verifying that it adequately responds to the provisions of the rule, specifications or call for tenders.

Let me explain more concretely. The choice inherent in discretionary decisions or decisions with a certain margin of appreciation and the motivation behind them fits in with the idea of good administration discussed here and set out in the first

2017, Case C-337/15 P, ECLI:EU:C:2017:256, which refers precisely to the European Ombudsman's own action, and where it speaks of the principle of diligence, understood as the obligation to examine thoroughly and impartially all the relevant elements of the case in question, as well as that the obligation of diligence, which is inherent in the principle of good administration and applies generally to the action of the Union administration in its relations with the public, implies that it must act with thoroughness and prudence. Or the judgment of the CJEU (Sixth Chamber) of 22 November 2017, Case C-691/15 P, ECLI:EU:C:2017:882, paragraph 47 of which states that, by virtue of its duty of diligence, it is required to examine in detail and impartially other elements which, although not expressly provided for in those provisions, are nevertheless relevant.

³¹⁵ D.-U. Galetta, *Digital Transition of Public Administration in Italy and the Right to a Good Administration: Problems and Prospects also in the Perspective of the Implementation of the National Recovery and Resilience Plan*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1.

³¹⁶ H. M. Motzfeldt, *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, cit.

chapter, that of the best decision. Hence also the importance of impact studies,³¹⁷ where the use of certain AI systems, such as simulators, which offer the possible consequences of decisions can play in favour. In such cases, these tools, such as the so-called “digital twins”, far from being detrimental to motivation, serve the same purpose.

On the other hand, another essential point to be made is that, in my opinion, it is necessary to start from the great variety of types of decisions that the Administration has to adopt in its daily work, some of them apparently of great simplicity and others of overwhelming complexity. Well, I believe that, in principle, the notion of good administration should permeate all of them; it should be a constant guide for the Administration in its decision-making. It is true that the focus has been placed on discretionary decisions, for obvious reasons, and it is in fact in these that perhaps the notion of good administration should be deployed more intensively and with greater impact, but neither should we lose sight of other types of decisions and the work of application that the Administration carries out in these decisions.

It is true that there are decisions, in my opinion increasingly fewer, in which, in principle, the administration is limited to making a

³¹⁷ In relation to the importance of impact reports and studies in determining a good decision, see also the judgments of the Spanish *Tribunal Supremo*, Contentious-Administrative Chamber, of 18 June 2012, ECI:ES:TS:2012:4591; Judgment no. 2571/2016, of 12 December, appeal no. 902/2014; Judgment no. 2586/2016, of 13 December, appeal no. 873/2014; or with regard to regulatory quality in general, for example, the judgments of the Spanish *Tribunal Supremo*, Contentious-Administrative Chamber, of 18 March 2009, appeal no. 4708/2006, appeal no. 4708/2006, appeal no. 4708/2006, appeal no. 4708/2006, appeal no. 4708/2006, 873/2014; or with regard to regulatory quality in general, for example, the judgments of the Spanish *Tribunal Supremo*, Administrative Chamber, of 24 March 2009, appeal in cassation no. 4708/2006; of 15 July 2010, ECI:ES:TS:2010:4057; of 23 March 2015, ECI:ES:TS:2015:1139; no. 2563/2016, of 5 December, appeal in cassation no. 378/2013; etc.

syllogism -and precisely where AI systems are most prevalent- that is, the rule tells it in a concrete way what it must decide in the face of specific facts, the so-called regulated decisions. However, even in these decisions, the circumstances of the case must also be considered within the scope of application of the rule, that is to say, an assessment and qualification of the facts must be made, which, in my opinion, does not escape the *due cure* or *due diligence* mentioned by the CJEU and which is connected with good administration.³¹⁸ In other words, it must also be required in these cases to exercise due diligence in the assessment and evaluation of the facts, as well as to take into account the rules applicable to the case.

Finally, in my opinion, the existing legal obligation to take into consideration as diligently and carefully as possible the facts, interests, rights and legal rules involved in the taking of any discretionary administrative decision,³¹⁹ also has some application, at least in terms of the qualification of the facts -for the purpose of fitting them into the corresponding rule-, also in other types of decisions or, rather, in practically all of them, although, of course, not with the same intensity.³²⁰ This leads me to understand that even in the case of using AI in the taking of decisions of a regulated nature, this does not prevent or avoid the need to be able to know the logic of operation of the algorithm or AI system used, as well as to be able to check that it responds adequately to what is established in the rule.

³¹⁸ For example, see judgment of the General Court (Fourth Chamber) of 29 April 2015, Case T-217/11, Claire Staelen v. European Union Ombudsman, ECLI:EU:T:2015:238, in particular paragraphs 81-83.

³¹⁹ J. Ponce Solé, *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración. Theoretical and jurisprudential analysis of the rescue of concessions*, cit., 94.

³²⁰ As indicated by M. Taruffo, *La prueba de los hechos*, Trotta, Madrid, 2011, the problems with the notion of evidence and the justification of legal decisions on facts are of paramount theoretical and practical importance.

Moreover, with regard to motivation, the cornerstone of good administration, it should be borne in mind that the reference in Article 41 of the Charter of Fundamental Rights of the European Union to the necessary motivation of decisions is of a general nature since it refers to the obligation incumbent on the Administration to give reasons for its decisions,³²¹ without qualifying or distinguishing between them, in line with what is also established in Article 296 of the Fundamental Treaty of the European Union (FTEU), which states that legal acts must state the reasons for them.³²² Therefore, the conclusion or consequence is that both regulated and discretionary acts must be motivated, which is an important difference from what the Spanish legal system determines, in particular, in art. 35 of Law 39/2015.

Ultimately, in this respect, it should be borne in mind that the use of AI systems cannot bypass the necessary motivation of the decision, particularly when it is individual, but also that certain tools can help to motivate better.

Motivation, in turn, connects with two other elements, such as transparency and explainability. I have also already mentioned that a double approach is possible, i.e., transparency linked more to the motivation of the individual decision or transparency connected to accountability,³²³ especially when it comes to collective decisions or also to knowing how public service works.

³²¹ Thus, this obligation to state reasons is the first aspect highlighted in the work *Principles of Good Administration In the Member States of the European Union*, Statskontoret, 2005.

³²² Thus, as U. E. Zellenberg, *Das Recht auf eine gute Verwaltung*, in C. Grabenwarter, W. Pöcherstorfer and C. Rosenmayr-Klemenz (eds.) *Die Grundrechte des Wirtschaftslebens nach dem Vertrag von Lissabon*, Jan Sramek Verlag, KG, Wien, 2012, 96, states, Art. 41 is more than a mere reinforcement of the guarantees developed in judicial law, it also summarizes the rights that primary law already recognized, such as the motivation of decisions, the right to compensation and the linguistic guarantee.

³²³ See, for example, F. Gualdi and A. Cordella, *Artificial Intelligence and Decision-*

Indeed, it is not enough to be able to know the system, source code or algorithm used; but it must also be understood.³²⁴ And this aspect also connects with another that, in my opinion, is crucial, namely equality and the possibilities of creating differences based on the difficulty of understanding how a decision has been made, as this may even have repercussions on access to effective judicial protection. Not forgetting either that it is not good administration to force those affected to go to court in order to have access to and understand how a decision that has harmed them has been taken.

Transparency and explainability are two issues to which the doctrine has been extensively devoted, so it is worth focusing now only on a specific but necessary issue. Thus, firstly, it is worth recalling that in our system there is a double path or regulation that influences this issue: that of the administrative procedure and legal regime and that of transparency regulated, mainly in the Spanish LTAIPBG.

According to it, in my opinion, this transparency is mandatory with respect to the use of IA systems by the Administrations, in line with the most recent provisions to which I will refer below.

However, as I have already pointed out, this does not imply that when faced with an individual decision, the only reference is art. 35 of Spanish Law 39/2015 or 41 of Law 40/2015, but once the procedure is concluded, the interested parties may also exercise the right of access to the LTAIPBG. In other systems, such as France, the issue is regulated by a single regulation, the CRPA, to which I have already referred.

As has just been stated, special mention should be made of the provision contained in art. 23 of Spanish Law 15/2022, of 12 July, *Integral para la igualdad de trato y la no discriminación*.³²⁵ This

Making: the question of Accountability, in *Emerging Topics in Digital Government*, 5 January 2021, 2297-2306.

³²⁴ There are even solutions in this respect other than opening the source code, as explained by R. Brauneis and E. P. Goodman, *Algorithmic Transparency for the Smart City*, in *Yale Journal of Law & Technology*, vol. 20, 2018, 103-176.

³²⁵ Or more specifically at the regional level, art. 16.1, l) of Law 1/2022, of 13

establishes, albeit somewhat generically, that within the framework of the *Estrategia Nacional de Inteligencia Artificial*,³²⁶ the *Carta de Derechos Digitales*,³²⁷ and European initiatives on AI, public administrations shall encourage the implementation of mechanisms so that the algorithms involved in decision-making used in public administrations take into account criteria for minimizing bias,³²⁸ transparency and accountability,³²⁹ provided that this is technically feasible. These mechanisms will include their design and training data and will address their potential discriminatory impact. To this end, impact evaluations to determine potential discriminatory bias will be promoted.³³⁰

April, on *Transparencia y Buen Gobierno* of the Valencian Community, which within active publicity and, specifically, legal information, includes within the information subject to the obligation of active publicity, the list of algorithmic or artificial intelligence systems that have an impact on administrative procedures or the provision of public services with a comprehensible description of their design and operation, the level of risk involved and the contact point to which they can be addressed in each case, in accordance with the principles of transparency and explainability.

³²⁶ November 2020 and whose strategic axis 5 is dedicated to the use of artificial intelligence in public administrations.

³²⁷ It should be noted that this Charter is not binding, however, it is relevant that it is mentioned in Law 15/2022. In particular, Article XVIII provides for the rights of citizens in relation to artificial intelligence in the framework of administrative action, where it addresses, among other issues, for example, motivation, transparency, the adoption of automated decisions, in particular in the case of discretionary powers, etc.

³²⁸ In this regard see the interesting work of C. R. Sunstein, *Algorithms, Correcting Biases*, in *An International Quarterly*, vol. 86, no. 2, Summer 2019, 499-511.

³²⁹ As rightly stated by J. Maxwell and J. Tomlinson, *Experiments in automating immigrations systems*, Bristol University Press, Bristol, 2022, VII, “digital technology holds out considerable promise as a tool for speedy and cost-effective decision making in many areas in the public sector, yet it holds out challenges as well. In modern democracies, we expect public sector decision making to be accountable and fair”.

³³⁰ Thus, as E. Copeland, *10 principles for public sector use of algorithmic decision making. What should be in a code of standards for public sector use of algorithmic decision-*

It further adds that public administrations, within the framework of their competences in the field of algorithms involved in decision-making processes, will prioritize transparency in the design³³¹ and implementation and the ability to interpret the decisions taken by them.

And that both public administrations and companies will promote the use of ethical, reliable AI³³² and respectful of fundamental rights,³³³ especially following the recommendations of the

making?, in *Government Innovation*, 28 June 2018, public sector organizations should publish details describing the data on which an algorithm was (or is continuously) trained and the assumptions used in its creation, together with a risk assessment to mitigate potential biases. That is, public sector organizations must demonstrate that they have considered the unavoidable biases in the data on which an algorithm was (or is continuously) trained and the assumptions used in its model. Once this has been done, they should describe the steps they have taken to mitigate the negative consequences that could follow, to demonstrate their understanding of the potential impact of the algorithm. The length and detail of the risk assessment should be linked to the likelihood and potential severity of producing a negative outcome for an individual.

³³¹ Precisely, it has been pointed out that usually, the design of algorithms is not thinking about the need to be able to explain them, see R. Binns et al., *It's Reducing a Human Being to a Percentage: Perceptions of Justice in Algorithmic Decisions*, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 2018, 10.

³³² This implies, as pointed out by the Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit., 9, that an administrative doctrine of AI be defined based on a set of fundamental principles: legal, organisational, technical, pedagogical and governance measures; involving all stakeholders.

³³³ For examples of AI use and respect for fundamental rights, see, inter alia, FRA, *Getting the future right. Artificial Intelligence and fundamental rights*, Publications Office of the European Union, Luxembourg, 2020; or A. Mantelero, *Beyond Data. Human rights, Ethical and Social Impact Assessment in AI*, Springer, Berlin, 2022. As the Council of Europe has highlighted, AI can affect various fundamental rights, Council of Europe, *Algorithms and Human Rights. Study on the Human Rights Dimensions of Automated Data Processing Techniques (in particular Algorithms) and Possible Regulatory Implications*, Doc. DGI(2017)12.

European Union in this regard. And it even refers to the possibility of creating a seal of quality for algorithms.

Very simply, in my opinion, there should be no “black boxes”³³⁴ that prevent us from knowing how a decision has been made, especially when we are talking about unfavourable or favourable acts that may affect third parties, involve unequal treatment or violate the general interest, nor should they force those affected to go to court, and much less so that there is no possibility of a thorough control of the decision in the courts.³³⁵ This is a limit to the use of complex AI that cannot be circumvented, which should not lead us to understand that there is no room for any deployment of this type of system in the Administration, as not all of them are inexplicable. This characteristic is not inherent to all types of AI. It is a great scientific challenge to be able to explain the functioning of AI systems known as machine learning and, especially, deep learning systems since there is a tension between their greater efficiency and their explainability, which is not only a guarantee but also a prerequisite for social acceptability.³³⁶

Explainability,³³⁷ i.e., the requirement of explainability, in a broad sense, requires that the person responsible for the system is able to understand the operations that the machine has carried out to

³³⁴ Understanding what happens in algorithmic black boxes is not so simple, so H. Guillaud, *Vers des algorithmes exemplaires ?*, in *Internet Actu*, 2018, precisely explains some projects that are being carried out to make these black boxes more understandable.

³³⁵ On judicial review of algorithm-supported decisions, see, for example, L. Cluzel-Métayer, *The Judicial Review of the Automated Administrative Act*, in *ERDAL*, vol. 1, Issue 1-2, 2020, 101-103.

³³⁶ C. Villani C., M. Schoenauer, Y. Bonnet, B. Charly, A.-C. Cornut, F. Levin and B. Rondepierre, *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne*, cit., 141-142.

³³⁷ See, for example, L. Edwards and M. Veale, *Enslaving the Algorithm: From a “Right to an Explanation” to a “Right to Better Decisions”?*, in *IEEE Security & Privacy*, vol. 16, Issue 3, 2018, 46-54.

produce its results, hence what is called *interpretability*,³³⁸ and also to present in a language understandable to any person (or at least to the person in question) the key elements of the “reasoning” -which would be explainability in the strict sense-,³³⁹ or intelligibility.³⁴⁰

Moreover, this requirement can be conceived at two levels: on the one hand, “local” explainability, which presupposes being able to explain the result produced for a particular case, which implies, at least, identifying the key variables that determined the production of the result by the system; and, on the other hand, “global” explainability, which is more ambitious and aims to make the model interpretable for all the data, and not for a specific person or situation.³⁴¹

Explainability in the case of machine learning-based models, although it has undergone significant advances, is still a long way off, which is one of the major challenges for the use of AI in the public sector,³⁴² given the need to ensure motivation and accountability. Furthermore, it has also been argued that accountability of algorithms is ultimately about assigning responsibility for how an algorithm is created and its impact on society.³⁴³

³³⁸ How did the model achieve this result, using what data, by what calculations?

³³⁹ Why did this outcome occur and not another?

³⁴⁰ Intelligibility of the procedure and intelligibility of the results, as indicated by M. Pégny and I. Ibnouhsei, *Quelle transparence pour les algorithmes d'apprentissage machine ?*, 2018.

³⁴¹ And that goes as far as the “formal proof” of *machine learning-based* systems, i.e., the formalization of all the rules of a trained model, as if it were part of a “rule-based” artificial intelligence (such as an expert system).

³⁴² For some of the main legal challenges that need to be addressed, see A. Cerrillo i Martínez and M. Peguera Poch (coords.), *Retos jurídicos de la inteligencia artificial*, Thomson Reuters, Cizur Menor, 2020.

³⁴³ R. Caplan et al., *Algorithmic accountability: a primer*, in *Data & Society*, 2018, 10.

Another related issue is that of transparency, to which reference has also been made to a large extent, the right of access and the possible limits arising from the concurrence of other legally protected interests, such as professional secrets or even public security. In any case, it is worth remembering that intellectual property is not in itself a limit, but that in such cases, it is necessary to give the third parties concerned the opportunity to make allegations.³⁴⁴ These problems are increased when contractors are used to design these systems, hence also the need to achieve greater autonomy on the part of the administrations.

However, as in everything else, there is a need for nuances as pure and perfect explainability cannot, however, be a *sine qua non* for the deployment of public AI systems, just as the functioning of the human brain in a given situation is not fully known and understood, and citizens have to live with this.³⁴⁵ In this respect, expert pre-audits could go some way toward meeting this need.

In this respect, different cases must also be taken into account, starting with whether the activity is material or formalized, it is clear that the degree of knowledge that must be given in the case of an unfavourable individual decision, in which effective judicial protection itself is at stake, will not be the same as in the case of material activity in the provision of a service in which, although total opacity is not possible due to the imperative of

³⁴⁴ With regard to intellectual or industrial property rights, which are not always adequately differentiated, it should be borne in mind that in the case of authorship by third parties who hold copyright, in application of the provisions of art. 19.3 of the Spanish LTAIPBG, they must be given notice of the request so that they can make allegations and, if this is not done, the Spanish CTBG orders the procedure to be taken back (RT0321/2017, of 26 March 2018, of the CTBG).

³⁴⁵ Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit.; and I. Martín Delgado, *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, in *European Review of Digital Administration & Law*, cit.

accountability,³⁴⁶⁻³⁴⁷ a weighted assessment must be made, taking into account, among other issues, the contribution to the improvement of the service, i.e. the principle of performance.³⁴⁸

In this sense, Article 13 of the draft European regulation limits itself to requiring that the operation of high-risk AI systems be “*sufficiently transparent to enable users to interpret the results of the system and use it appropriately*”. It is, therefore, a requirement of interpretability, limited to the user, and not of explainability for the benefit of the persons for whom this user (such as the Administration) implements the system.

In short, and as in other systems such as the French one, the principle of transparency by default should govern,³⁴⁹ limited only in cases justified by the concurrence of other legally protectable rights or interests, for example, certain limits of the Spanish LTAIPBG, and after prior and appropriate weighing.

It is also worth noting the triple dimension that some authors have referred to³⁵⁰ within transparency, namely

³⁴⁶ This concern has led to a resurgence of research on *explainable AI*, which refers to solutions based on algorithmic methods and techniques that can be understood by human experts, see M. Janssen, M. Hartog, R. Matheus, A. Yi Ding, and G. Kuk, *Will Algorithms Blind People? The Effect of Explainable AI and Decision-Makers’ Experience on AI-supported Decision-Making in Government*, in *Social Science Computer Review*, vol. 40, Issue 2, 2022, 478-493.

³⁴⁷ J. Castellanos Claramunt, *Democracia, Administración pública e inteligencia artificial desde una perspectiva política y jurídica*, in *Revista Catalana de Dret Públic*, no. 60, 2020, 137-147.

³⁴⁸ Although in general the same degree of explicability is not required in the material activity of providing services, some relevant issues cannot be forgotten, such as, for example, the need to know whether or not the service functioned correctly in view of a hypothetical liability for damages. The issue of standards is relevant here.

³⁴⁹ J. Valero Torrijos, *Las garantías jurídicas de la inteligencia artificial en la actividad administrativa desde la perspectiva de la buena administración*, in *Revista catalana de dret públic*, no. 58, 2019, 82-96.

³⁵⁰ I. Martín Delgado, *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, cit.

traceability,³⁵¹ explainability³⁵² and auditability.³⁵³ It is also necessary to point out, in relation to what was said in the first part of this paper, the importance of transparency in design itself, as well as participation³⁵⁴ and/or collaboration in design,³⁵⁵ for example, through collective intelligence³⁵⁶ or the co-creation of services,³⁵⁷ as this will result in acceptability.

Precisely, another relevant issue in the subject of guarantees is that of the aforementioned audits.³⁵⁸ Specially linked to the need to guarantee equality and non-discriminatory treatment. In this respect, it should be borne in mind that such discrimination, for example,

³⁵¹ Ability to carry out documented data tracking, process and deployment development of an artificial intelligence system.

³⁵² Ability to explain the technical processes of an artificial intelligence system.

³⁵³ The ability of an artificial intelligence system to undergo evaluation of its algorithms, data and design processes.

³⁵⁴ M. Veale et al., *Fairness and Accountability Design Needs for Algorithmic Support in High-Stakes Public Sector Decision-Making*, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 2018.

³⁵⁵ G. Pinotti, *Amministrazione digitale algoritmica e garanzie procedurali*, in *Labour & Law Issues*, vol. 7, Issue 1, 2021, I.88, and Conseil D'État, *Puissance publique et plateformes numériques : accompagner l' "ubérisation"*, cit.

³⁵⁶ One example is *Open Social Innovation (OSI)*, that involves the collaboration of multiple stakeholders to generate ideas and develop and scale solutions to make progress on societal challenges. In this regard see T. Gegenhuber, J. Mair, R. Lührsén and L. Thäter, *Orchestrating distributed data governance in open social innovation*, in *Information and Organization*, vol. 33, Issue 1, 2023, 100453. On what collective intelligence is, see also J. Flack, P. Ipeirotis, T. W. Malone, G. Mulgan and S. E. Page, *Editorial*, in *Collective Intelligence*, August-September 2022, 1; and D. Centola, *The network science of collective intelligence*, in *Trends in Cognitive Sciences*, November 2022, vol. 26, no. 11, 923-941.

³⁵⁷ In this regard, among others, J. I. Criado and J. R. Gil-García, *Creating public value through smart technologies and strategies. From digital services to artificial intelligence and beyond*, in *International Journal of Public Sector Management*, vol. 32, no. 5, 2019, 438-450.

³⁵⁸ Since such prior checks are essential, as F. Merli, *Automated Decision-Making Systems in Austrian Administrative Law*, in *CERIDAP*, 30 January 2023, rightly points out.

algorithmic, may stem from faulty design, but also from the use of data lacking the necessary quality and cleanliness, especially when it comes to old data that may contain biases,³⁵⁹ to which I have already referred.

In this regard, it is worth bearing in mind art. 23 of Spanish Law 15/2022, of 12 July, on *Integral para la igualdad de trato y la no discriminación*, to which reference has already been made. Although it does not represent a desired specification, it is at least a first step in the recognition of the need for the use of AI systems in public administrations to respond to transparency,³⁶⁰ accountability and non-discrimination.³⁶¹

The undoubted connection between good administration and the use of IA systems should again be mentioned here. In this respect, the

³⁵⁹ On gender discrimination in this field, see, for example, the case study by E. Saka, *Big Data and Gender-Biased Algorithms*, in K. Ross (ed.), *The International Encyclopedia of Gender, Media, and Communication*, John Wiley & Sons, New York, 2020.

³⁶⁰ P. Falletta, *Lo "Stato digitale". La trasparenza amministrativa in rete: le nuove piattaforme digitali per la diffusione di contenuti informativi*, in *Rivista trimestrale di diritto pubblico*, no. 2, 2021, 559-568.

³⁶¹ Thus, as stated by M. Hickok, *Public procurement of artificial intelligence systems: new risks and future proofing*, in *AI & SOCIETY*, 2 October 2022, "public entities around the world are increasingly deploying artificial intelligence (AI) and algorithmic decision-making systems to provide public services or to use their enforcement powers. The rationale for the public sector to use these systems is similar to private sector: increase efficiency and speed of transactions and lower the costs. However, public entities are first and foremost established to meet the needs of the members of society and protect the safety, fundamental rights, and wellbeing of those they serve. Currently AI systems are deployed by the public sector at various administrative levels without robust due diligence, monitoring, or transparency. This paper critically maps out the challenges in procurement of AI systems by public entities and the long-term implications necessitating AI-specific procurement guidelines and processes. This dual-pronged exploration includes the new complexities and risks introduced by AI systems, and the institutional capabilities impacting the decision-making process. AI-specific public procurement guidelines are urgently needed to protect fundamental rights and due process".

good administration impact assessment of AI systems imposed in Denmark –mainly as a result of the decisions of the Danish Ombudsman³⁶²– stands out, whose name could not be more expressive in terms of its connection with good administration, and which requires exhaustive tests and prior implementation measures, without forgetting permanent monitoring programs in order to gather information on errors, failures or deficiencies that subsequently arise during the use of this technology. Or in the same direction the European Law Institute’s report *Model Rules on Impact Assessment of Algorithmic Decision-Making Systems Used by Public Administration*.

It is essential to evaluate before, during and after the implementation of these systems since knowing the impact they have on decisions is one of the key points to be taken into account.³⁶³

While it is imperative that such audits are adequate and reliable, if they are poorly defined or inaccurate, there is a significant risk that they will mask problems in algorithmic systems and create a permission structure around poorly designed or implemented AI, which is at best meaningless and, at worst, even excuses harm that the audits are intended to mitigate. Inadequate or unclear audits provide a false assurance of compliance with rules and laws, so-called “audit laundering”, which can enable problematic or illegal practices.³⁶⁴

³⁶² H. M. Motzdelt, *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, cit.

³⁶³ As E. Copeland, *10 principles for public sector use of algorithmic decision making. What should be in a code of standards for public sector use of algorithmic decision making?*, cit.

³⁶⁴ As E. P. Goodman and J. Tréhu, *AI Audit-Washing and Accountability*, GMF, Policy Paper, Washington, November 2022, who propose the following questions: *Who?*, *What?*, *Why?* And *How?* Key information about the person or organization expected to conduct the audit must be clear, including their qualifications and conditions of independence (if any), and their access to data and audit trails. If the audit is an internal one conducted by the covered entity itself, it should be clear how such an audit fits into a larger accountability

On the other hand, among other guarantees, it is also necessary to take into account the creation of certain bodies in this area. Precisely, in the Spanish system, the creation of the *Agencia Estatal de Administración Digital* and the *Agencia Española de Supervisión de la Inteligencia Artificial*³⁶⁵ is planned, as well as the Observatory on the social impact of algorithms.³⁶⁶

scheme, and with guardrails in place to prevent algorithm-washing. *What*. The subject of the audit should be explicit. The mere statement that a system should be audited leaves open the possibility of many kinds of examinations, for example of models, of human decision-making around outputs, of data access and sharing. Even just taking the first example of a technical audit, the inquiry might focus on model development only or include system outputs and also cover different periods. The range of audit scope expands further when one recognizes that the technical components of an algorithmic system are embedded in sociopolitical structures that affect how the technology works in context. Audit provisions should be clear about their scope. *Why*. Audit objectives should also be specified. The ethical or legal norms with which an audit can engage are varied and sometimes conflicting. Whether the audit seeks to confirm compliance with a narrow legal standard or enquires about a broader range of ethical commitments, the goals should be transparent and well-defined. This is important not only intrinsically for any audit, but also for facilitating comparisons between audit findings. Specifying the purpose of the audit should also take account of the potential costs for the audited entity, the regulator (if any), and the public. *How*. The standards the audit uses to assess norms like fairness, privacy, and accuracy should be as consensus-driven as possible. In the absence of consensus, which will be frequent, the standards being applied should be at minimum well-articulated. A situation in which auditors propose their own standards is not ideal. Common (or at least evident) standards will foster civil society's development of certifications and seals for algorithmic systems, while nebulous and conflicting standards will make it easier to "audit-wash" systems, giving the false impression of rigorous vetting. In short, as algorithmic decision systems increasingly play a central role in critical social functions—hiring, housing, education, and communication—the calls for algorithmic auditing and the rise of an accompanying industry and legal codification are welcome developments. But as we have shown, basic components and commitments of this still nascent field require working through before audits can reliably address algorithmic harms.

³⁶⁵ D. A. 117^a of Law 22/2021, of 28 December, on *Presupuestos Generales*.

³⁶⁶ In the *Estrategia Nacional de IA*.

Of particular interest is the figure of the *Difensore civico digitale* in Italy³⁶⁷, or in Canada the creation of a committee to assess the impact of algorithms on administrative decisions as early as 2019.³⁶⁸

It is also necessary to allude to the non-contractual or patrimonial liability³⁶⁹ as a guarantee against possible damages that there is no legal duty to bear, for example, for the inappropriate use of AI systems or even for not having done so, perhaps resorting to the figure of loss of opportunity. This can relate to what has already been expressed with regard to the duty of modernization of public administrations and even the hypothetical right to IA.

In relation to what has been said, but from another perspective, if it is argued here that good administration entails good functioning of the Administration, for example, in the provision of services -which must be efficient and effective, with the means available, including technological advances and, in particular, AI-, if this is not complied with, there will be some control and also consequences linked to this lack of good functioning. And in these cases, in which, once again, we will have to resort to the standards, it is possible to give rise to non-contractual or patrimonial liability if the requirements of the same are met.³⁷⁰ Nor should we forget the

³⁶⁷ Art. 17 *Codice di amministrazione digitale* (CAD). In addition, in the Italian system, the figure of the procedural responsible also stands out, as mentioned by D.-U. Galetta, *Digital Transition of Public Administration in Italy and the Right to a Good Administration: Problems and Prospects also in the Perspective of the Implementation of the National Recovery and Resilience Plan*, cit.

³⁶⁸ Regarding this system, see, *Directive on the taking of automatic decisions* of 4 April 2019.

³⁶⁹ On this matter, see, among other works, for example, R. Martínez Gutiérrez, *Servicio público electrónico y responsabilidad*, cit.

³⁷⁰ It is worth mentioning, for example, the non-contractual or patrimonial liability cases in the health sector or in the so-called falls in the street, which are so common in our system, and which are also ruled on by the advisory bodies, depending on the amount.

possibility of claiming the action of the administration in the face of possible inactivity.³⁷¹ Undoubtedly, all these issues require specific developments that cannot be dealt with here.

On the other hand, the guarantees include the possibility of challenge, as indicated by the French *Conseil d'État*.³⁷² Thus, for example, what happens if the obligation imposed in art. 41 of Spanish Law 40/2015 is not complied with? Well, in this regard if, for example, it generates defencelessness, it may give rise to nullity or annulment, following the general rules.³⁷³

On the side, the French system expressly provides for the consequence of non-compliance with the obligation of explicit mention in cases of a decision taken solely on the basis of entirely algorithmic processing, qualifying it as nullity.³⁷⁴ Moreover, the specific mention must be made twice, both in the online publication and in the notifications of the decisions to the data subject.³⁷⁵

However, it should be recalled that while the French regulation is based on algorithmic processing, Spanish Law 40/2015 refers to automated administrative action, which is not the same thing.

³⁷¹ In this respect, see E. M. Menéndez Sebastián, *La administración al servicio de la justicia social*, cit., in particular, 174-200.

³⁷² *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, cit.

³⁷³ On a related issue, such as the validity and invalidity of electronic acts, see E. M. Menéndez Sebastián, *La validez del acto administrativo electrónico*, in *Libro homenaje al Prof. A. Menéndez Rexach*, Thomson Reuters, Cizur Menor, 2018, 445-466; also A. D. Berning Prieto, *Validez e invalidez de los actos administrativos en soporte electrónico*, Thomson Reuters, Cizur Menor, 2019.

³⁷⁴ Art. 47 of *Loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés*, a provision which came into effect on 1 July 2020.

³⁷⁵ Mention should specify both the administration responsible for the decision, the purpose of the processing, i.e., what it was used for, a reminder of the right to obtain information on the rules defining this processing and the main features of its implementation, as well as the procedures for the exercise of this right, as already mentioned and as set out in Etalab, *Expliquer les algorithmes publics*, cit.

In any case, another fundamental aspect of the guarantees, in addition to diligence and due administrative procedure, non-discrimination and motivation and/or transparency, is effective judicial protection. In this respect, it is worth recalling what has been said regarding the possible opacity or reduction of the explainability of decisions, as well as the increased difficulties that the technical aspect may entail, with the consequent discrimination for people with less capacity and/or means to understand how it has been decided;³⁷⁶ but also its link with good administration -explained in the first chapter-, and its use as a parameter in this respect, without forgetting the connection of this with effectiveness and efficiency and with the use of AI systems and, in general, of technological tools.

If good administration implies good administrative decisions, it will be possible to judge these to analyse whether or not they are in accordance with what the legal system imposes on them, i.e., whether or not they are a reasoned, weighted and balanced decision, careful with all the interests present, reasonable and reasoned, taken through the appropriate procedure and with due diligence, as well as within a reasonable period of time. Therefore, the judge may assess whether these requirements are met and, if not, this may entail consequences, including the annulment of the decision.

It is here that it is worth recalling what Hauriou has already said, in that the Dean of Toulouse used the notion of good administration to judge the validity of acts.³⁷⁷ This also led him to consider the French

³⁷⁶ In relation to all this, the digital divide should also be taken into account. In this regard, see E. M. Menéndez Sebastián and J. Ballina Díaz, *Digital citizenship: fighting the digital divide*, cit., as well as other authors, e.g., S. Olarte Encabo, *Brecha digital, pobreza y exclusión social*, in *Temas Laborales*, no. 138, 2017, 285-313.

³⁷⁷ Along the same lines, for example, H. Welter, *Le Contrôle juridictionnel de la moralité administrative: étude de doctrine et de jurisprudence*, Recueil Sirey, Paris, 1929, 125, also understands that an act that violates the aims of good administration is null and void for excess of power. For this author, timeliness, which is linked to

Conseil d'État as being responsible for looking after the higher interest of good administration.³⁷⁸ In particular, this illustrious *jurist* linked the notion of good administration in a very special way to the appeal for excess of power.

In this way, the aforementioned French author defended the idea that the violation of good administration as the purpose of administrative action constituted, in an administrative act, a defect that affected the purpose pursued by the Administration, which would give rise to an appeal for misuse of power, on the grounds that the administrator had made a use of his power other than that for which it had been conferred upon him.³⁷⁹ Thus, one of the main issues of his vision or the application of the notion of good administration undoubtedly referred to the origin and function of the contentious-administrative jurisdiction itself and, very especially, to the appeal for excess of power, which connects with the function of this notion as regards the analysis of nullities or annulments.³⁸⁰ And let us not forget that Spanish Law 39/2015 -as well as other previous ones- includes the misuse of power as one of the grounds for annulment.

Finally, this would imply that, in effect, the notion of good administration also serves to judge the validity of administrative

good administration, is the third element of the act, which must not only be in accordance with the law and the special requirements of the administrative institution, but must also be timely. The author adds that good administration can only achieve a certain perfection if the administrative intervention captures the phenomena of social life at the right time and with an enlightened vision of all the requirements of the situation. The timeliness of the act will generally depend on the skill and capacity of the administrator.

³⁷⁸ M. Hauriou, *La jurisprudence administrative de 1892 à 1929. D'après les notes d'arrêts du recueil sirey réunies et classées*, Tome Deuxième, Libraire du Recueil Sirey, Paris, 1929, 229. The importance of the role of the *Conseil d'État*, which in France is the top of the pyramid in contentious-administrative jurisdictional control, was also praised by Hauriou's followers, such as H. Welter, *Le Contrôle juridictionnel de la moralité administrative : étude de doctrine et de jurisprudence*, cit., 23.

³⁷⁹ M. Hauriou, *La jurisprudence administrative de 1892 à 1929. D'après les notes d'arrêts du recueil sirey réunies et classées*, Tome Deuxième, cit., 725.

³⁸⁰ *Idem*.

acts since, when these violate it, they can be annulled, given that it can be understood that the aim pursued will have been misdirected, thus incurring in misuse of power and, therefore, at least, in annullability.³⁸¹

On the other hand, the question of the control of legality is closely linked to the tension between legality and opportunity or convenience,³⁸² linked to good administration.³⁸³ I am referring to the issue of control, especially of discretionary powers. If, as has been argued here about the good administrative decision-making implies, among other things, adopting the best possible decision from among the viable options, for which it is relevant to have the appropriate data and to assess the facts and circumstances with due diligence, and to know the various possible options and the consequences of each one of them -to which AI can contribute- the control of that choice is increased, since it is no longer a matter of choosing between legal indifference, given that nothing is indifferent for the Law,³⁸⁴ but of finding the best option or the

³⁸¹ It is true that the Spanish *Tribunal Supremo* has come to accept, as has already been explained, that non-compliance with the duties of good administration can lead to the annulment of the decision; however, this jurisprudence does not go into depth or even indicate on what grounds of nullity or annulment it is based in order to reach such a result, which, on the other hand, has been admitted in relation to the aforementioned effective administrative protection.

³⁸² Also referred to by M. Bassols Coma, *El principio de buena administración y la función fiscalizadora del Tribunal de Cuentas*, in VV. AA, *El Tribunal de Cuentas en España*, V. I, Instituto de Estudios Fiscales, Madrid, 1982, 271.

³⁸³ Thus, the aforementioned French author even understands that it is necessary to protect the public administration from electoral ups and downs and from being dragged along by political interests, which, in his opinion, was a guarantee of good administration and at the same time a requirement deriving from it. See M. Hauriou, *La jurisprudence administrative de 1892 à 1929. D'après les notes d'arrets du recueil sirey réunies et classées*, Tome Deuxième, cit., p. 230.

³⁸⁴ Thus, in the words of the specialist in good government and good administration J. Ponce Solé, *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración. Theoretical and jurisprudential analysis of the rescue of*

optimal option through the appropriate intellectual process for that purpose, i.e., that of decision making.

Hence, discretionality is limited by the notion of good administration, being possible to judge and control whether the decision taken has really chosen the best option or not, for which purpose the motivation, as has already been said, is absolutely relevant,³⁸⁵ as well as the reports, studies or instruments of various kinds that make it possible to have the necessary data for this correct decision making;³⁸⁶ data that can be handled by IA. All of this leads, on the other hand, to a greater control of the so-called legal opportunity or administrative convenience, as it must be aimed at finding the best option. Not to mention the role that effectiveness and efficiency have to play in this respect since these are principles that are integrated in the legal system, even at the constitutional level, so that their non-compliance also implies a violation of the same and must entail consequences.

And without forgetting that judicial control, although essential, is not the only way to determine when the administration has violated or failed to comply with the notion of good administration. In this respect, the control carried out by the *Ombudsman* or *Médiateur*, who, despite the differences existing in the various systems, carries out an important task of analysing those cases in which citizens consider that there has been an instance of maladministration, is very relevant in this respect. It should be remembered, however, that its recommendations, which are *soft law*, and although they are not binding, play an important role in defining -albeit from a negative point of view-

concessions, cit., 74, the exercise of discretion, of any discretion, is neither free nor indifferent to the law and cannot imply arbitrariness.

³⁸⁵ In this regard, see, among others, I. Milkes Sánchez, *Buena administración y la motivación de los actos administrativos expedidos en ejercicio de facultades discrecionales*, in *Revista Digital de Derecho Administrativo*, no. 21, 2019, 153-178.

³⁸⁶ See in this regard, for example, G. Doménech Pascual, *Por qué y cómo hacer análisis económico del Derecho*, in *Revista de Administración Pública*, no. 195, 2014, 99-133.

what good administration should be,³⁸⁷ as well as making recommendations or suggestions as to how the institutions or the administration should act. Thus, for example, in those cases in which it considers that there is a case of maladministration, it will propose measures of various kinds, from the modification of procedures³⁸⁸ to the appropriateness of paying compensation,³⁸⁹ to the reconsideration of a rejected application,³⁹⁰ etc. Not forgetting that many of these recommendations end up becoming *hard law*, as they are included in rules of this other type.³⁹¹

³⁸⁷ Thus, as pointed out by M. Gómez Puente, *La inactividad de la Administración*, 3rd ed., Aranzadi, Navarra, 2002, 57, the Ombudsman's reports are "authentic seams" of administrative irregularities that reflect the content of the notion studied here.

³⁸⁸ Thus, for example, in the *Recommendation of the European Ombudsman in case 212/2016/JN on the European Commission's annual reviewing of Member States' export credit agencies*.

³⁸⁹ For example, the *Recommendation of the European Ombudsman in case 723/2018/AMF on how the European Union Agency for Network and Information Security handled a public tender procedure*.

³⁹⁰ For example, this is the case of the *Recommendation of the European Ombudsman in case 552/2018/MIG on the European Commission's refusal of public access to documents concerning the German Network Enforcement Act*.

³⁹¹ With regard to the notion of good administration in *common law* systems, it is worth noting what K.-D. Classen, *Gute Verwaltung im Recht der Europäischen Union. Eine Untersuchung zu Herkunft, Entstehung und Bedeutung des Art. 41 Abs. 1 und 2 der Europäischen Grundrechtecharta*, cit., 136-137, who considers, in particular, that the United Kingdom and Ireland show strong similarities in their respective administrative approaches. This is not surprising, given their common legal tradition. However, there are clearly visible differences in the details: Irish law shows a significant tendency towards codification, which is evident not only in the written constitution, but also in other legislative activities and, above all, in the debate on an Administrative Procedure Act. Although this does not necessarily lead to a clearer outline or dogmatization of the concept of good administration, its "tangibility" increases. The enumeration of abstract case constellations as starting points for ombudsman action in the Irish Ombudsman Act makes this exemplary. In contrast, the starting and classification point in British law is the term "maladministration", which as a general clause term can

Nor can the role of other bodies such as the Spanish *Consejo de Transparencia y Buen Gobierno* or similar bodies be lost sight of.

Undoubtedly, all this connects with what has been said in this chapter regarding effectiveness, guarantees, good administration, the duty to modernize, discretionary power, the use of AI systems in decision-making, etc., in this case, from the perspective of the controls -including judicial- that can be deployed.

In short, the precautionary principle, as well as the principle of proportionality, should be used as a starting point to analyse in concrete terms whether the AI system is better than human decision-making. At the same time, we should not disregard those tools that facilitate or support decision-making with all the necessary guarantees. In particular, consider the possibility of offloading repetitive and tedious tasks so that humans can focus on more complex decisions or on cases where these are unfavourable.

only be filled with content through casuistic example cases. The differences in the legal framework show that Ireland is trying -in positive legal terms- to follow its own path towards good administration, whereas in the UK it is trying -in negative legal terms- to counteract cases of maladministration. Furthermore, access to the ombudsman varies. In both countries, the concepts of good administration largely encompass non-justiciable criteria. However, there are also overlaps with procedural rights that are clear in the courts.

CHAPTER THREE

FROM THEORY TO PRACTICE: IMPLEMENTING THE IA IN PUBLIC ACTION

TABLE OF CONTENT: 1. Possible uses of AI in the public sector: the example of subventions. – 1.1. Types of subventions procedures. – 1.2. Application of IA to subvention procedures. – 2. Essential principles to be taken into consideration in the implementation of AI systems in public administrations.

1. *Possible uses of AI in the public sector: the example of subventions*

Once the first two parts of this paper have analysed in general terms the use of AI by public administrations and the constant dichotomy in which it is immersed, as well as the context of the new public governance in which it must be embedded, the third part of this paper will analyse, albeit very briefly, some of the specific possibilities of deploying these systems in public action.¹

¹ For example, in the field of justice, see P. Simón Castellano, *Inteligencia artificial y Administración de Justicia, Quo vadis, Justitia*, in *Revista de Internet, Derecho y Política*, no. 33, 2021, 1-15; with regard to administrative procedure, P. Padilla Ruíz, *Inteligencia artificial y Administración Pública. Posibilidades y aplicación de modelos básicos en el procedimiento administrativo*, in *El Consultor de los Ayuntamientos*, vol. 10, 2019, 96-104; regarding external control, especially from the Court of Auditors and its equivalents in other countries, the monograph of the *Revista Española de Control Externo*, vol. XXII, no. 64, 2020; or regarding the health system M. A. Sandulli and F. Aperio Bella (dirs.), *Challenges for Public Law. Research group of the Interdisciplinary Research Centre on Health Law - CeSDirSan. Report of the research*

As an example, it is worth considering the use of these new tools in a specific area where they are not yet as widely deployed as in other areas, namely subventions.²

1.1. *Types of subventions procedures*

In this regard, it should be recalled, very briefly, that there is no single subvention procedure but rather different modalities in which the use of IA will be graded differently.

Thus, firstly, it should be recalled that subventions may be awarded on a competitive basis, through the ranking of applications, or, *exceptionally*, by direct award.³

*presented by the research group during the International Conference ICON-S MUNDO (July 2021), in [federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo](#), no. 17, November 2021; F. Aperio Bella, *Tecnologie innovative nel settore salute tra scarsità delle risorse e differenziazione: alla ricerca di un equilibrio difficile*, in [federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo](#), no. 2, 2020, 245-268, and N. Da Silva and A. Raully, *La télémédecine, un instrument de renouvellement de l'action publique ? Une lecture par l'économie des conventions*, in *Économie et institutions*, 24, 2016, among others. From a more general point of view of the digitisation of the health service, see also, R. Miccú, *Questioni attuali intorno alla digitalizzazione dei servizi sanitari nella prospettiva multilivello*, in [federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo](#), no. 5, 2021, 1-14.*

² See, among others, G. Fernández Farreres, *La subvención: concepto y régimen jurídico*, Instituto de Estudios Fiscales, Madrid, 1983; or A. Bueno Armijo, *El reintegro de subvenciones de la Unión Europea. Especial referencia a las ayudas de la Política Agrícola Común*, cit.; by the same author *Subvenciones locales, blockchain y actuación administrativa automatizada*, in *Blockchain y Gobiernos locales*, Madrid, Fundación Democracia y Gobierno Local, 2022, 275-324; or M. Razquín Lizarraga, *Transparencia e inteligencia artificial en las subvenciones*, in A. Cerrillo i Martínez and C. I. Velasco Rico, *Una persona como usted ha recibido esta subvención*, paper presented at the XVI Congreso de la Asociación Española de Profesores del derecho Administrativo (AEPDA), held in Seville in January 2023.

³ Specifically, direct subsidies may be granted in the following cases: a) Those provided for by name in the general budgets of the State, the Autonomous Communities or the Local Entities, under the terms set out in the agreements and in the regulations governing these subsidies. For these purposes, a subsidy

Therefore, as established in article 22 of the Spanish *Ley General de Subvenciones*, the ordinary procedure for awarding subventions will be processed on a competitive basis. For the purposes of this, the procedure by which subventions are awarded by comparing the applications submitted in order to establish a priority among them, in accordance with the assessment criteria previously established in the regulatory bases and in the call for applications, and awarding, with the limit set in the call for applications within the available credit, those that have obtained the highest score in the application of the aforementioned criteria, shall be considered competitive concurrence.

Exceptionally, and provided that this is stipulated in the regulatory bases, the law allows the competent body to apportion the maximum overall amount earmarked for subventions among the beneficiaries of the subvention.

Briefly, with regard to this procedure, and for the purpose of analysing the possibility of using different IA systems in the same, the following steps should be recalled: the call for applications -which initiates the procedure-; the application; the request for reports; if applicable, the evaluation of the applications or requests, and even the pre-evaluation in which compliance with the conditions imposed for acquiring the status of subvention beneficiary will be verified; the provisional decision proposal, duly motivated; the allegations; the proposal for the final decision, which

provided for by name in the General State Budget shall be understood to be one in which at least its budget allocation and beneficiary are determined in the budget expenditure statements. The purpose of these subsidies must be expressly determined in the corresponding collaboration agreement or grant resolution, which must in any case be consistent with the functional and economic classification of the corresponding budget appropriation. b) Subsidies whose award or amount is imposed on the Administration by a regulation of legal rank, which shall follow the grant procedure applicable to them in accordance with their own regulations. c) Exceptionally, those other subsidies in which reasons of public, social, economic or humanitarian interest are accredited, or other duly justified reasons that make it difficult to call for them to be made public.

must state the applicant or the list of applicants for whom it is proposed to award the subvention, and its amount, specifying its evaluation and the assessment criteria used to make it; in appropriate cases, acceptance; and the final decision. Without forgetting the possibility of reformulation when so provided for in the regulatory bases.

On the other hand, with regard to the direct award procedure, it is necessary to start from the idea that beneficiaries are established in the call or agreement that foresees them, in such a way that anyone who falls within this scope, in the event that they are not expressly mentioned by name, will be entitled to the same; in such a way that the investigation of the procedure will refer mainly, and even solely, to the verification that the applicant meets the requirements to be among the beneficiaries.

However, if these are the two types of subventions, there are other types of procedures in this area, such as the management and justification of subventions, the budget management procedure, the reimbursement procedure, the financial control procedure and the sanctioning procedure.

1.2. *Application of IA to subvention procedures*

Once this typology of procedures and some of their main keys have been graphically presented, it is now necessary to make specific proposals for the application of some of the AI systems described in the second part of this study.

But not before recalling the need to ensure respect for the rights of the addressees, but above all, equality. Discrimination,⁴ such as that suffered in the Netherlands,⁵ on ethnic or racial grounds in the use

⁴ A. Soriano Arnanz, *Posibilidades actuales y futuras para la regulación de la discriminación producida por algoritmos*, University of Valencia, 2020.

⁵ Amnesty International Report, *Xenophobic machines. Discrimination through unregulated use of algorithms in the dutch childcare benefits scandal*, London, 2021.

of algorithms, is absolutely intolerable, and it is therefore, necessary to start from the precautionary principle and resort to the necessary *ex ante*, *in itinere* and *ex post* controls to avoid such situations.

That said, fear should also not prevent the necessary development and innovation, recall the Italian idea of the duty to modernize administrations. On the other hand, it should be noted that the Dutch case (*SyRI*) was due to a bad design, introducing the bias based on nationality,⁶ which can occur via algorithm or manually.

Therefore, as has already been argued in this paper, it is necessary to find a balance in the choice of uses of AI systems, seeking an appropriate proportion between those aimed at control, such as the design of profiles in relation to possible fraud in the field of subventions -linked to the reimbursement procedure and even to the sanctioning procedure- and others aimed at better and faster internal and external management of subventions.

It is precisely the administrative simplification to which AI can contribute that is essential, especially when we are often faced with the granting of subventions with intolerable delays, examples of which we are all too familiar with in the university field. Not to mention the problems associated with this issue that will undoubtedly arise in the field of *Next Generation* and, in general, the granting and justification of European funds.

All of which, in turn, results in a breakdown of trust in the institutions, in the system, and an erosion that must be avoided or, at the very least, reduced. Without forgetting that, as has been said, in the current public governance in which we are immersed, the very acceptability of AI systems by civil servants and citizens is essential.

⁶ The *Rechtbank Den Haag*, in its judgment of 5 February 2020, held that the algorithmic system used by the Dutch government to assess the risk of social security or tax fraud did not meet the necessary requirements of proportionality and transparency and violated the provisions on respect for private life recognised by Article 8 of the European Convention on Human Rights (ECHR).

That is why, in my opinion, efforts should focus, in particular, on simplification, on faster and more efficient and effective allocation and management of subventions.

It is also possible to apply IA systems that facilitate the verification of compliance with the purpose inherent in the subvention and, consequently, serve to trigger, where appropriate, a reimbursement procedure.⁷

On the other hand, recall that through connectionist AI it is possible to build a model that deduces from the exploitation of a very large number of files, i.e., “by experience”, which connects with the controversial issue of profiling.

However, although without completely banishing the application of this type of tool in the fight against fraud,⁸ always with respect to the rights involved,⁹ the use of predictive algorithms in profiling should be guided by the precautionary principle, especially in view of the known history, and, where appropriate, the design, implementation and monitoring of the system should be taken to the utmost. Moreover, the GDPR already warns of the dangers of this type of use of AI in Art. 22.

It should be recalled that this provision, which is not applicable to legal persons, is limited to those cases that have legal effects or significantly affect the interested party in a similar way.

Examples include the cancellation of a contract or the denial of a

⁷ Regarding reintegro, among others, M. Rebollo Puig, *Capítulo X. El reintegro de subvenciones*, in *Comentario a la Ley General de Subvenciones*, Madrid, Thomson-Civitas, 2005, 407-527, and A. Bueno Armijo, *El reintegro de subvenciones de la Unión Europea. Especial referencia a las ayudas de la Política Agrícola Común*, Sevilla, Instituto Andaluz de Administración Pública, 2011.

⁸ On the subject of AI applied against tax fraud, see, for example, N. L. Rodríguez Peña, *La administración tributaria ante la inteligencia artificial: interrogantes jurídicos y éticos de su utilización contra el fraude fiscal*, in *Nueva Fiscalidad*, no. 3, 2021, 173-197.

⁹ This was the understanding of the French *Conseil Constitutionnel* in the aforementioned decision of 27 December 2019.

benefit, citizenship or entry into a country.¹⁰ In these cases, the effect is obvious, but when is it a question of profiles to predict possible fraud? In other words, in such cases, it does not have an immediate legal effect but even precedes the opening of the corresponding reimbursement or sanctioning procedure. The same applies when an individual decides to initiate an inspection or when this choice is made randomly.¹¹

However, it is also possible to use these positive profiling systems, for example, to design the subventions themselves,¹² to detect needs, to identify potential recipients, etc. It should also be recalled that AI systems include those that illustrate the possible consequences of public decisions, i.e., simulators, which can also contribute to better targeting and appropriate design of subvention calls.

In short, there are many applications of these systems in the field of public action, which can be divided into three basic categories: helping the recipients or citizens,¹³ facilitating internal management and contributing to control.

Thus, for example, within the first category, i.e., those uses that can be considered favourable or beneficial for the recipients of subventions, it is worth mentioning the provision of information via *chatbots*, helping users to decide which applications are best suited to their needs, digital *nudges* that facilitate the location and presentation of applications, speeding up the award procedure, and a long list of others. Without forgetting proactivity, for example, informing hypothetical interested

¹⁰ Guidelines on automated individual decisions and profiling for the purposes of Regulation 2016/679.

¹¹ In general with regard to the initiation of a procedure, given that it can be at the initiative of the public administration, A. Huergo Lora, *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, cit.

¹² A. Bueno Armijo, *Subvenciones locales, blockchain y actuación administrativa automatizada*, cit.

¹³ As an example of AI applications aimed at this type of use, D.-U. Galetta, M. Lottini and J. Ziller, *The SOL/IT Network after two decades: successes, shortcomings, and the way forward*, in *CERIDAP* special no. 1, 2022, 25-49.

recipients of the calls for applications, and even, in certain areas, urging the Administration itself to process them,¹⁴ especially when they are aimed at disadvantaged people who may be doubly discriminated against by bureaucracy.¹⁵

On the other hand, from that second aspect, i.e., from the internal perspective, facilitating the processing. Thus, for example, by verifying compliance with the requirements to be beneficiaries of a directly awarded subvention; or when it is an amount to be apportioned among applicants by calculating it; or even, when it is a competitive system, by transcribing into computer instructions what is established in the specific call (symbolic approach of the IA), or for the ranking of applications according to the scale,¹⁶ especially when

¹⁴ In this regard, see the proposals of R. Martínez Gutiérrez, *Datos abiertos, LA y subvenciones: proactividad y control*, paper presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023; and A. Cerrillo i Martínez and C. I. Velasco Rico, *Una persona como usted ha recibido esta subvención. Proceso subvencional, personalización e Inteligencia Artificial*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023.

¹⁵ In relation to this type of vulnerability see S. Ranchordas, *Automation of Public Services and Digital Exclusion*, in *I-CONnect Blog of the International Journal of Constitutional Law*, cit. and A. Nogueira, *Vulnerabilidad administrativa. Los obstáculos administrativos en el acceso a los programas de vivienda*, cit., and by the same author *El fin justifica los medios? Subvenciones y protección de personas vulnerables*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023. As also argued by M. L. Gómez Jiménez, *Decisión algorítmica (ADM) y robotización de procesos en la adjudicación de subvenciones públicas del PRTR: Limits from the right to good administration and public compliance*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023, automation in the awarding of public subsidies is causing a kind of legal asymmetry by combining, on the one hand, the progressive algorithmic programming aimed at making decisions on the awarding of these, and on the other, the still existing digital divide between those who lack digital skills that guarantee them being able to obtain the aid.

¹⁶ In cases where the competence is that of a collegiate body (art. 22.1. 2°

this is clear and precise, with no margin for chance, as is already done in the field of public procurement.¹⁷

And not only in award procedures but also in justification procedures, for example, with *blockchain* technology,¹⁸ identifying the documentation to be submitted for this purpose and even giving rise, where appropriate, to the initiation of the reimbursement procedure. This is already linked to the third type of use, i.e., the one referred to control.

This would also include the application of IA for the purpose of identifying possible incompatibilities between aid,¹⁹ or with regard to certain infringements and the corresponding sanction,²⁰ for example, to automatically require justification of compliance when it is not accredited (art. 56, g), and 57, a) and c)).

Although with the aforementioned precautions, the field of verifications is particularly well suited to this type of tool,²¹ as

Spanish *Ley General de Subvenciones*), which should validate, without incurring in the bias of automation, the decision.

¹⁷ J. C. Tejedor Bielsa, *Digital transformation, blockchain and artificial intelligence. References and experiences in Aragón*, cit. 67-69.

¹⁸ Regarding the same, see, among others, J. C. Tejedor Bielsa, *Transformación digital, “blockchain” e inteligencia artificial en la administración pública*, in *Revista Española de Derecho Administrativo*, no. 209, 2020, 111-138.

¹⁹ In this regard, the Spanish *Base Nacional de Subvenciones* should be taken into account.

²⁰ Take into consideration what is stated in art. 95 of the Spanish *Ley General Tributaria*, paragraph 1(d), which establishes that the data, reports or background information obtained by the Tax Administration in the performance of its functions are confidential and may only be used for the effective application of the taxes or resources whose management is entrusted to it and for the imposition of the appropriate penalties, and may not be transferred or communicated to third parties, unless the purpose of the transfer is to collaborate with public administrations in preventing and combating tax crime and fraud in obtaining or receiving aid or subsidies from public or European Union funds, including appropriate measures to prevent, detect and correct fraud, corruption and conflicts of interest affecting the financial interests of the European Union.

²¹ See, among others, G. Gallone, *Blockchain, procedimenti amministrativi e*

shown in the report of the *Oficina Antifraude* of Catalonia of 11 March 2022²², which recommends the use of automated systems in this respect -although it should be remembered that automation and IA are not necessarily the same thing-, as well as Law 26/2010 of 3 August, *Régimen jurídico y de procedimiento de las administraciones públicas de Cataluña*²³.

In short, it is clear that there is a wide variety of applications of AI systems that can favour greater effectiveness and efficiency of public action, from the field of purely administrative management sphere to

prevenzione della corruzione, in *Diritto dell'economia*, no. 3, 2019, 187-212. Regarding taxation, among others, I. Cruz Padiá, *Inteligencia artificial & Administración tributaria*, in *Retos de la sociedad digital. Regulación y fiscalidad en un contexto internacional*, Reus, Madrid, 2022, 73-104; A. Ribes, *La posición del contribuyente ante los Sistemas de Inteligencia Artificial utilizados por la Administración*, in *Quincena fiscal*, no. 18, 2021, 27-52; C. Baza Lomba, *Los algoritmos y la toma de decisiones administrativas. Especial referencia a la transparencia*, in *CEFLegal: Revista práctica de Derecho*, no. 243, 2021; or F. Serrano Antón (dir.), *Inteligencia artificial y administración tributaria: eficiencia administrativa y defensa de los derechos de los contribuyentes*, Thomson Reuters, Cizur Menor, 2021.

²² This report concludes that automated alert systems are an essential element in any integrity system and that they have proven to be one of the most powerful and effective tools for preventing and detecting irregularities and situations of fraud and corruption. It also recommends that the Government of Catalonia and all public sector entities take advantage of the resources of the *NextGenerationEU* funds to deepen and advance the digitisation of their activity, as well as the integrity imperatives imposed by the management of those funds to design and implement automated data-driven alert systems. In particular, this study analyses technological systems that process data through algorithms of procurement procedures, automatically detect and bring to the attention of control bodies the existence or possibility of irregularities and, eventually, prevent them from materialising.

²³ In particular, Article 44, when listing the possible uses of automated administrative action, refers to the verification of the concurrence of the requirements established by the legal system, as well as to declaring the consequences foreseen, adopting resolutions and communicating or certifying the data, acts, resolutions or agreements contained in their information systems, by means of the use of the electronic signature system that they determine.

the police, to the judicial field or the health field.²⁴ However, this opportunity, in turn, becomes the great challenge of implementing AI without undermining citizens' rights and guarantees, but rather, on the contrary, with their collaboration and acceptability. A challenge for the Administration of the 21st Century, which it must face and at the same time, take advantage of in order to become an efficient, responsible and innovative Administration, in short, to respond in the best possible way to the achievement of the general interest.

2. *Essential principles to be taken into consideration in the implementation of AI systems in public administrations*

By way of conclusion, after all that has been said, and in order to achieve the objective of improving public action while respecting citizens' rights, i.e., finding a balance between effectiveness and guarantees, it seems appropriate to propose a series of basic principles that should be taken into account when deciding to use AI in the public sector, as well as in its design and in the choice of which and how to use it, if any.

These include at least ten essential principles, such as human primacy, performance, equality, equity and non-discrimination, transparency, autonomy, environmental sustainability, proportionality, precaution, acceptability and trust, among others.

Thus, very briefly, within the human primacy, it must be ensured that AI systems have to work for the benefit of the human being, that the choice is guided by the idea of providing a benefit to the general interest.²⁵

²⁴ On all this see, among others, S. Desmoulin-Canselier and D. Le Métayer, *Décider avec les algorithmes. Quelle place pour l'Homme, quelle place pour le droit ?*, Dalloz, Paris, 2020.

²⁵ *European Declaration on Digital Rights and Principles for the Digital Decade*, COM(2022) 27 final.

As far as performance is concerned, it is clear that it must be better than when the activity in question is carried out by humans, bearing in mind that this is in response to increasing quality and effectiveness. Thus, it would not make sense to choose to implement costly or impactful AI systems if there is not sufficient improvement.

Equality, equity and non-discrimination are, in my view, crucial, which implies accessibility, universality, adoption of measures such as impact assessments or audits that avoid or mitigate the possibility of bias, algorithmic discrimination or any other infringement of the fundamental right, principle and value that equality implies.

It is also necessary to take into consideration how complexity can be more detrimental to certain disadvantaged groups or those who have fewer means to defend themselves. In this respect, several aspects should be considered, two of which should be mentioned here: the necessary quality and cleanliness of the data on which these systems are based, something that is still far from optimal in our system; and, on the other hand, the desirability of ensuring that the design and implementation teams are adequately representative.

As for transparency, it must be linked from an individual perspective to motivation and from a collective perspective to accountability. Bearing in mind that this does not only imply the disclosure of information but also its explicability. In any case, there must be no “black boxes” that prevent us from knowing how and why a decision has been taken, and it must be possible to check that the decision is correct.²⁶ Furthermore, it must also extend to the design phase, where stakeholders must be involved. And all this without forgetting auditability.

²⁶ Thus, in cases involving algorithms that cannot be explained, as stated by M. Medina Guerrero, *El derecho a conocer los algoritmos utilizados en la toma de decisiones. Aproximación desde la perspectiva del derecho fundamental a la protección de datos*, cit., 171, either the algorithm is no longer used, or its use is maintained, but merely to support a decision that must necessarily be taken by a human being.

It is also important to promote autonomy, or in other words, to avoid or reduce as much as possible dependence on others for a variety of reasons. Firstly, because the administration must be proactive and up to the task, even in order to be able to control. On the other hand, recourse to third parties entails important legal complications, from the causes of abstention and recusal, imputability for non-contractual liability purposes, problems related to transparency in the case of professional secrets, economic interests, etc.

As far as environmental sustainability is concerned, although some AI systems can indeed contribute precisely to improving it -think, for example, of flood prediction, optimization of resources, identification of species, simulation of effects on nature, etc.- it is no less true that a generalized use of these systems would also have consequences for the worsening of the environmental crisis. Think of aspects such as land occupation or electricity consumption.²⁷

Proportionality is undoubtedly a crucial aspect to be addressed when deciding on the uses of AI, if only because, as we have seen, it is essential to decide between the multiple bifurcations referred to above.

Another principle that should not be lost sight of, but, on the contrary, should guide these decisions, is that of precaution. It is necessary to be clear, or at least have sufficient guarantees, before implementing AI systems in the public sphere, which does not prevent the trial-and-error maxim from being carried out, which is a basic equation in innovation, but always with caution.²⁸

In today's society, social acceptability is also essential, which implies, among other challenges, two essential ones: culture and

²⁷ R. Schwartz, J. Dodge, N. A. Smith and O. Etzioni, *Green AI*, cit.

²⁸ It should also be recalled that the principle of social precaution has been used by the Spanish *Tribunal Supremo*, in terms of taking into account the social impact of decisions, see in this regard the judgment of Spanish *Tribunal Supremo* of 5 December 2016, Appeal no. 378/2013, whose rapporteur was Prof. José Suay.

awareness. To this end, it is necessary to raise the level of understanding of citizens and civil servants and to involve society and public employees in the design and deployment of this technology. This, in turn, is inevitably connected with participation, transparency and accountability, which are inherent to the new public governance. Thus, public authorities must opt for reliable AI, based on a set of fundamental principles and accompanied by appropriate legal, organizational, technical, pedagogical and governance measures, and involve all stakeholders.

For the sake of this acceptability, which is inextricably linked to trust, a balance is necessary so that these systems are used to control, for example, fraud, but also to improve services, to help applicants.

Even in the case of those aimed at control, emphasis should be placed on the benefit they can bring to victims of crime, or in cases of fraud detection to non-offenders and, in general, to society as a whole, by providing more resources to offer better services.

In conclusion, in the event of compliance with all these principles, the logical consequence will be an increase in effectiveness and efficiency without undermining guarantees, making it possible for good administration to be real and creating the conditions for citizens to regain confidence in the system, in the institutions, in our social and the democratic rule of law and, ultimately, in the quality of life of the citizen as the essential core of the system.

BIBLIOGRAPHY

- Acemoglu D. and Restrepo P., *Artificial intelligence, automation, and work. In The economics of artificial intelligence: An agenda*, University of Chicago Press, 2018.
- Acevedo S. and Dassen N., *Innovando para una mejor gestión. La contribución de los laboratorios de innovación pública*, Banco Interamericano de Desarrollo, 2016.
- Agarwal P. K., *Public Administration Challenges in the World of AI and Bots*, in *Public Administration Review*, vol. 78, no. 6, 2018, 917–921.
- Agenzia per l'Italia Digitale, *Libro Bianco sull'Intelligenza Artificiale al servizio del cittadino*, 2018.
- Alcolea Azcárraga C., *La responsabilidad patrimonial de la Administración y el uso de algoritmos*, in *Revista General de Derecho Administrativo*, no. 50, 2022.
- Alicino F., *L'evoluzione dell'istituto della cittadinanza. Un nuovo homo juridicus nell'epoca dello Stato dei diritti*, in VV. AA., *Scritti Degennaro*, Cacucci, Bari, 2014, 19 ff.
- Allegretti U., *L'amministrazione dall'attuazione costituzionale alla democrazia partecipativa*, Giuffrè, Milano, 2009.
- Álvarez Vélez M. I. and de Montalvo Jääskeläinen F., *La democracia ante los avances de la tecnología: una perspectiva de Derecho Constitucional*, in *Revista de las Cortes Generales*, no. 82, 2011, 283-312.
- Amnesty International, *Xenophobic machines. Discrimination through unregulated use of algorithms in the dutch childcare benefits scandal*, London, 2021.
- Angwin J., Larson J., Mattu S. And Kirchner L., *Machine Bias: There's software used across the country to predict future criminals. And it's biased against blacks*, 2016.

- Antonov A., *Gestionar la complejidad: la contribución de la UE a la gobernanza de la inteligencia artificial*, in *Revista CIDOB d'Afers Internacionals*, no. 131, 2022, 41-68.
- Aoki N., *An experimental study of public trust in AI chatbots in the public sector*, in *Government. vernment Information Quarterly*, vol. 37, Issue 4, 2020, 101490.
- Aperio Bella F., *Tecnologie innovative nel settore salute tra scarsità delle risorse e differenziazione: alla ricerca di un equilibrio difficile*, in *federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo*, no. 2, 2020, 245-268.
- Aragóns Seijo I., *Responsabilidad Patrimonial y los estándares de calidad de las cartas de servicio en la determinación del funcionamiento de la actividad administrativa*, in *La Administración Práctica*, no. 10, October 2020.
- Arena G., *Trasparenza amministrativa e democrazia*, in Berti G. and De Martin G. C. (eds.), *Gli istituti della democrazia amministrativa*, Giuffrè, Milano, 1996, 16 ff.
- Asatiani A. et al., *Challenges of Explaining the Behavior of Black-Box AI Systems*, in *MIS Quarterly Executive*, vol. 19, Issue 4, Article 7, 2020.
- Auby J.-B., *Algorithmes et Smart Cities : Données Juridiques*, in *Revue générale du droit. Etudes et réflexions*, 2018.
- Auby J.-B., *Le droit administratif face aux défis du numérique*, in *Actualité juridique droit administratif*, no. 15, 835-844.
- Auby J.-B., *Administrative Law Facing Digital Challenges*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 7-15.
- Balbo Di Vinadio T., van Noordt C., Vargas Álvarez del Castillo C. and Avila R., *Artificial Intelligence and Digital Transformation. Competencies for Civil Servants*, Unesco, 2022.
- Barnés J., *Buena administración, principio democrático y procedimiento administrativo*, in *Revista Digital de Derecho Administrativo*, no. 21, 2019, 77-123.
- Barocas S. and Selbst A. D., *Big data's disparate impact*, in *California Law Review*, 2016, 104, 671-732.
- Barone A., *Amministrazione del rischio e intelligenza artificiale*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 63-67.
- Barraud B., *L'intelligence artificielle : dimension juridique*, in *L'intelligence artificielle – Danstoutes ses dimensions*, Université Paris 1 Panthéon-

- Sorbonne-Université Jiao Tong de Shanghai-L'Harmattan, coll. Europe & Asie, 2019.
- Barraud B., *Vers une quatrième révolution industrielle ? L'IA comme moteur, les données commecarburant*, in *L'intelligence artificielle – Dans toutes ses dimensions*, L'Harmattan, Paris, 2019.
- Bassols Coma M., *El principio de buena administración y la función fiscalizadora del Tribunal de Cuentas*, in VV. AA., *El Tribunal de Cuentas en España*, V. I, Instituto de Estudios Fiscales, Madrid, 1982.
- Baza Lomba C., *Los algoritmos y la toma de decisiones administrativas. Especial referencia a la transparencia*, in *CEFLegal: Revista práctica de Derecho*, no. 243, 2021.
- Belli L. and Guglielmi G. J. (eds.), *L'Etat digital : numérisation de l'administration publique et administration publique du numérique*, Berger-Levrault, France, 2022.
- Bellotti M., *A.I. Is Solving the Wrong Problem. People don't make better decisions when given more data, so why do we assume A.I. will?*, 2021.
- Bensamoun A. and Loiseau G. (eds.), *Droit de l'intelligence artificielle*, 2nd ed., LGDJ, Paris, 2022.
- Berning Prieto A. D., *Validez e invalidez de los actos administrativos en soporte electrónico*, Thomson Reuters, Cizur Menor, 2019.
- Berryhill J., Kok Heang K., Clogher R. and McBride K., *Hello, World: Artificial Intelligence and its Use in the Public Sector*, *OECD Working Papers on Public Governance*, no. 36, OECD Publishing, Paris, 2020.
- Billion A., *Sous le règne des machines à gouverner. Le droit entre intelligence artificielle et raison naturelle*, Bruylant, Brussels, 2022.
- Binns R. et al., *It's Reducing a Human Being to a Percentage': Perceptions of Justice in Algorithmic Decisions*, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 2018.
- Blanes Climent M. A., *La transparencia informativa de las administraciones públicas: el derecho de las personas a saber y la obligación de difundir información pública de forma activa*, Thomson Reuters, Navarra, 2014.
- Bobbio N., *Democrazia e segreto*, Einaudi, Tornio, 2011.
- Boix Palop A., *Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados*

- por la administración para la adopción de decisiones*, in *Revista de Derecho Público: Teoría y Método*, 1, 2020, 223-269.
- Bolukbasi T., Chang K. W., Zou J. Y., Saligrama V. and Kalai A. T., *Man is to computer programmer as woman is to homemaker? debiasing word embeddings*, in *Advances in neural information processing systems*, 2016, 4349-4357.
- Boto Álvarez A., *Tratamiento de datos personales: entre la protección francesa de la vida privada y el mercado digital único*, in *Revista General de Derecho Administrativo*, no. 49, 2018.
- Botta J., *Federalism, legal fragmentation and register modernisation: challenges for the digital transformation of public administration in Germany*, in *CERIDAP*, special no. 1, 2022, 109-133.
- Bousta R., *Essai sur la notion de bonne administration en Droit public*, L'Harmattan, Paris, 2010.
- Bousta R., *Pour une approche conceptuelle de la notion de bonne administration*, in *Revista digital de Derecho administrativo*, no. 21, first semester /2019, 23 ff.
- Brauneis R. and Goodman E. P., *Algorithmic Transparency for the Smart City*, in *Yale Journal of Law & Technology*, vol. 20, 2018, 103-176.
- Bridgesmith L. and Elmessiry A., *The Digital Transformation of Law: Are We Prepared for Artificially Intelligent Legal Practice?*, in *Akron Law Review*, vol. 54, Issue 4, 2021, Article 3, 813-826.
- Britain Thinks, *Complete transparency, complete simplicity. How can the public sector be meaningfully transparent about algorithmic decision making?*, 17 June 2021.
- Bueno Armijo A., *El reintegro de subvenciones de la Unión Europea. Especial referencia a las ayudas de la Política Agrícola Común*, Sevilla, Instituto Andaluz de Administración Pública, 2011.
- Bueno Armijo A., *Subvenciones locales, blockchain y actuación administrativa automatizada*, in *Blockchain y Gobiernos locales*, Madrid, Fundación Democracia y Gobierno Local, 2022, 275-324.
- Buoso E., *Fully Automated Administrative Acts in the German legal System*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 113-122.
- Busch P. A. and Henriksen H. Z., *Digital Discretion: A Systematic*

- Literature Review of ICT and Street-level Discretion*, 1 January 2018, 3-28.
- Calderón Gómez D., *The third digital divide and Bourdieu: Bidirectional conversion of economic, cultural, and social capital to (and from) digital capital among young people in Madrid*, in *New Media & Society*, vol. 23, Issue 9, 2021, 2534–2553.
- Caliskan A., Bryson J. J. and Narayanan A., *Semantics derived automatically from language corpora necessarily contain human biases*, in *Science*, 14 April 2017, vol. 356, Issue 6334, 183-186.
- Campione R., *La plausibilidad del derecho en la era de la inteligencia artificial. Filosofía carbónica y filosofía silícica del derecho*, Dykinson, Madrid, 2020.
- Campmas A., Iacob N. and Simonelli F., *How can interoperability stimulate the use of digital public services? An analysis of national interoperability frameworks and e-Government in the European Union*, in *Data & Policy*, e19, 2022, 1-24.
- Campos Acuña M. C., *Inteligencia Artificial e Innovación en la Administración Pública: (in) necesarias regulaciones para la garantía del servicio público*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, no. 23, 2019, 74-91.
- Canals Ametller D., *El acceso público a datos en un contexto de transparencia y de buena regulación*, in D. Canals Ametller (ed.), *Datos. Protección, transparencia y buena regulación*, Documenta Universitaria, Girona, 2016, 11-52.
- Canals Ametller D., *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, in *Revista General de Derecho Administrativo*, no. 50, 2019.
- Caplan R. et al., *Algorithmic accountability: a primer*, in *Data & Society*, 2018.
- Cardi Q., *Les normes de la démocratie à l'épreuve de la participation citoyenne numérique institutionnalisée : une étude de l'appropriation du numérique par le politique dans le cadre des processus de participation citoyenne*, Thèse, Philosophie, Université Panthéon-Sorbonne - Paris I, 2018.
- Carloni E., *IA, algoritmos y Administración pública en Italia*, in *IDP: revista de Internet, derecho y política*, no. 30, 2020, 1-12.

- Carmi E. and Yates S. J., *What do digital inclusion and data literacy mean today?*, in *Internet Policy Review*, no. 9, Issue 2, 2020.
- Carullo G., *Decisione amministrativa e intelligenza artificiale*, in *Diritto dell'informazione e dell'informatica*, fasc. 3, 2021, 431-461.
- Carullo G., *L'amministrazione quale piattaforma di servizi digitali*, Editoriale Scientifica, Naples, 2022.
- Cassese S., *Il cittadino e l'amministrazione pubblica*, in *Rivista Trimestrale di Diritto Pubblico*, 4, 1998, 1015-1033.
- Cassese S., *Il diritto alla buona amministrazione*, in *Relazione alla Giornata sul diritto alla buona amministrazione per il 25° anniversario della legge sul "Síndic de Greuges" della Catalogna*, Barcelona, 2009.
- Castellanos Claramunt J., *Democracia, Administración pública e inteligencia artificial desde una perspectiva política y jurídica*, in *Revista Catalana de Dret Públic*, no. 60, 2020, 137-147.
- Castelluccia C. and Le Métayer D., *Understanding algorithmic decision-making: Opportunities and challenges*, EPRS, Brussels, 2019.
- Castillo C., *Algorithmic Discrimination*, in *Conferencia en BCN Analytics Data and Ethics event*, April 2018.
- Castillo Ramos-Bossini S. E. (coord.) and Cerrillo i Martínez A. (ed.), *La Administración digital*, Dykinson, Madrid, 2022.
- Cavallaro M. C., *Imputazione e responsabilità delle decisioni automatizzate*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 69-74.
- Centola D., *The network science of collective intelligence*, in *Trends in Cognitive Sciences*, November 2022, vol. 26, no. 11, 923-941.
- Centre for Data Ethics and Innovation, *Review into bias in algorithmic decision-making*, London, November 2020.
- Cerrillo i Martínez A., *Las leyes de transparencia y la innovación en las administraciones públicas*, in *Revista Internacional de Transparencia e Integridad*, 5, 2017, 1 ff.
- Cerrillo i Martínez A., *El impacto de la inteligencia artificial en el derecho administrativo. ¿Nuevos conceptos para nuevas realidades técnicas?*, in *Revista General de Derecho Administrativo*, 50, 2019.
- Cerrillo i Martínez A., *Retos y oportunidades del uso de la inteligencia artificial*

- en las administraciones públicas*, in *Oikonomics Revista de economía, empresa y sociedad*, no. 12, November 2019.
- Cerrillo i Martínez A., *¿Son fiables las decisiones de las Administraciones públicas adoptadas por algoritmos?*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 16-36.
- Cerrillo i Martínez A., *El derecho para una inteligencia artificial centrada en el ser humano y al servicio de las instituciones*, in *IDP: revista de Internet, derecho y política*, no. 30, 2020.
- Cerrillo i Martínez A. and Peguera Poch M. (coords.), *Retos jurídicos de la inteligencia artificial*, Thomson Reuters, Cizur Menor, 2020.
- Cerrillo i Martínez A. and Velasco Rico C. I., *Una persona como usted ha recibido esta subvención. Proceso subvencional, personalización e Inteligencia Artificial*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo (AEPDA)*, held in Seville in January 2023.
- Chatry S. and Gobert T. (eds.), *Numérique : nouveaux droits, nouveaux usages*, Mare & Martin, Le Kremlin-Bicêtre, 2017.
- Chaves J. R., *Principio de buena administración: nuevo paradigma de control de la discrecionalidad*, in *de la Justicia.com*, 7 June 2016.
- Chevalier E., *Bonne administration et Union européenne*, Bruylant, Brussels, 2014.
- Chevallier J., *De l'Administration démocratique à la démocratie administrative*, in *Revue Française d'Administration Publique*, vol. 137-138, 2011, 217-227.
- Chevallier J., *Le "public" du code*, in Koubi G., Cluzel-Métayer L., Tanzani W., *Lectures critiques du Code des relations du public avec l'administration*, Lextenso, 2018, 127-140.
- Chevallier J., *Vers l'État plateforme ?*, in *Revue française d'administration publique*, no. 167, 2018, 627-638.
- Chollet F., *L'apprentissage profond avec Python*, France, machine learning.fr, 2020.
- Christophe B., *La transparence administrative en droit français*, *Economic papers*, 2006, 59-67.
- Classen K.-D., *Gute Verwaltung im Recht der Europäischen Union. Eine Untersuchung zu Herkunft, Entstehung und Bedeutung des Art. 41 Abs.*

- 1 und 2 der Europäischen Grundrechtecharta*, Duncker & Humblot, Berlin, 2008.
- Cluzel-Metayer L., *La loi pour une République numérique : l'écosystème de la donnée saisi par le droit*, in *L'Actualité juridique. Droit administratif*, Dalloz, 2017, 340 ff.
- Cluzel-Metayer L., *La construction d'un service public de la donnée*, in *Revue Française d'Administration Publique*, no. 167, 3/2018, 491-500.
- Cluzel-Metayer L., *The Judicial Review of the Automated Administrative Act*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 101-103.
- CNIL, *Comment permettre à l'homme de garder la main ? Les enjeux éthiques des algorithmes et de l'intelligence artificielle*, France, 2017.
- CNIL, *Algorithmes : prévenir l'automatisation des discriminations*, Paris, 2020.
- Colapietro C., *La Proposta di Artificial Intelligence Act: quali prospettive per l'Amministrazione digitale?*, in *CERIDAP*, special no.1, 2022, 1-24.
- Commission d'Oxford sur l'IA et la bonne gouvernance, *L'IA dans le service public : Des principes à la pratique*, University of Oxford, Oxford, 2021.
- Conseil d'État, *Consulter autrement, participer effectivement*, La Documentation Française, 2011, Paris.
- Conseil d'État, *Puissance publique et plateformes numériques : accompagner l'« ubérisation »*, Les rapports du Conseil d'État, Paris, 2017.
- Conseil d'État, *La citoyenneté. Être (un) citoyen aujourd'hui*, La Documentation Française, Paris, 2018.
- Conseil d'État, *Les expérimentations : comment innover dans la conduite des politiques publiques?*, La Documentation Française, Paris, 2019.
- Conseil d'État, *Étude annuelle 2020 : Conduire et partager l'évaluation des politiques publiques*, La Documentation Française, Paris, 2020.
- Conseil d'État, *Les pouvoirs d'enquête de l'administration*, Conseil d'État, Paris, 2021.
- Conseil d'État, *Intelligence artificielle et action publique : construire la confiance, servir la performance. Etude adoptée en assemblée générale plénière du 31/03/2022*, Paris, 2022.
- Copeland E., *10 principles for public sector use of algorithmic decision making*.

- What should be in a code of standards for public sector use of algorithmic decision making?*, in *Government Innovation*, 28 June 2018.
- Copeland E., *20 questions for public sector use of algorithmic decision making*, in *Government Innovation*, 28 June 2018.
- Corvalán J. G. and Le Fevre Cervini E. M., *Prometea experience. Using AI to optimize public institutions*, in *CERIDAP*, no. 2/2020, 27-35.
- Cotino Hueso L., *Derecho y "gobierno abierto". La regulación de la transparencia y la participación y su ejercicio a través del uso de las nuevas tecnologías y las redes sociales por las Administraciones públicas: propuestas concretas*, in *Revista Aragonesa de Administración Pública*, no. Extraordinary, 2013, 51 ff.
- Cotino Hueso L., *Riesgos e impactos del big data, la inteligencia artificial y la robótica. Enfoques, modelos y principios de la respuesta del Derecho*, in *Revista General de Derecho Administrativo*, no. 50, 2019.
- Cotino Hueso L., *Ética en el diseño para el desarrollo de una inteligencia artificial, robótica y big data confiables y su utilidad desde el derecho*, in *Revista Catalana de Dret Públic*, no. 58, 29-48.
- Council of Europe, *Algorithms and Human Rights. Study on the Human Rights Dimensions of Automated Data Processing Techniques (in particular Algorithms) and Possible Regulatory Implications*, Doc. DGI(2017)12.
- Criado J. I., *Inteligencia Artificial (y Administración Pública)*, in *Economía. Revista en Cultura de la Legalidad*, no. 20, 2021, 348-372.
- Criado J. I. and Gil-García J. R., *Creating public value through smart technologies and strategies. From digital services to artificial intelligence and beyond*, in *International Journal of Public Sector Management*, vol. 32, no. 5, 2019, 438-450.
- Crocci S., *Gli obblighi di pubblicità e trasparenza nelle pubbliche amministrazioni ed il rispetto della privacy: la formazione ICT del personale come grandezza predittiva*, in *CERIDAP*, no. 4, 2020, 50-95.
- Cruz Padial I., *Inteligencia artificial & Administración tributaria*, in *Retos de la sociedad digital. Regulación y fiscalidad en un contexto internacional*, Reus, Madrid, 2022, 73-104.
- Custos D. and Larralde J.-M. (eds.), *La motivation des actes administratifs*.

- Le droit français à la lumière du droit administratif comparé*, in *Cahiers de la recherche sur les droits fondamentaux*, no. 17, 2019.
- Da Silva N. and Raully A., *La télémédecine, un instrument de renouvellement de l'action publique ? Une lecture par l'économie des conventions*, in *Économie et institutions*, 24, 2016.
- Dallem F., Quéméner M. and Wierre C., *Quels droits face aux innovations numériques ?*, Gualino, Paris, 2020.
- De Bas Sotelo M. A. and García-Monteavaro Martín M., *Buenas prácticas en la innovación pública. 50 + 1 Experiencias para la Transformación*, Wolters Kluwer, Madrid, 2021.
- De La Sierra S., *Control judicial de los algoritmos: robots, administración y estado de derecho*, in *Derechocal.es*, 2021.
- De Miguel Molina M., Bañón Gomis A. and Catalá-Pérez D., *Management para las Administraciones públicas*, Universitat Politècnica de Valencia, Valencia, 2017.
- Debaets E., *Protection des droits fondamentaux et participation de l'individu aux décisions publiques*, in *Jurisdoctoria*, vol. 4, 2010, 175 ff.
- Delpérée F., *Rapport de synthèse sur la citoyenneté administrative*, in *Annuaire Européen d'Administration publique*, Presses Universitaires d'Aix-Marseille, Aix-en-Provence, 199-210.
- Denhardt R. B. and Denhart J. V., *The new public service: serving rather than steering*, in *Public Administration Review*, vol. 60, Issue 6, 2000, 549-559.
- Desmoulin-Canselier S. and Le Métayer D., *Décider avec les algorithmes. Quelle place pour l'Homme, quelle place pour le droit ?*, Dalloz, Paris, 2020.
- Dhami S., al-Nowaihi A. and Sunstein C. R., *Heuristics and Public Policy: Decision Making Under Bounded Rationality*, in *Harvard Public Law Working Paper*, no. 19-04, June 19, 2018.
- Doménech Pascual G., *Por qué y cómo hacer análisis económico del Derecho*, in *Revista de Administración Pública*, no. 195, 2014, 99-133.
- Domínguez Álvarez J. L., *Inteligencia Artificial, derecho administrativo y protección de datos personales. Entre la dignidad de la persona y la eficacia administrativa*, in *Ius et Scientia*, vol. 7, no. 1, 2021, 304-326.

- Drösser C., *Total berechenbar? Wenn Algorithmen für uns entscheiden*, Hanser, München, 2016.
- Donier V., *Les droits de l'usager et ceux du citoyen*, in *Revue française de droit administratif*, vol. 1, 2008, 13 ff.
- Dumont G., *La citoyenneté administrative*, Phd thesis, Université Panthéon-Assas Paris 2, 2002.
- Edwards L. and Veale M., *Enslaving the Algorithm: From a "Right to an Explanation" to a "Right to Better Decisions"?*, in *IEEE Security & Privacy*, vol. 16, Issue 3, 2018, 46–54.
- Eggers W. D., Schatsky D. and Viechnicki P., *AI-augmented government. Using cognitive technologies to redesign public sector work*, Deloitte, 2017.
- Etalab, *Expliquer les algorithmes publics*, 2022 (guides.etalab.gouv.fr).
- Etalab, *Pseudonymiser des documents grâce à l'IA*, 2022 (guides.etalab.gouv.fr).
- Etalab, *Ouvrir les codes sources*, 2022 (guides.etalab.gouv.fr).
- Eubanks V., *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, St Martin's Press, New York, 2018.
- European Law Institute, *Model Rules on Impact Assessment of Algorithmic Decision-Making Systems Used by Public Administration*, ELI, Vienna, 2022.
- Eveillard G., *La citoyenneté administrative, vecteur de nouveaux droits publics subjectifs des administrés ?*, in *Les droits publics subjectifs de l'administré*, Bordeaux, France, Association française pour la recherche en droit administratif, Jun 2011, 109 ff.
- Falletta P., *Lo "Stato digitale". La trasparenza amministrativa in rete: le nuove piattaforme digitali per la diffusione di contenuti informativi*, in *Rivista trimestrale di diritto pubblico*, no. 2, 2021, 559-568.
- Faure L., Vendramin P. and Schurmans D., *A situated approach to digital exclusion based on life courses*, in *Internet Policy Review*, no. 9, Issue 2, 2020.
- Fernández Farreres G., *La subvención: concepto y régimen jurídico*, Instituto de Estudios Fiscales, Madrid, 1983.
- Fernández Salmerón M. and Valero Torrijos J., *Régimen jurídico de la transparencia del sector público: del Derecho de acceso a la reutilización de la información*, Thomson Reuters, Navarra, 2014.

- Ferrara R., *La partecipazione al procedimento amministrativo: un profilo critico*, in *Diritto amministrativo: rivista trimestrale*, no. 2, 2017, 209-234.
- Ferrer Jeffrey B., *Presente y futuro del Defensor del Pueblo Europeo, guardián de la buena administración*, in *Revista de Derecho de la Unión Europea*, vol. 3, 2022, 341-353.
- Finck M., *Blockchains and Data Protection in the European Union*, in *European Data Protection Law Review*, no. 1, 2018, 17-35.
- Finck M., *Automated Decision-Making and Administrative Law*, Max Planck Institute for Innovation and Competition Research Paper no. 19-10.
- Finck M. and Moscon V., *Copyright Law on Blockchains: Between New Forms of Rights Administration and Digital Rights, Management 2.0*, in *IIC - International Review of Intellectual Property and Competition Law*, vol. 50, 2019, 77-108.
- Flack J., Ipeirotis P., Malone T. W., Mulgan G. and Page S. E., *Editorial*, in *Collective Intelligence*, August-September 2022.
- Florian P., *La participation du citoyen à la décision administrative*, Droit, Université Rennes 1, 2018.
- FRA, *Getting the future right. Artificial Intelligence and fundamental rights*, Publications Office of the European Union, Luxembourg, 2020.
- Fragale E., *El derecho (europeo) a la buena administración y el problema de la autonomía de las pretensiones participativas en el ordenamiento italiano*, in *Revista Digital de Derecho Administrativo*, no. 21, 2019, 125-151.
- Fantigrossi U., *Automazione e pubblica amministrazione*, Il Mulino, Bologna, 1993.
- Fröhlich W., Spiecker I. and Döhmann G., *Können Algorithmen diskriminieren?*, in *Verfassungsblog*, 26 December 2018.
- Fuertes López M., *Reflexiones ante la acelerada automatización de actuaciones administrativas*, in *Revista Jurídica de Asturias*, no. 45, 2022, 105-124.
- Fuertes López M., *Metamorfosis del Estado. Maremoto digital y ciberseguridad*, Marcial Pons, Madrid, 2022.
- Galetta D.-U., *Public Administration in the Era of Database and Information Exchange Networks: Empowering Administrative Power or Just Better Serving the Citizens?*, in *European Public Law* 25, no. 2, 2019, 171-182.
- Galetta D.-U., *Algoritmi, procedimento amministrativo e garanzie: brevi*

- riflessioni, anche alla luce degli ultimi arresti giurisprudenziali in materia*, in *Rivista Italiana di Diritto Pubblico Comunitario*, no. 3-4, 2020, 501-516.
- Galetta D.-U., *Digitalizzazione e diritto ad una buona amministrazione (il procedimento amministrativo, fra diritto UE e tecnologie ICT)*, in R. Cavallo Perin e D.-U. Galetta, *Digitalizzazione e Diritto Ad Una Buona Amministrazione (Il Procedimento Amministrativo, Fra Diritto UE e Tecnologie ICT)*, Giappichelli, Torino, 2020, 85-117.
- Galetta D.-U., *Digitalizzazione e diritto ad una buona amministrazione*, in *CERIDAP*, fasc. 3/2021, 197-205.
- Galetta D.-U., *Derechos y garantías concretas respecto del uso por los poderes públicos de decisiones automatizadas e Inteligencia Artificial: la importancia de las garantías en el procedimiento administrativo*, in L. Cotino Hueso, M. Bauzá Reilly (ed), *Derechos y garantías ante la inteligencia artificial y las decisiones automatizadas*, Aranzadi Thomson Reuters, Cizur Menor, 2022, España, 181-203.
- Galetta D.-U., *Digital Transition of Public Administration in Italy and the Right to a Good Administration: Problems and Prospects also it in the Perspective of the Implementation of the National Recovery and Resilience Plan*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Galetta D.-U. and Corvalán J. G., *Intelligenza Artificiale per una Pubblica Amministrazione 4.0? Potenzialità, rischi e sfide della rivoluzione tecnologica in atto*, in *Federalismi.it*, no. 3/2019, 6 February 2019, 1-23.
- Galetta D.-U., D'Ancona S. and Provenzano P., *Soccorso istruttorio e pubblica amministrazione digitalizzata: riflessioni sulle 'magnifiche sorti e progressive' di un istituto dal grande potenziale, ma ancora largamente sottoutilizzato*, in *CERIDAP*, 2/2022, 22-45.
- Galetta D.-U., Lottini M. and Ziller J., *The SOLVIT Network after two decades: successes, shortcomings, and the way forward*, in *CERIDAP*, special no. 1, 2022, 25-49.
- Galetta D.-U. and Pinotti G., *Automation and Algorithmic Decision-Making Systems in the Italian Public Administration*, in *CERIDAP*, 16 January 2023.
- Galindo Caldés R., *Automatización, inteligencia artificial y empleados*

- públicos*, in *Retos jurídicos de la inteligencia artificial*, Thomson Reuters, Cizur Menor, 2020, 93-112.
- Gallone G., *Blockchain, procedimenti amministrativi e prevenzione della corruzione*, in *Diritto dell'economia*, no. 3, 2019, 187-212.
- Gallone G., *Riserva di umamità e funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo*, CEDAM Wolters Kluwer, Padua, 2023.
- Gamero Casado E., *El derecho digital a participar en los asuntos públicos: redes sociales y otros canales de expresión*, in De La Quadra-Salcedo T. and Piñar Mañas J. L. (dirs.), Barrio Andrés M. and Toirregrosa Vázquez J. (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 235-236.
- Gamero Casado E., *Necesidad de motivación e invalidez de los actos administrativos sustentados en inteligencia artificial o en algoritmos*, in *Almacén de Derecho*, 2021.
- Gamero Casado E., *Supervisión, auditoría y control jurídico en la contratación pública de soluciones de robotización e inteligencia artificial para soporte a la toma de decisiones*, in *Observatorio de Contratación Pública*, 11/10/2022.
- Gamero Casado E., *Automated Decision-Making Systems in Spanish Administrative Law*, in *CERIDAP*, 2023.
- Gamero Casado E. (coord.), *Simplificación del procedimiento administrativo y mejora de la regulación. Una metodología para la eficacia y el derecho a la buena administración*, Tirant lo Blanch, Valencia, 2014.
- Gamero Casado E. (dir.) and Pérez Guerrero F. L. (coord.), *Inteligencia Artificial y sector público. Retos, límites y medios*, Tirant lo Blanch, Valencia, 2023.
- Garapon A. and Lassègue J., *Justice digitale. Révolution graphique et rupture anthropologique*, PUF, Paris, 2018.
- García de Enterría E., *Principes et modalités de la participation à la vie administrative*, in Delpérée F. (dir.), *La participation directe du citoyen à la vie politique et administrative (Travaux des XIIes Journées d'études juridiques Jean Dabin)*, Bruylant, Brussels, 1986, 257 ff.
- García de Enterría E., *Democracia, jueces y control de la Administración*, Civitas, Madrid, 1996.
- García Novoa C. and Santiago Iglesias D. (eds.), *4ª Revolución industrial:*

- impacto de la automatización y la inteligencia artificial en la sociedad y la economía digital*, Thomson Reuters, Cizur Menor, 2018.
- Gauche K. and Ologeanu-Taddei R., *Enjeux et services de l'administration électronique locale. Etude de cas*, in *Nouveaux usages de l'internet dans les collectivités territoriales LAE NICE*, Nice, 2011.
- Gegenhuber T., Mair J., Lührsen R. and Thäter L., *Orchestrating distributed data governance in open social innovation*, in *Information and Organization*, vol. 33, Issue 1, 2023, 100453.
- Gerards J. and Xenidis R., *Algorithmic Discrimination in Europe: Challenges and Opportunities for EU Gender Equality and Non-Discrimination Law*, European network of legal experts in gender equality and non-discrimination, Publication Office, European Union, 2020.
- Giavazzi M., *Anatomia del proceso amministrativo. Riflessioni sull'autonomia processuale negli Stati dell'UE*, Editoriale Scientifica, Naples, 2021.
- Gilles W., *From the right to transparency to the right to open government in a digital era. A French approach*, in *International Journal of Open Government*, 27 ff.
- Gómez Jiménez M. L., *Decisión algorítmica (ADM) y robotización de procesos en la adjudicación de subvenciones públicas del PRTR: límites desde el derecho a la buena administración y el compliance público*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo (AEPDA)*, held in Seville in January 2023.
- Gómez Puente M., *La inactividad de la Administración*, 3rd ed., Aranzadi, Navarra, 2002.
- González M., *¿Cómo funciona Predpol, el software que dice predecir dónde van a suceder crímenes?*, in *Xataka*, 14 February 2015.
- Goodman B. and Flaxman S., *European Union regulations on algorithmic decision-making and a "right to explanation"*, in *arXiv:1606.08813*.
- Goodman E. P. and Tréhu J., *AI Audit-Washing and Accountability*, GMF, Policy Paper, Washington, November 2022.
- Greffet F. and Wojcik S., *La citoyenneté numérique. Perspectives de recherche*, in *Réseaux*, vol. 184-185, 2014/2-3, 125-159.
- Grévin O., *Une transparence des algorithmes publics limitée au seul cadre des*

- décisions individuelles ?*, *International Journal of Digital and Data Law*, vol. 8, 2022, 163-179.
- Groupe d'experts de haut niveau sur l'intelligence artificielle, *Une définition de l'IA : principales capacités et disciplines scientifiques*, Commission européenne, Brussels, 2018.
- Gualdi F. and Cordella A., *Artificial Intelligence and Decision-Making: the question of Accountability*, in *Emerging Topics in Digital Government*, 5 January 2021, 2297-2306.
- Guaresi M. and Mayaffre D., *Intelligence artificielle et discours politique. Quelles plus-values interprétatives ? Application aux corpus parlementaire et présidentiel contemporains*, in *L'intelligence artificielle des textes. Des algorithmes à l'interprétation*, Lettres numériques, 2021, 131-182.
- Guarnaccia E., *Il processo di digitalizzazione delle gare d'appalto: dal DM n. 148/2021 al Codice dei Contratti Pubblici 2023*, in *CERIDAP*, special no. 1, 2022, 134-149.
- Guichot E., *El nuevo derecho europeo de acceso*, in *Revista de Administración Pública*, 160, January-April 2003, 283-315.
- Guichot E., *Acceso a la información en poder de la Administración y protección de datos personales*, in *Revista de Administración Pública*, 173, May-August 2007, 407-445.
- Guichot E. (dir.), *Derecho de comunicación*, Iustel, Madrid, 2018.
- Guillaud H., *Vers des algorithmes exemplaires ?*, en *Internet Actu*, 2018.
- Gutiérrez David M. E., *Administraciones inteligentes y acceso al código fuente y los algoritmos públicos. Conjurando riesgos de cajas negras decisionales*, in *Derecom*, 30, 2021, 143-228.
- Gutiérrez Rodríguez F., *El derecho de la ciudadanía a una buena administración. La Administración electrónica*, Diputación de Málaga.
- Hahn R. W. and Sunstein C. R., *The Precautionary Principle as a Basis for Decision Making*, in *The Economists' Voice*, vol. 2, no. 2, Article 8, 2005, 1-11.
- Hargittai E., *Second-Level Digital Divide: Differences in People's Online Skills*, in *First Monday*, no. 7, Issue 4, 2002.
- Hauriou M., *La jurisprudence administrative de 1892 à 1929. D'après les notes d'arrêts du recueil sirey réunies et classées*, Tomes Deuxième and Troisième, Librairie du Recueil Sirey, Paris, 1929.

- Hautamäki A. and Oksanen K., *Digital Platforms for Restructuring the Public Sector*, 2018, 91-108.
- Herrera Orellana L. A. and Hidalgo M. M., *Inteligencia artificial y derecho administrativo: problemas y criterios éticos en la incorporación de la IA en la administración pública*, in *Inteligencia artificial y derecho: desafíos y perspectivas*, Tirant lo Blanch, Valencia, 2021, 217-240.
- Hickok M., *Public procurement of artificial intelligence systems: new risks and future proofing*, in *AI & SOCIETY*, 2 October 2022.
- Hindman M., *The myth of digital democracy*, Princeton University Press, 2009.
- Hofmann H. C. H., *Comparative Law of Public Automated Decision-Making. An Outline*, in *CERIDAP*, 9 January 2023.
- Huergo Lora A., *Una aproximación a los algoritmos desde el derecho administrativo*, in *La regulación de los algoritmos*, Thomson Reuters, Cizur Menor, 2020.
- Huergo Lora A., *El proyecto de Reglamento sobre la Inteligencia Artificial*, in *Almacén de Derecho*, 17 April 2021.
- Huergo Lora A., *Administraciones públicas e inteligencia artificial: ¿más o menos discrecionalidad?*, in *El Cronista del Estado social y democrático de Derecho*, no. 96-97, 2022, 78-95.
- Innerarity D., *El impacto de la inteligencia artificial en la democracia*, in *Revista de las Cortes Generales*, vol. 109, second semester 2020, 90 ff.
- Ireni-Saban L. and Sherman M., *Ethical Governance of Artificial Intelligence in the Public Sector*, Routledge, Londres, 2021.
- Jacob S. and Souissi S., *L'intelligence artificielle dans l'administration publique au Québec*, in *Cahiers de recherche sur l'administration publique à l'ère numérique*, no. 5, Québec, 2022.
- Jacqué J.-P., *Le droit à une bonne administration dans la charte des droits fondamentaux de l'Union européenne*, in *Revue Française d'Administration Publique*, no. 137-138, 2011, 79-83.
- Jacquemin H. and de Streel A., *L'intelligence artificielle et le droit*, Larcier, Brussels, 2017.
- Janssen M., Hartog M., Matheus R., Yi Ding A., and Kuk G., *Will Algorithms Blind People? The Effect of Explainable AI and Decision-*

- Makers' Experience on AI-supported Decision-Making in Government*, in *Social Science Computer Review*, vol. 40, Issue 2, 2022, 478–493.
- Jiménez-Gómez C. E. and Cano Carrillo J., *Essential elements and ethical principles for trustworthy artificial intelligence adoption in courts*, in *Trends in State Courts*, 2022.
- Karke J., *Co-creating Digital Public Services for an Ageing Society. Evidence for User-centric Design*, Springer, Bremen, 2021.
- Kiendl Krišto I. and Poutouroudi V., *Review Clauses in EU Legislation. A Rolling Check-List*, European Parliamentary Research Service, Brussels, 2018.
- Kleinberg J., Ludwig J., Mullainathan S. and Sunstein C. R., *Discrimination in the age of algorithms*, in SSRN, February 5, 2019.
- Kochenderfer M. J., Wheeler T. A. and Wray K. H., *Algorithms for Decision Making*, The MIT Press, Cambridge, 2022.
- Kore A., *Designing Human-Centric AI Experiences. Applied UX Design for Artificial Intelligence*, Apress, 2022.
- Koubi G., *Les mots de la modernisation des relations administratives*, in *Revue Française d'Administration Publique*, no. 146, 2013, 339-350.
- Krimmer R., Prentza A. and Mamrot S. (eds.), *The Once-Only Principle*, Springer, Switzerland, 2021.
- Labelle S. and Chevret-Castellani C., *Réguler les algorithmes et l'intelligence artificielle par le droit souple, entre expression et neutralisation des points de vue*, in G. Julia (ed.), *Colloque Sciences et sens de l'intelligence artificielle*, Dalloz, Paris, 2020.
- Lacroix-de Sousa S., Larrieu P. and Mestre J. (eds.), *Cerveau(x) et Droit. Neurodroit, algorithmes, intelligence artificielle, objets connectés, centres de décision*, LGDJ, Paris, 2022.
- Lanna M., *La protection des données à caractère personnel à l'épreuve de l'automatisme connecté*, Thèse, Droit Public, Université Paris II-Panthéon-Assas, 2019.
- Lasarre B., *Discours d'ouverture : L'évaluation des politiques publiques : quels enjeux aujourd'hui ?*, Mercredi 16 octobre 2019, held at the *Conseil d'État* (Salle d'assemblée générale Place du Palais-Royal Paris 1er).
- Laszlo E., *La gran bifurcación: crisis y oportunidad; anticipación del nuevo paradigma que está tomando forma*, Gedisa, 1990.

- Leavy S., *Gender Bias in Artificial Intelligence: The Need for Diversity and Gender Theory in Machine Learning*, in *GE '18: Proceedings of the 1st International Workshop on Gender Equality in Software Engineering*, Gothenburg, Sweden, May 2018, 14-16.
- Lequesne-Roth C., *La lutte contre la fraude à l'ère digitale*, in *Revue de droit fiscal*, no. 5, 4 February 2021.
- Leslie D., Burr C., Aitken M., Cows J., Katell M., and Briggs M., *Artificial intelligence, human rights, democracy, and the rule of law: a primer*, The Council of Europe, 2021.
- Littman M. L., et al., *Gathering Strength, Gathering Storms: The One Hundred Year Study on Artificial Intelligence (AI100) 2021 Study Panel Report*, Stanford University, Stanford, CA, 2021.
- Longo Martínez F., *La Administración Pública en la era del cambio exponencial. Hacia una gobernanza exploratoria*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, no. special 3, 52-73.
- López López P. and Samek T., *Inclusión digital: un nuevo derecho humano*, in *Educación y Biblioteca*, no. 172, 2009, 114-118.
- Masucci A., *L'atto amministrativo informatico. Primi lineamenti di una ricostruzione*, Jovene, Naples, 1993.
- Masucci A., *Digitalizzazione dell'amministrazione e servizi pubblici on line. Lineamenti del disegno normativo*, in *Diritto Pubblico*, fasc. 1, 2019, 117-151.
- Mantelero A., *Ciudadanía y gobernanza digital entre política, ética y derecho*, in de la Quadra-Salcedo T. and Piñar Mañas J. L. (dirs.), Barrio Andrés M. and Toirregrosa Vázquez J. (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 160 ff.
- Mantelero A., *Beyond Data. Human rights, Ethical and Social Impact Assesment in AI*, Springer, Berlin, 2022.
- Manzoni M., Medaglia R., Tangi L., Van Noordt C., Vaccari L. and Gattwinkel D., *AI Watch Road to the Adoption of Artificial Intelligence by the Public Sector. A Handbook for Policymakers, Public Administrations and Relevant Stakeholders*, Publications Office of the European Union, Luxembourg, 2022.
- Marcucci S., González Alarcón N., Verhulst S. G. and Wullhorst E., *Mapping and Comparing Data Governance Frameworks: A benchmarking*

- exercise to inform global data governance deliberations*, in *arXiv:2302.13731*, February 2023.
- Marongiu D., *L'intelligenza artificiale "istituzionale": limitè (attuali) e potenzialità*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 37-53.
- Martín Delgado I., *Naturaleza, concepto y régimen jurídico de la actuación administrativa automatizada*, in *Revista de Administración Pública*, no. 180, 2009, 353-386.
- Martín Delgado I., *El acceso electrónico a los servicios públicos: hacia un modelo de administración digital auténticamente innovador*, in *Sociedad digital y Derecho*, De La Quadra-Salcedo T. and Piñar Mañas J. L. (dirs.), Barrio Andrés M. and Toirregrosa Vázquez J. (coords.), BOE, Madrid, 2018, 180 ff.
- Martín Delgado I., *El procedimiento administrativo y el régimen jurídico de la Administración Pública desde la perspectiva de la innovación tecnológica*, Iustel, Madrid, 2020.
- Martín Delgado I., *Automation, Artificial Intelligence and sound administration. A few insights in the light of the Spanish legal system*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Martín Delgado I. (dir.), *La reforma de la Administración electrónica: una oportunidad para la innovación desde el Derecho*, INAP, Madrid, 2017.
- Martínez Gutiérrez R., *Servicio público electrónico y responsabilidad*, in *Revista Española de Derecho Administrativo*, no. 155, 2012, 291-318.
- Martínez Gutiérrez R., *Datos abiertos, IA y subvenciones: proactividad y control*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023.
- Martínez Martínez R., *Inteligencia artificial desde el diseño. Retos y estrategias para el cumplimiento normativo*, in *Revista Catalana de Dret Públic*, no. 58, 2019, 64-81.
- Masi I., *L'intelligenza artificiale al servizio della pubblica amministrazione 2.0*, in *Diritto & Diritti*, 2017.
- Masucci A., *L'atto amministrativo informatico. Primi lineamenti di una ricostruzione*, Jovene, Naples, 1993.

- Maxwell J. and Tomlinson J., *Experiments in automating immigrations systems*, Bristol University Press, Bristol, 2022.
- Mcbride Gonzáles D., Stephen Junior Valencia Navarro P. and Elcina Mejia Lozano L., *La Nueva Gobernanza Pública ¿una nueva manera de gestionar lo público en el siglo XXI?*, in *III Congreso Internacional de Ciencias de la Gestión*, PUCP, Perú, 25, 26 and 27 September 2019.
- Medaglia R., Gil-Garcia J. R. and Pardo T. A., *Artificial Intelligence in Government: Taking Stock and Moving Forward*, in *Social Science Computer Review*, 2021.
- Medaglia R. and Zhu D., *Public deliberation on government-managed social media: A study on Weibo users in China*, in *Government Information Quarterly*, vol. 34, Issue 3, 2017, 533–544.
- Medina Guerrero M., *El derecho a conocer los algoritmos utilizados en la toma de decisiones. Aproximación desde la perspectiva del derecho fundamental a la protección de datos*, in *Teoría y Realidad Constitucional*, no. 49, 2022, 141-171.
- Mendoza-Caminade A., *Le droit confronté à l'intelligence artificielle des robots : vers l'émergence de nouveaux concepts juridiques ?*, in *L'intelligence artificielle*, Dalloz, Paris, 2019.
- Meneceur Y., *L'intelligence artificielle en procès. Plaidoyer pour une réglementation internationale et européenne*, Bruylant, Brussels, 2020.
- Menéndez Sebastián E. M., *La Administración al servicio de la justicia social*, Iustel, Madrid, 2016.
- Menéndez Sebastián E. M., *Las garantías del interesado en el procedimiento administrativo electrónico: luces y sombras de las nuevas Leyes 39 y 40/2015*, Tirant lo Blanch, Valencia, 2017.
- Menéndez Sebastián E. M., *La validez del acto administrativo electrónico*, in *Libro homenaje al Prof. A. Menéndez Rexach*, Thomson Reuters, Cizur Menor, 2018.
- Menéndez Sebastián E. M., *La apuesta europea por una buena administración: implicaciones y estado de la cuestión*, in Andrés Saénz De Santa María M. P. (dir.), *Una contribución a la europeización de la ciencia jurídica: Estudios sobre la Unión Europea*, Thomson Reuters-Civitas, Navarra, 2019, 613-629.
- Menéndez Sebastián E. M., *La buena administración en la gestión de los*

- servicios públicos*, in L. Tolivar Alas and M. Cueto Pérez (coord.), *La prestación de servicios socio-sanitarios: Nuevo marco de la contratación pública*, Tirant lo Blanch, Valencia, 2020, 171-200.
- Menéndez Sebastián E. M., *De la función consultiva clásica a la buena administración. Evolución en el Estado social y democrático de Derecho*, Marcial Pons, Madrid, 2021.
- Menéndez Sebastián E. M., *Función consultiva y tutela administrativa efectiva: procedimiento administrativo y buena administración*, in *Revista Española de la Función Consultiva*, no. 32, 2021, 105-126.
- Menéndez Sebastián E. M., *L'intelligenza artificiale nel settore pubblico: sulla perenne ricerca di un equilibrio tra efficienza e garanzie*, *CERIDAP*, no. 2, 2023.
- Menéndez Sebastián E. M. and Ballina Díaz J., *Digital citizenship: fighting the digital divide*, in *European Review of Digital Administration & Law*, vol. 2, Issue 1, 2021, 149-155.
- Menéndez Sebastián E. M. and Ballina Díaz J., *¿Qué es la ciudadanía hoy?*, in Alonso R. (dir.) and Beatriz. (coord.), *Objetivos de desarrollo sostenible*, Thomson Reuters, Navarra, 2022, 341-365.
- Menéndez Sebastián E. M. and Ballina Díaz J., *Sostenibilidad social y ciudadanía administrativa digital*, Reus, Madrid, 2022.
- Menéndez Sebastián E. M. and Mattos Castañeda B. M., *Better decision-making, algorithmic discrimination and gender biases: a new challenge for the administration of the 21st Century*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Merli F., *Automated Decision-Making Systems in Austrian Administrative Law*, in *CERIDAP*, 30 January 2023.
- Miccú R., *Questioni attuali intorno alla digitalizzazione dei servizi sanitari nella prospettiva multilivello*, in *federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo*, no. 5, 2021, 1-14.
- Michetti E., *La teoria della legittimità nella burocrazia artificiale: la nuova frontiera della "digitalizzazione giuridica"*, in *Gazzetta Amministrativa*, no. 1, 2016, 5-24.
- Milkes Sánchez I., *Buena administración y la motivación de los actos administrativos expedidos en ejercicio de facultades discrecionales*, in *Revista Digital de Derecho Administrativo*, no. 21, 2019, 153-178.

- Misuraca G. and van Noordt C., *Overview of the use and impact of AI in public services in the EU*, EUR 30255 EN, Publications Office of the European Union, Luxembourg, 2020.
- Mockle D., *La gouvernance publique*, LGDJ, Paris, 2022.
- Moritz M., *Le développement des services publics dématérialisés en France. Entre faisabilité juridique et blocages institutionnels*, in I. Bouhadana, *Le droit de l'administration numérique en Russie et en France : Regards croisés*, Éditions KAH H, Moscow.
- Mossberger K., Tolbert C. J. and McNeal R. S., *Digital Citizenship. The Internet, Society and participation*, The MIT Press, Massachusetts Institute of Technology, 2008.
- Motzfeldt H. M., *Reflections on the need for further research within national administrative law before the EU Artificial Intelligence Act comes into effect: A Danish perspective*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Muciaccia N., *Algoritmi e procedimento decisionale: alcuni recenti arresti della giustizia amministrativa*, in *federalismi.it*, no. 10/2020, 344-368.
- Napoli C., *Algoritmi, intelligenza artificiale e formazione della volontà pubblica: la decisione amministrativa e quella giudiziaria*, in *Rivista AIC*, no. 3, 2020, 318-354.
- National Institute of Standards and Technology, *Artificial Intelligence Risk Management Framework (AI RMF 1.0)*, NIST, January 2023.
- Nassuato F., *Legalità algoritmica nell'azione amministrativa e regime dei vizi procedurali*, in *CERIDAP*, special no. 1, 2022, 150-202.
- Nay J. and Daily J., *Aligning Artificial Intelligence with Humans through Public Policy*, May 4, 2022.
- Nieto A., *La "nueva" organización del desgobierno*, 3rd ed., Ariel, Barcelona, 2003.
- Nyman Metcalf K., *e-Governance and Good Administration: Examples from Estonia*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Nogueira López A., *Vulnerabilidad administrativa. Los obstáculos administrativos en el acceso a los programas de vivienda*, in N. Paleo Mosquera (ed.), *Políticas y derecho a la vivienda: gente sin casa y casas sin gente*, Tirant lo Blanch, Valencia, 2020.

- Nogueira López A., *¿El fin justifica los medios? Subvenciones y protección de personas vulnerables*, communication presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023.
- OECD, *Artificial Intelligence in Society*, OECD Publishing, 2019.
- OECD, *Declaration on a Trusted, Sustainable and Inclusive Digital Future*, OECD/LEGAL/0488, 2022.
- OECD, *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449, 2022.
- OECD, *Putting people first in digital transformation: Background paper for the CDEP Ministerial meeting*, no. 339, 2022.
- OECD, *Aprovechando el poder de la IA y las tecnologías emergentes: Documento de referencia para la Conferencia ministerial del CDEP*, no. 340, 2022.
- Olarte Encabo S., *Brecha digital, pobreza y exclusión social*, in *Temas Laborales*, no. 138, 2017, 285-313.
- OPSI, *Good Practice Principles for Ethical Behavioural Science in Public Policy*, OECD, 2022.
- Orofino A. G., *La patologia dell'atto amministrativo elettronico: sindacato giurisdizionale e strumenti di tutela*, in *Foro amministrativo C.d.S.*, 2002, 2256-2281.
- Orofino A. G., *Automazione amministrativa: imputazione e responsabilità*, in *Giornale di diritto amministrativo*, vol. 11, 2005, 1300-1312.
- Orofino A. G., *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, Cacucci, Bari, 2020.
- Orofino A. G., *The Implementation of the Transparency Principle in the Development of Electronic Administration*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 123-142.
- Orofino A. G. and Gallone G., *L'intelligenza artificiale al servizio delle funzioni amministrative: profili problematici e spunti di riflessione*, in *Giurisprudenza Italiana*, no. 7, 2020, 1738-1748.
- Orofino A. G. and Orofino R. G., *Automazione amministrativa: imputazione e responsabilità*, in *Giornale di diritto amministrativo*, 2005, 1300-1312.
- Osborne D. and Plastrik P., *Herramientas para transformar el Gobierno. Directrices prácticas, lecciones y recursos para revitalizar las escuelas*, los

- servicios públicos y los organismos gubernamentales de todos los niveles*, Paidós, Barcelona, 2003.
- Oswald M., Chambers L., Goodman E. P., Ugwuodike P. and Zilka M., *The UK Algorithmic Transparency Standard: A Qualitative Analysis of Police Perspectives*, 7 July 2022.
- Otterbacher J., Bates J. and Clough P.D., *Competent Men and Warm Women: Gender Stereotypes and Backlash in Image Search Results*, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, Colorado Convention Center, Denver, CO. Association for Computing Machinery, 2017, 6620-6631.
- Padilla Ruíz P., *Inteligencia artificial y Administración Pública. Posibilidades y aplicación de modelos básicos en el procedimiento administrativo*, in *El Consultor de los Ayuntamientos*, vol. 10, 2019, 96-104.
- Palma Ortigosa A., *Decisiones automatizadas en el RGPD. El uso de algoritmos en el contexto de la protección de datos*, in *Revista General de Derecho Administrativo*, no. 50, 2019.
- Paltieli G., *The political imaginary of National AI Strategies*, in *AI & Society*, 37, 2022, 1613-1624.
- Patiño Ávila J. S. and Guevara Zapata H. E., *Los actos administrativos unilaterales algorítmicos: una conceptualización necesaria para tiempos modernos*, in *Revista Academia & Derecho*, vol. 11, Issue 21, 2020, 155-188.
- Peet E. D., Vegetabile B. G., Cefalu M., Pane J. D. and Damberg C. L., *Machine Learning in Public Policy. The Perils and the Promise of Interpretability*, RAND Corporation, Santa Monica, November 2022.
- Pégny M. and Ibnouhsei I., *Quelle transparence pour les algorithmes d'apprentissage machine ?*, 2018.
- Perez S., *Secrets, transparence et corruption des administrations : Rapport Union européenne*, in *Annuaire européen d'administration publique*, Aix-en-Provence, Presses universitaires d'Aix-Marseille, 2014, 345-374.
- Perrino P. E., *El derecho a la tutela administrativa efectiva*, in *El Derecho administrativo hoy: 16 años después*, Ediciones Rap, Caba, Argentina, 2013.

- Perroud T., *Droits des administrés internautes et téléservices publics*, in *Revue Française d'Administration Publique*, no. 146, 2013, 419-431.
- Pinazo Hernandis F. J., *Ciencia, burocracia y democracia en las políticas públicas: factores actuales para el análisis y evaluación*, in *Revista de Evaluación de Programas y Políticas Públicas*, UNED, no. 7, 2016, 64-95.
- Pinel F., *La participation du citoyen à la décision administrative*, Thèse, Droit, Université Rennes 1, 2018.
- Pinotti G., *Amministrazione digitale algoritmica e garanzie procedurali*, in *Labour & Law Issues*, vol. 7, Issue 1, 2021, 1.77-1.95.
- Piselli P., *Algoritmi, automazione e pubblica amministrazione: gli orientamenti della giurisprudenza e le prospettive di implementazione*, in *TEME*, 2020.
- Plohmann M., *Das Recht auf eine gute Verwaltung gemäß Art. 41 der Charta der Grundrechte der Europäischen Union*, in *Walter Hallstein-Institut für Europäisches Verfassungsrecht, Humboldt-Universität zu Berlin*, 2014.
- Ponce Solé J., *Deber de buena administración y derecho al procedimiento administrativo debido. Las bases constitucionales del procedimiento administrativo y del ejercicio de la discrecionalidad*, Lex Nova, Valladolid, 2001.
- Ponce Solé J., *Nudging, simplificación procedimental y buen gobierno regulatorio: el Derecho Administrativo del Siglo XXI y sus relaciones con las ciencias sociales*, in M. Miguez Macho, M. Almeida Cerredá and D. Santiago Iglesias (coords.), *La simplificación de los procedimientos administrativos. Actas del IX Congreso de la Asociación Española de Profesores de Derecho Administrativo*, Escola Galega de Administración Pública, 2014, 191-216.
- Ponce Solé J., *La discrecionalidad no puede ser arbitrariedad y debe ser buena administración*, in *Revista Española de Derecho Administrativo*, no. 175, 2016, 57-84.
- Ponce Solé J., *Remunicipalización y privatización de los servicios públicos y derecho a una buena administración. Análisis teórico y jurisprudencial del rescate de concesiones*, in *Cuadernos de Derecho Local*, Fundación Democracia y Gobierno Local, February 2016.
- Ponce Solé J., *Inteligencia artificial, Derecho administrativo y reserva de humanidad: algoritmos y procedimiento administrativo debido tecnológico*, in *Revista General de Derecho Administrativo*, no. 50, 2019.

- Ponce Solé J., *La lucha por el buen gobierno y el derecho a una buena administración mediante el estándar jurídico de diligencia debida*, Cuadernos de la Cátedra de Democracia y Derechos Humanos, Madrid, 2019.
- Ponce Solé J., *Law, Digital Nudging and Manipulation: Dark Patterns, Artificial Intelligence and the Right to Good Administration*, in *European Review of Digital Administration & Law*, vol. 3, Issue 1, 2022.
- Ponce Solé J. (ed.), *Nudging's Contributions to Good Governance and Good Administration – Legal Nudges in Public and Private Sectors*, EPLO, Athens, 2022.
- Ponce Solé J. and Villoria Mendieta M. (eds.), *Anuario del Buen Gobierno y de la Calidad de la Regulación 2019, La calidad normativa a diez años de los efectos vinculantes de la Carta de Derechos Fundamentales de la Unión Europea y de la transposición de la Directiva de Servicios y a cinco años de aplicación de la Ley de Garantía de la Unidad de Mercado*, Fundación Democracia y Gobierno Local, Madrid, 2020.
- Presno Linera M. A., *Teoría general de los derechos fundamentales e inteligencia artificial: una aproximación*, in *Revista Jurídica de Asturias*, no. 45, 2022, 55-83.
- Presno Linera M. A., *Derechos fundamentales e inteligencia artificial*, Marcial Pons, Madrid, 2022.
- Rainie L. and Anderson J., *The need grows for algorithmic literacy, transparency and oversight*, in *Pew Research Center, Internet & Technology*, February 8, 2017.
- Ranchordas S., *Automation of Public Services and Digital Exclusion*, in *I-CONnect Blog of the International Journal of Constitutional Law*, March 11 2020.
- Ramió C., *Inteligencia artificial y administración pública: Robots y humanos compartiendo el servicio público*, Catarata, Madrid, 2019.
- Ramos Ramos B. and Sánchez Naranjo C., *La planificación estratégica como método de gestión pública: experiencias en la Administración española*, INAP, Madrid, 2013.
- Razquín Lizarraga M., *Transparencia e inteligencia artificial en las subvenciones*, in A. Cerrillo i Martínez and C. I. Velasco Rico, *Una persona como usted ha recibido esta subvención*, communication

- presented at the XVI Congress of the Spanish *Asociación Española de Profesores de Derecho Administrativo* (AEPDA), held in Seville in January 2023.
- Rebollo Puig M., *Capítulo X. El reintegro de subvenciones*, in *Comentario a la Ley General de Subvenciones*, Madrid, Thomson-Civitas, 2005, 407-527.
- Ribes Ribes A., *La posición del contribuyente ante los Sistemas de Inteligencia Artificial utilizados por la Administración*, in *Quincena fiscal*, no. 18, 2021, 27-52.
- Rivas Vallejo P., *Discriminación algorítmica: detección, prevención y tutela*, in *XXXI Jornades Catalanes de Dret Social (Trellat, discriminación i Covid)*, Barcelona, April 2021, 11-13.
- Rodotà S., *Diritto, scienza, tecnologia: modelli e scelte di regolamentazione*, conferencia impartida en el Congreso *Scienza e diritto nel prisma del diritto comparato*, Giapichelli, Turin, 2004, 397-412.
- Rodotà S., *Del ser humano al posthumano*, in De La Quadra-Salcedo T. and Piñar Mañas J. L. (dirs.), Barrio Andrés M. and Toirregrosa Vázquez J. (coords.), *Sociedad digital y Derecho*, BOE, Madrid, 2018, 87-93.
- Rodríguez De Santiago J. M., *Normas de conducta y normas de control. Un estudio metodológico sobre la discrecionalidad planificadora, la ponderación y su control judicial*, in *InDret*, January 2015.
- Rodríguez De Santiago J. M., *Metodología del Derecho administrativo. Reglas de racionalidad para la adopción y el control de la decisión administrativa*, Marcial Pons, Madrid, 2016.
- Rodríguez Peña N. L., *La administración tributaria ante la inteligencia artificial: interrogantes jurídicos y éticos de su utilización contra el fraude fiscal*, in *Nueva Fiscalidad*, no. 3, 2021, 173-197.
- Rodríguez Peña N. L., *Big data e inteligencia artificial: una aproximación a los desafíos éticos y jurídicos de su implementación en las administraciones tributarias*, in *Ius et Scientia*, vol. 7, no. 1, 2021.
- Saka E., *Big Data and Gender-Biased Algorithms*, in K. Ross (ed.), *The International Encyclopedia of Gender, Media, and Communication*, John Wiley & Sons, New York, 2020.
- Samoili S., Lopez C. M., Gomez Gutierrez E., De Prato G., Martinez-

- Plumed F. and Delipetrev B., *AI Watch—Defining artificial intelligence: Towards an operational definition and taxonomy of artificial intelligence*, Publications Office of the European Union, Luxembourg, 2020.
- Sánchez Morón M., *Derecho Administrativo. Parte General*, Madrid, Tecnos, 2020.
- Sandulli M. A. and Aperio Bella F. (dirs.), *Challenges for Public Law. Research group of the Interdisciplinary Research Centre on Health Law – CeSDirSan. Report of the research presented by the research group during the International Conference ICON•S MUNDO (July 2021)*, in *federalismi.it Rivista di Diritto Pubblico Italiano, Comparato, Europeo*, no. 17, November 2021.
- Sarasíbar Iriarte M., *La Cuarta Revolución Industrial: el Derecho Administrativo ante la inteligencia artificial*, in *Revista Vasca de Administración Pública*, no. 115, 2019, 377-401.
- Schnapper D., *Quést-ce que la citoyenneté ?*, Folio actuel, vol. 75, Gallimard, Paris, 2000.
- Schnapper D., *La citoyenneté à l'épreuve. La démocratie et les juifs*, Collection NRF Essais, Gallimard, Paris, 2018.
- Schwartz R., Dodge J., Smith N. A. and Etzioni O., *Green AI*, 2019, *ArXiv:1907.10597 [Cs, Stat]*.
- Serrano Antón F. (dir.), *Inteligencia artificial y administración tributaria: eficiencia administrativa y defensa de los derechos de los contribuyentes*, Thomson Reuters, Cizur Menor, 2021.
- Simón Castellano P., *Inteligencia artificial y Administración de Justicia. ¿Quo vadis, Justitia?*, in *Revista de Internet, Derecho y Política*, no. 33, 2021, 1-15.
- Simon H. A., *Administrative behavior: a study of decision making processes in administrative organizations*, 2nd ed., The Free Press, New York, 1957.
- Solove D. J., *Data Is What Data Does: Regulating Use, Harm, and Risk Instead of Sensitive Data*, GW Law, 2023.
- Soriano Arnanz A., *Posibilidades actuales y futuras para la regulación de la discriminación producida por algoritmos*, Universidad de Valencia, 2020.
- Soto Bernabeu L., *La importancia de la transparencia algorítmica en el uso de*

- la inteligencia artificial por la Administración tributaria*, in *Crónica Tributaria*, no. 179, 93-129.
- Spampinato B., *Per un primo inquadramento teorico della decisione amministrativa algoritmica*, in *Rivista Giuridica AmbienteDiritto.it*, fasc. 3/2021.
- Straub V. J., Morgan D., Bright J., and Margetts H., *Artificial intelligence in government: Concepts, standards, and a unified framework*, in *Cornell University*, arXiv:2210.17218.
- Sunstein C. R., *Algorithms, Correcting Biases*, in *An International Quarterly*, vol. 86, Number 2, Summer 2019, 499-511.
- Taruffo M., *La prueba de los hechos*, Trotta, Madrid, 2011.
- Tejedor Bielsa J. C., *Transformación digital, "blockchain" e inteligencia artificial en la administración pública*, in *Revista Española de Derecho Administrativo*, no. 209, 2020, 111-138.
- Tejedor Bielsa J. C., *Transformación digital, blockchain e inteligencia artificial. Referencias y experiencias en Aragón*, in *European Review of Digital Administration & Law*, vol. 2, Issue 2, 2021, 59-74.
- Testard C., *Pouvoir de décision unilatérale de l'administration et démocratie administrative*, LGDJ, coll. Bibliothèque de droit public, vol. 304, Paris, 2018.
- Tolan S., Pesole A., Martínez-Plumed F., Fernández-Macías E., Hernández-Orallo J. and Gómez E., *Medición del impacto ocupacional de la IA: tareas, habilidades cognitivas y puntos de referencia de la IA*, in *Revista de Investigación de Inteligencia Artificial*, no. 71, 2021, 191-236.
- Tomás Mallén B., *El derecho fundamental a una buena administración*, INAP, Madrid, 2004.
- Tomlison J., *Justice in the Digital State. Assessing the Next Revolution in Administrative Justice*, Bristol, Policy Press, 2019.
- Tornos Más J., *Las cartas de servicios*, in *QDL*, Fundación Democracia y Gobierno Local, 10 February 2006, 72-82.
- Tornos Más J., *El derecho a una buena administración*, Sindicatura de Greuges de Barcelona, Barcelona, 2007.
- Tournepiche A.-M., *Vers de nouveaux champs d'application pour la*

- transparence administrative en droit communautaire*, in *Cahiers de droit européen- CDE*, Larcier, Brussels, 2007, 623 ff.
- Valero Torrijos J., *Las garantías jurídicas de la inteligencia artificial en la actividad administrativa desde la perspectiva de la buena administración*, in *Revista catalana de dret públic*, no. 58, 2019, 82-96.
- Valero Torrijos J., *The Legal Guarantees of Artificial Intelligence in Administrative Activity: Reflections and Contributions from the Viewpoint of Spanish Administrative Law and Good Administration Requirements*, in *European Review of Digital Administration & Law*, vol. 1, Issue 1-2, 2020, 55-61.
- Van Ooijen C., Osimo D., Regeczi D., Simperl E., Lincklaen Arriëns E., Holl H., Dogger J., van Knippenberg L., ter Horst M. and Corcho O., *Sofie Finn Storan, Rethinking the impact of open data. Towards a European impact assessment for open data*, data.europa.eu, Luxembourg, 2023.
- Vandamme C., *Le repérage de la fraude fiscale grâce au data mining*, in *Gestion & Finances publiques*, no. 11-12, 2014, 42-45.
- Veale M. et al., *Fairness and Accountability Design Needs for Algorithmic Support in High Stakes Public Sector Decision-Making*, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 2018.
- Vese D., *L'efficienza dell'organizzazione amministrativa come massimizzazione dei diritti fondamentali*, in *P.A. Persona e Amministrazione*, no. 1, 2019, 279-363.
- Vestri G., *La inteligencia artificial ante el desafío de la transparencia algorítmica. Una aproximación desde la perspectiva jurídico-administrativa*, in *Revista Aragonesa de Administración Pública*, no. 56, 2021, 368-398.
- Villani C., Schoenauer M., Bonnet Y., Charly B., Cornut A.-C., Levin F. and Rondepierre B., *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne*, France, 2018.
- Villodre J., *Innovación pública abierta*, in *Economía. Revista en Cultura de la Legalidad*, no. 17, 2019, 314-327.
- von Lücke J., *Digitalisierung von Staat und Verwaltung: Leitbilder, Erfolge und Defizitanalyse im Kontext der Corona-Pandemie*, in *CERIDAP*, special no. 1, 2022, 69-108.
- VV. AA., *La comunicazione pubblica in Europa*, Franco Angeli, 1999.

- VV. AA, *L'intérêt général. Mélanges en l'honneur de Didier Truchet*, Dalloz, Paris, 2015.
- VV.AA., *Configuración legal, actuación y funciones de las autoridades de transparencia: algunas propuestas de mejora*, Fundación democracia y Gobierno Local, Barcelona, 2019.
- VV. AA., *Transformación digital y empleo público*, BID, Washington, 2020.
- VV. AA., *L'action publique et le numérique*, Société de législation comparée, Paris, 2021.
- Wang T., Zhao J., Yatskar M., Chang K-W and Ordonez V., *Balanced Datasets Are Not Enough: Estimating and Mitigating Gender Bias in Deep Image Representations*, in *arXiv:1811.08489*, 2019.
- Wenzelburger G., König P. D., Felfeli J. and Achtziger A., *Algorithms in the Public Sector. Why context matters*, in *Public Administration*, 14 November 2022, 1-39.
- Wirtz B. W., *Digital Government. Strategy, Government Models and Technology*, Springer, Cham, 2022.
- Wojcik S., *Prendre la démocratie électronique au sérieux : De quelques enjeux et controverses sur la participation politique en ligne*, in *La démocratie électronique*, November 2009, Besançon, France.
- Zambonino Pulito M., *Buen Gobierno y buena administración: cuestiones claves*, Iustel, Madrid, 2019.
- Zellenberg U. E., *Das Recht auf eine gute Verwaltung*, in Grabenwarter C., Pöcherstorfer W. and Rosenmayr-Klemenz C. (eds.) *Die Grundrechte des Wirtschaftslebens nach dem Vertrag von Lissabon*, Jan Sramek Verlag, KG, Viena, 2012.
- Ziller J., *Les fondements de l'obligation de motiver en droit de l'Union européenne : un retour aux sources*, in *Cahiers de la recherche sur les droits fondamentaux*, no. 17, 2019, 45-53.
- Zhou P., Shi W., Zhao J., Huang K-H., Chen M., Cotterell R., Chang K-W., *Examining Gender Bias in Languages with Grammatical Gender*, in *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing*, Hong Kong, China, Association for Computational Linguistics, 2019, 5276–5284.

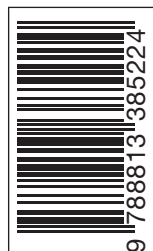
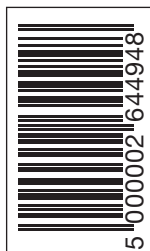
PUBLIC ADMINISTRATION AT THE BOUNDARIES
Studies and Perspectives on an Evolving Public Law

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FROM BUREAUCRACY TO ARTIFICIAL INTELLIGENCE

Public administration is immersed in a major technological disruption that raises interesting questions and legal debates. The use of artificial intelligence is undoubtedly one of them. However, this phenomenon must be analysed in the context of the general transformation that the public sector is undergoing, the so-called “public governance”, with all that this implies, in short, a new relationship between citizens and public authorities, which marks the scenario in which the current Administration must act. Bearing in mind that the very essence of administrative law hinges on a constant duality, this paper analyses the use of artificial intelligence in the public sector, seeking the eternal balance between efficiency and guarantees.

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