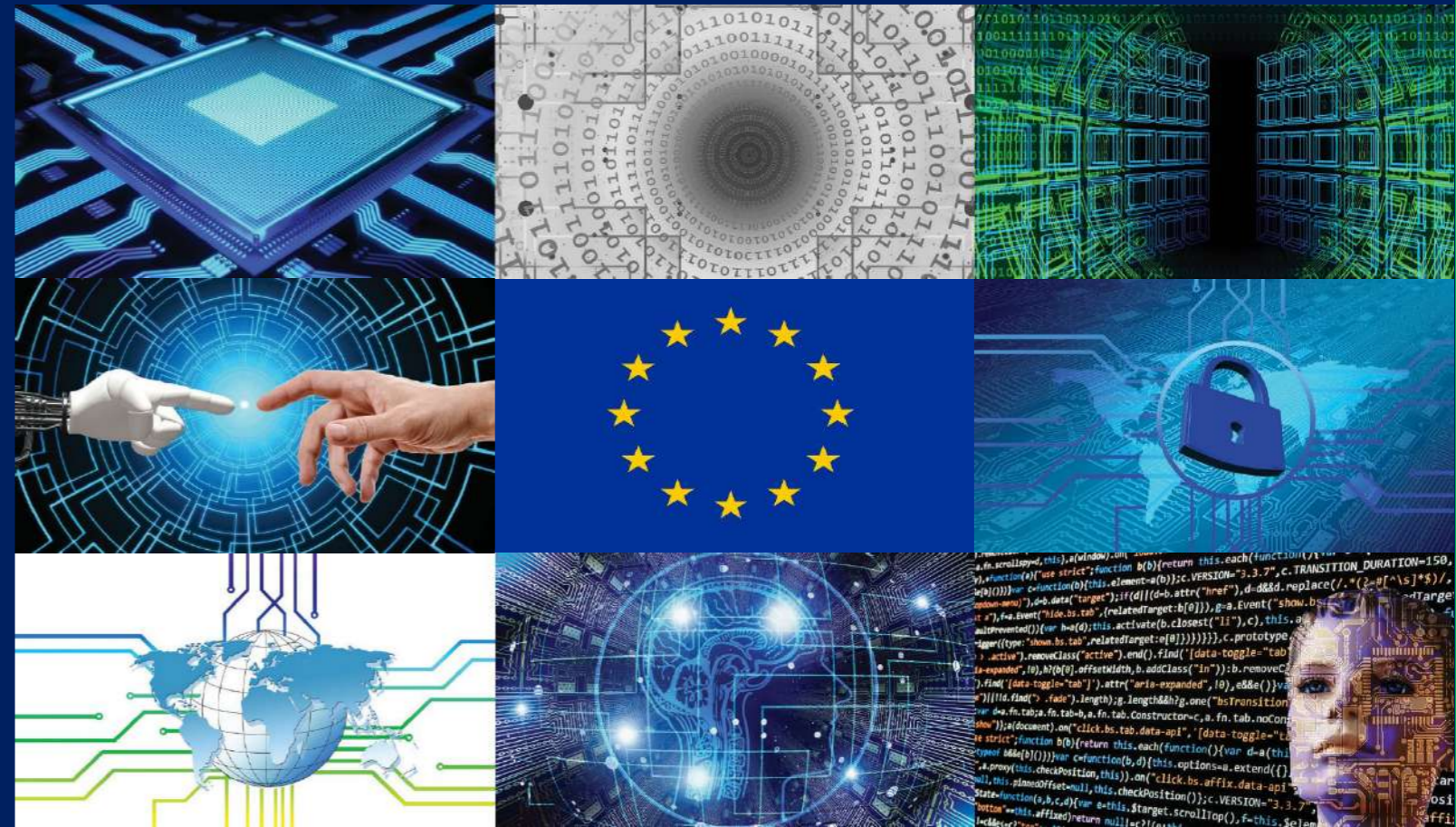# European Review of Digital Administration & Law

The Use of Artificial Intelligence by Public Administration

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Monographic Section: *The Use of Artificial Intelligence by Public Administration*
(eds. Antonio Barone, Angelo Giuseppe Orofino, Julián Valero Torrijos)

*Access to Source Code of Proprietary Software Used by Public Administrations for Automated Decision-making. What Proportional Balancing of Interests?**

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ABSTRACT   The present work aims to identify the best solution as to how to implement the principle of transparency and carry out the correct proportional balancing of interests in the event of the public administration using proprietarysoftware for automated decision-making in the matter of administrative procedures. A special focus is given to whether the disclosure obligation of the source code is compatible with intellectual property rights to the software, where these rights have been retained by the private contractor.

1. *The problem and the path toward a solution*

Some perplexities arise from relatively recent jurisprudential decisions of the Italian administrative courts which enshrine the right to access source codes of the programmes used in the matter of administrative procedures based on algorithmic decisions, even when the software is a proprietary-type software and has been purchased by the public administration without obtaining the ownership of intellectual property rights to it[1].

Some of these jurisprudential decisions are based on the assumption that the source code ought to be considered an "administrative act" or "administrative document", with respect to which the right to access ought to be granted in accordance with Law No. 241 of 1990, without any prejudice caused by any permanence of intellectual property rights to the software belonging to the private contractor[2]; others insist upon the more general issue of the transparency of administrative action, which would entail the need to give up the prerogatives of the private contractor (regardless of the qualification of the source code as an administrative act)[3].

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* Article submitted to double-blind peer review.

[1] Consider, for example, the following judgments: (a) Tar [i.e. Italian Regional Administrative Court] Lazio, Roma, section III *bis*, judgment 6 June 2019 No. 733, later rectified, with deferral, by the Cons. Stato, section VI, 2 January 2020 No. 30 (on the right to access the source code of the software used to carry out the written test of the national course-selection procedure for the recruitment of school directors, where the right to integrate a cross-examiner for the other party, CINECA, the owner of the intellectual property rights to the software was recognized), followed, recently, by Tar Lazio, Roma, section III *bis*, judgment 22 June 2020 No. 7526; (b) Tar Lazio, Roma, section III *bis*, judgment 22 March 2017 No. 3769 of 2017 in *Giornale di diritto amministrativo*, 2018, 647, with a note by I. Forgione, *Il caso dell'accesso al software MIUR per l'assegnazione dei docenti,* and Tar Lazio, Roma, Section III *bis*, judgment 21 March 2017 No. 3742, in *Foro amministrativo*, 2017, 741 (on the right to access the source code of the software used to manage interprovincial transfers of the teaching staff); (c) see also Cons. Stato, judgment No. 881 of 4 February 2020 (on giving tenure to support teachers and on teachers' mobility procedures); (d) in the same direction, albeit with respect to the obligation of disclosure of only a part of the source code, see Tar Sicilia, Catania, Section IV, judgment 10 January 2019, No. 22 (in the matter of access to source code used for the filing of applications for the participation in the call PO FESR 2014/2020 – Azione 3.1.1.03 "Aiuti alle imprese esistenti per investimenti in macchinari, impianti e beni intangibili e accompagnamento dei processi di riorganizzazione e ristrutturazione aziendale").

[2] For example, according to the Tar Lazio, Roma, Section III *bis*, judgment 22 March 2017, No. 3769, "The software becomes of key relevance in the matter of the administrative procedure aimed at the adoption of a computer-processed act and its own legal qualification in terms of computer *administrative act* is important for different for different aims, most importantly that of verifying the admissibility of access referred to in Articles 22 and following of Law No. 241 of 1990 to the relative computer program and, ultimately, to what is known as its source language"; according to the Tar Sicilia, Catania, Section IV, judgment 22 of 2019, with respect to access to the source code "It is, therefore, the access indicated in Art. 24, par. 7 of L. 241/1990, pursuant to which 'Applicants must nevertheless be guaranteed access to administrative documents whose knowledge is necessary for them to look after and defend their legal interests'.".

[3] See for example Cons. Stato, with judgment No. 881 of 4 February 2020 which, by abandoning a strict implementation of the protection mechanisms of Law 241 of 1990, has concluded that "the fundamental need for protection deriving from the use of the computer instrument defined as algorithmic is transparency in the above-mentioned terms referable to the principle of motivation and/or justification of the decision" and then observed, with respect to the transparency of the source code, that "(…) no importance may be attached to the invoked confidentiality of the companies producing the computer mechanisms used which, by offering these instruments to the authoritative power, accept their consequences in terms of necessary transparency".

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I shall let the administrative doctrine debate over the qualification of the source code as an administrative act (with respect to which several perplexities can arise) and over the consequences a different qualification of the source code would entail[4].

I shall instead focus on the more private law-related issues, albeit with an interdisciplinary perspective, related to (i) the accessibility to the source code in the very cases where the ownership of intellectual property rights remains of the private contractor, *i.e.* the software house, and (ii) the balancing of legally relevant interests, including the interest underlying the principle of transparency.

The aim of the present work is to verify whether the access to the source code is the most suitable solution to the protection requirements the administrative courts have decided to safeguard in the above-mentioned cases or whether, instead, other solutions emerge, bearing in mind the need to balance opposing interests protected by the legal system and the proportionality principle.

The question posed is whether the principle of transparency of administrative action must truly translate into the necessary disclosure of the source code, even if there are intellectual property rights and trade secrets or, by contrast, the principle of transparency of administrative action can be ensured by other means, without diminishing the prerogatives of intellectual property rights[5].

Upon charting a course of reflection aimed at providing solutions as to how these interests must be balanced (in the case of a request to access the source code of programmes used in the public administration as support in the decisions to be made within administrative processes, without, however, acquiring the ownership of exploitation rights to the software, which are maintained by the private contractor), developing an analysis with a systematic

perspective is necessary.

The present work will examine, in this respect: (a) the acquisition methods of the software by the public administration (Articles 68 and 69 Digital Administration Code); (b) European Regulation in the matter of software copyright (Dir. 2009/24/EU); (c) European Regulation in the matter of automated decisions (Art. 22 EU Reg. No. 679/2016, GDPR).

2. *Discretionary appreciation of the public administration in the acquisition of software (Articles 68 and 69 of the Italian Digital Administration Code) and relevance of the lex specialis*

A first aspect to examine, for the purposes of the present analysis, concerns the acquisition methods of the software by the public administration.

As is well-known, Articles 68 and 69 of the Italian Digital Administration Code (CAD) provide for some discretion in the acquisition of the most suitable solution among those available on the market, be it an open source of a proprietary type solution[6].

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[4] See A.G. Orofino and G. Gallone, *L'intelligenza artificiale al servizio delle funzioni amministrative: profili problematici e spunti di riflessione*, in *Giurisprudenza italiana*, 2020, 1738 ff.; and the presentations at the Congress entitled "*Intelligenza artificiale e funzioni amministrative. Sindacato e tutela rispetto alle decisioni automatizzate*" organised online by LUM Jean Monnet University, on 19 June 2020. For a general overview of issues related to the electronic administrative act and its pathologies, see A.G. Orofino, *La patologia dell'atto amministrativo elettronico: sindacato giurisdizionale e strumenti di tutela*, in *Foro amministrativo*, 2002, 2252 ff.; see also A.G. Orofino, *Forme elettroniche e procedimenti amministrativi*, Bari, Cacucci, 2008.
[5] Here the principle of transparency of the administrative action must be assessed both with respect to the need for protection of the citizen, and with respect to the need to guarantee efficiency and a good performance of the public administration, the verifiability of the administrative decisions made by means of algorithmic decisions, and the imputability of these decisions to the administration itself.

[6] See A.G. Orofino, *Open source e pubblica amministrazione*, in *Diritto delle nuove tecnologie informatiche e dell'Internet*, G. Cassano (ed.), Milan, Ipsoa, 2002, 1317; A.G. Orofino, *La semplificazione digitale*, in *Il diritto dell'economia*, 2019, n. 3, 87 ff. and, *ibid.*, in particular 107 ff.; F. Martini, *Open source, pubblica amministrazione e libero mercato concorrenziale*, in *Diritto dell'economia*, 2009, 677; F. Bravo, *Software «open source» per la p.a. tra diritto d'autore, appalti pubblici e diritto dei contratti. La licenza pubblica dell'UE per i programmi a codice sorgente aperto*, in *Il diritto dell'informazione e dell'informatica*, 2008, 865; F. Bravo, *EUPL e riuso di software open source da parte della pubblica amministrazione. Strategie di diritto contrattuale*, in *Ciberspazio e diritto*, 2010, n. 1, 53-73; F. Bravo, *Gli appalti pubblici per la fornitura di beni e servizi nel settore ICT e gli appalti pubblici elettronici alla luce del d.lgs. 163/2006 (Codice dei contratti pubblici relativi a lavori, servizi e forniture)*, in *Contratto e impresa*, 2007, n. 4/5, 1269-1322; F. Bravo, *Software "Open Source" e Pubblica Amministrazione. L'esperienza comunitaria e quella italiana tra diritto d'autore, appalti pubblici e diritto dei contratti*, in *Open source e proprietà intellettuale: fondamenti filosofici, tecnologie informatiche e gestione dei diritti*, S. Bisi and C. Di Cocco (eds.), Bologna, Gedit, 2008, 61-150; F. Bravo, *Gli appalti pubblici per la fornitura di beni e servizi nel settore ICT e gli appalti pubblici elettronici alla luce del d.lgs. 163/2006 (Codice dei contratti pubblici relativi a lavori, servizi e forniture)*, in *Il cittadino elettronico e l'identità digitale nell'e-governance*, M. Palmirani and M. Martoni (eds.), Bologna, Gedit, 2006, 147-206; F. Bravo, *La Licenza pubblica dell'UE per il rilascio di software "open source"*, in *Contratti*, 2008, n. 11, 1063-1076; F. Macrez and R. Riviere, *Les logiciels libres, l'administration et les marchés publics. Des principes juridiques à la pratique (et inversement)*, in *Revue lamy droit de l'immatériel*, n. 16, 2006, 57; M. Fernández Salmerón, *La reforma del régimen jurídico de las Administraciones Públicas y del Procedimiento Administrativo en España*, in *Diritto mercato e tecnologia*, 2016, n. 2, 207 and in particular p. 228; E. Mouriesse, *L'opacité des algorithmes et la transparence administrative*,

Subsequently to the 2016 reform, due to reuse needs of the software by other public administrations (but, we will add in the present work, also due to requirements of transparency) the rule lays down that the client public administration shall acquire, whenever possible, the ownership of the computer programmes developed for it, unless this is too expensive for proven reasons of technical-economic nature (69, paragraph 2, CAD).

Where the public administration acquires the ownership of the software, it shall make available the source codes, for the reuse of the software by other public administrations of other legal entities intending to adapt them to their needs (69, paragraph 1, CAD).

Alternatively, the public administration can resort to the various solutions available on the market (including open source software programmes or proprietary software licenses), subsequently to a technical-economic comparative assessment (68 CAD).

Self-evidently, where the public administration accesses open source solutions, no problems related to the access to source codes arise: problems arise if the public administration chooses, for technical and economic reasons, to resort to proprietary type solutions, leaving to the private contractor the intellectual property rights on the software, thus only acquiring the right to its use, according to the business model identified in the acquisition procedure, under which, through the call and the contract, the rights and obligations of the contractor and of the client are laid down[7].

Therefore, the public administration, also subsequently to the 2016 reform, has the right to acquire the proprietary type software (for instance through a user license or in other forms, such as with a cloud computing license), thus saving money and gaining further advantages (such as the allocation to the supplier of the software's dynamic maintenance obligations) which, through the acquisition of the software ownership, it would not have had. If the public administration resorts to the proprietary type software supply, the software ownership remains of the contractor, who also maintains exclusive rights to the source code and, therefore, the right to deny access to third parties in order to protect trade secrets[8].

Therefore, the public administration decides which acquisition methods to use, according to evaluation criteria set out in Articles 68 and 69 CAD. The choice relating to the acquisition methods shall be then transposed in the call for tender, which is the *lex specialis* in the relations between public administration, contractor and other subjects, affected by the procedure to public evidence. In this respect, it is worth mentioning the consolidated principle, reaffirmed multiple times by the Italian Council of State, whereby "The requirements laid down in the *lex specialis* bind not only the tenderers, but also the administration itself, which does not maintain any margin of discretion in their concrete implementation, nor can it disapply them, not even when some of these rules are deemed inappropriate, disproportionate or at any rate outdated, with the exception of the possibility of proceeding with the annulment of the call, by exercising the power of self-protection"[9].

Where the *lex specialis* – followed by the contract between the client public administration and the contractor – ensures the ownership of the intellectual property rights of the software to the contractor, including the right to confidentiality (secrecy) of the source codes, the contractor maintains – as a decision by the public administration – exclusive rights to the software, including the right to the secrecy of the source codes for the protection of trade secrets and of intellectual property.

The judgments of the Italian administrative courts appear to fail to adequately grasp these aspects.

Most decisions with respect to access to source code of software used by the public administration omit every consideration related to the acquisition methods, thus frustrating the intellectual property rights of the software house, arguing that "(…) special significance cannot be attached to the invoked confidentiality of the companies producing the computer mechanisms used which, by offering such instruments to the authoritative power, accept its consequences in terms of necessary transparency"[10]. Other judgments state that "the circumstance whereby (…) the algorithm was not created directly by the

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in *Revue française de droit administratif*, 2019, 45.
[7] See F. Bravo, *Appalti pubblici per la fornitura di beni e servizi nel settore ICT e tecniche di redazione contrattuale. Le linee guida del CNIPA*, in *Il diritto dell'informazione e dell'informatica*, 2007, n. 1, 103 and ff.
[8] The acquisition of the ownership of the rights to the software by the public administration should therefore not be taken for granted, not even when thinking based on Art. 11 of Italian copyright law (Law No. 633 of 1941 and subsequent amendments and supplements).In accordance with the requirements of Articles 68 and 69 of the Italian

Digital Administration Code (CAD), there is no ownership by the client public administration, as instead states the Tar Lazio, Roma, Section III *bis*, 21 March 2017, No. 3742, where it is stated that "it must (…) be assumed that in the contractual agreements with the company (…) which realizes and develops the computer program holding the algorithm, there is a specific arrangement whereby the administration itself is granted the above-mentioned right or that at any rate, self-evidently, no right to economic use is granted to the private company".
[9] *Ex multis*, Cons. Stato, Section V, judgment 5th March 2020, No. 1604.
[10] See Cons. Stato, judgment No. 881 of 4th February 2020.

MIUR [the Italian Ministry of Education, University and Research] through its own officials and employees but by the above-mentioned company, which was commissioned the creation of it by the administration following the awarding of a contract and which constitutes, therefore, a private negotiation, is not in itself an impediment given that, regardless of the public or private nature of the substantive law, the algorithm is a direct expression of the activity carried out by the public administration, which is undoubtedly an activity in the public interest, in that it concerns the organisation of public service, represented by public education. Indeed, the above-mentioned algorithm entered the procedure as a decisive element and is, at any rate, firmly held by the ministerial administration itself which commissioned it and, consequently, used it for its own purposes"[11].

These arguments do not hold: it is the right itself of the public administration to choose the acquisition methods of the software, crystallised in the *lex specialis* and in the contract with the contractor, which proves the unfounded nature of the argument put forward by the jurisprudence of legitimacy, which not only is not based on any regulation, but is even refuted by European legislation, to which sure systematic validity must be attached.

A recent jurisprudential decision by the Lazio Regional Administrative Court mentions the rules on the matter of acquisition procedures of the software referred to in Articles 68 and 69 of the Digital Administration Code (CAD), but rather than implementing them to the specific case to determine whether the public administration has acquired rights to the source code, it uses them to extract a rationale of legislative policy with which to justify the access to the source code, whereas the acquisition procedures actually followed in this specific case would instead lead to rule it out[12].

The solution adopted in the jurisprudence fails to consider the prerogatives of the controller of the intellectual property rights, nor does it adequately consider the fact that this right is protected as a fundamental right by Art. 17, par. 2, of the Charter of Fundamental Rights of the European Union and, as provided for in Art. 52 of said Charter, it can only be diminished *ex lege*, where there is a need for a balancing with other needs to be safeguarded, which must however comply with the proportionality principle.

In the present case, a balancing must be carried out between the right of the private contractor to intellectual property, also protected through the claim to secrecy of the source codes of the software, and the need for transparency of the public administration (both to protect the prerogatives of the citizen, affected by the provision of the public administration adopted on the basis of the software, and as a guarantee of efficiency of the actions of the public administration, and also for the necessary verifications with respect to imputability of the decision to the public administration.

This secrecy of source codes, however, as will be further explained in the following pages, does not contradict – nor does it cause prejudice to– the principle of transparency, but rather requires that this principle be developed differently, so as to take into account the proportional balancing between the different interests at play.

3. *European Directive on copyright (Dir. 2009/24/EU) and exemptions to property rights in the case of interoperability of the software*

A second aspect concerns exemptions to the secrecy of the source code, provided for in the European regulation in the matter of legal protection of computer programmes (Dir. 2009/24/EU of 23 April 2009, which replaced Directive 91/250/EEC of 14 May 1991)[13], with respect to the *interoperability of the software* with other programmes or computer systems[14].

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[11] *Sic* Tar Lazio, Roma, Section III *bis*, judgment No. 3769 of 2017.

[12] See Tar Lazio, Roma, Section III *bis*, judgment 1 July 2020 No. 7526. In the case of this judgment, the ownership of the software used by the public administration to make decisions in the matter of the administrative procedure has remained property of the contractor, who had shown a contrary intention to the access to the source code to preserve exclusive intellectual property rights. The above-mentioned judgment by the Lazio Regional Administrative Court, however, refers to Articles 68 and 69 of the Digital Administration Code (CAD) to support the legislator's preference for a regime of total transparency, with the exception of secrecy needs due to well-founded reasons related to public security, national defense and elections, not found in the matter of managing public tenders, a subject characterized by maximum transparency. These observations, however, should prompt the public administration to use the acquisition procedures of the software which, from the very beginning, allow for access to the source code and not establish afterwards the accessibility of the code even when the public

administration has concluded, pursuant to Articles 68 and 69 CAD, to leave the ownership of the exclusive rights to the source code to the contractor, owing to motivated technical and economic reasons.

[13] For an overview of the issues regarding the legal framework protecting software, see R. Ristuccia and V. Zeno Zencovich, *Il software nella dottrina, nella giurisprudenza e nel D.Lgs 518/92*, II ed., Padova, Cedam, 1993.

[14] On the issue of software interoperability, see P. Samuelson, *The Past, Present and Future of Software Copyright Interoperability Rules in the European Union and United States (April 2, 2010)*, in *European Intellectual Property Review*, 2010, vol. 34, n. 3, UC Berkeley Public Law Research Paper No. 2170550, Available at SSRN: https://ssrn.com/abstract=2170550; see also J.T. Soma, G. Winfield, and L. Friesen, *Software Interoperability and*

The regulation on interoperability provides, on a systematic level, precious guidelines for the purposes of the present work.

As is well-known, the above-mentioned Directive 2009/24/EU and the relevant implementing rules in the legal systems of the single Member States (in Italy laid down in the law on copyright), provide for the right, for a subject wishing to make his or her software interoperable with the software of another owner of intellectual property rights, to proceed without authorisation from the owner of the property rights over the software, with the decompilation activity, independently collecting the information necessary for the interoperability[15]. This hypothesis is an exception to the general regime: the European regulation, however, by diminishing the rights of the owner of the rights to the software in favor of interoperability requirements, does not oblige the owner of the rights to carry out the disclosure of the source code, nor to disclose information to the detriment of the secrecy of the source code, but only to allow those with a specific interest toward interoperability to autonomously collect the information they need.

The balancing of interests, between the protection of intellectual property and the protection of the market (carried out through the provision which enables the decompilation activity, necessary to guarantee the interoperability of the software), is carried out without causing prejudice to the secrecy of the source code and, with it, the intellectual property rights guaranteed by the secrecy of the sources.

Moreover, if the owner of the intellectual property rights to the software has a dominating position on the market, the balancing is carried out differently, in order to provide greater protection to general interest toward the

safeguard of the free market, deemed a key principle of the European Union. Not even then, however, is the owner of intellectual property rights to the software required to make the source code accessible. He is however required to follow a positive obligation, namely to make available the information necessary to enable the interoperability of their software with that of others (and not only follow the merely passive obligation of allowing the decompilation even in the absence of his or her own authorisation)[16].

Only if the owner of the intellectual property rights to the software has a dominating position is there a rule requiring disclosure, which, however, can never oblige him or her to disclose the source codes, but only disclose information strictly necessary for the interoperability between different software[17].

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[16] See *recital* 17 of Directive 2009/24/EU which reads: "The provisions of this Directive are without prejudice to the application of the competition rules under Articles 81 and 82 of the Treaty if a *dominant supplier* refuses to *make information available which is necessary for interoperability* as defined in this Directive".

[17] See in this respect the end of the well-known case involving Microsoft, related to antitrust conducts censored by the European Commission, both with respect to the entry, within its operating system, of multimedia reader *Windows Media Player* (thus forcing users to purchase the reader together with the operating system), and with respect to the absence of information necessary to allow for interoperability with its operating system (see Decisions of the European Commission of 24th March 2004 and of 10th November 2005). In this respect see, for further information, P. Pardolesi and A. Renda, *The European Commission's Case Against Microsoft: Fool Monti Kills Bill?* (August 19, 2004), in *LE Lab Working Paper No. AT-07-04*, available at SSRN: https://ssrn.com/abstract=579814 or http://dx.doi.org/10.2139/ssrn.579814; G. Sartor and G. Scorza, *L'accesso al codice sorgente: alcune considerazioni su libertà, conoscenza e concorrenza in margine al caso Microsoft*, in *EUI Working Paper Law*, No. 2006/25, 6 ff.: "Given these violations the Commission has ordered Microsoft to pay a sanction of 497.196,304 Euro and put an end the infringements found. In particular (...) Microsoft was ordered to make available, within 120 days, the information related to the interoperability to all rival companies intending to develop and distribute operating systems for servers for work groups authorising these companies – under reasonable and non-discriminatory conditions – to the use of the above-mentioned information in order to attain interoperability. Subsequently to the decision, Microsoft provided the Commission with a series of documents and information which, however, were deemed by experts appointed by the Commission insufficient to allow for the interoperability covered by the decision. Consequently, with a new decision of 10 November 2005, the Commission renewed the invitation to Microsoft to comply with the previous Decision of March 2004 by the following 15 December with the warning that in the case of failure it would have proceeded with imposing a sanction up to 2 million Euro for each day of delay. In the previous months, therefore, the case came to an end as Microsoft informed the Commission it had decided to make available to the rival companies the source code of the programmes covered in the above-mentioned decision through a special license model. After acknowledging this decision the Commission, therefore, informed Microsoft that, pursuant to the Decision of March 2004, it was not

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Reverse Engineering, in *Rutgers Computer & Technology Law Journal*, 1994, vol. 20, 189; Q. Yu, *Software Interoperability Information Disclosure and Competition Law*, in *European Competition Law Review*, 2014, vol. 35, n. 5, 235-252; J. Abbot, *Reverse Engineering of Software: Copyright and Interoperability*, in *Journal of Law Information and Science*, 2003, 7; A. van Rooijen, *The Software Interface Between Copyright and Competition Law: A Legal Analysis of Interoperability* in *Computer Programs*, Kluwer Law International B.V., 2010; A.L.D. Pereira, *Software interoperability, intellectual property and competition law — Compulsory licenses for abuse of market dominance*, in *Computer Law & Security Review*, vol. 27, n. 2, 2011, 175-179; I. Graef, *How Can Software Interoperability Be Achieved Under European Competition Law and Related Regimes?*, in *Journal of European Competition Law & Practice*, 2014, vol. 5, n. 1, 6-19.

[15] Art. 6 (*Decompilation*) of Directive 2009/24/EC: "The authorisation of the right holder shall not be required where reproduction of the code and translation of its form within the meaning of points (a) and (b) of Article 4(1) are indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs (…)".

The secrecy of the source code is preserved by the European legal system[18], even when, owing to general requirements of market protection, a reduction of exclusive rights of the owner of the rights of economic use of the software has been envisaged[19].

This is a precise regulation decision of the European legislator who, upon dealing with the balancing between the protection of intellectual property rights and the general interest of market protection and competitive system protection, has decided to never impose on the owner of rights to the software an obligation of disclosure of the source code. A different decision, made based on the jurisprudential rationale outlined in the above-mentioned judgments of the Italian administrative courts, is in sharp contrast with the decisions made by the European legislator, whose decisions the Italian administrative courts are bound to comply with, owing to the precedence of European law over domestic law[20]. With respect to this too, this does not mean, self-evidently, sacrificing the principle of transparency, but rather implementing it within the logics of the proportional balancing of legally relevant interests, as emerges from the system perspective.

4. *Automated decisions and right to access in the GDPR*

And now let us move on to another significant piece of the mosaic, from a systematic perspective: the provisions on automated decision-making processes laid down in Art. 22 of Reg. (EU) 679/2016 (GDPR) and the guarantees provided for in Art. 15, in the matter of the right to access by the data subject with respect to the controller of the processing of personal data[21].

The rule is applied to the processing of personal data put in place both by private subjects and by public subjects.

The use of algorithms in the matter of a decision-making process which produces legal effects on physical persons is certainly allowed,

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[18] obliged to make accessible the entire source code but only the information necessary to enable its competitors to pursue the afore-mentioned aims of interoperability and that, in addition, one cannot deem peaceful the fact that the provision of said code allows them to attain said aim". (Translation by the author)

[18] P. Pardolesi and A. Renda, *The European Commission's Case Against Microsoft: Fool Monti Kills Bill?*, 51-52: «the Commission ended up providing a shortsighted approach to the concept of interoperability. As a matter of fact, the Commission referred to the concept of "full interoperability" as implying a disclosure of Microsoft Windows' source code for most of the proceeding. In other words, amongst the existing solutions available to achieve interoperability between servers and clients based on different technologies (Web-based protocols, gateway servers, add-on client software, add-on server software), the Commission considered the "open Windows" solution as the only one providing for full client-to-server and server-to-server interoperability at no cost. For this reason, the Commission initially stated its intention to force Microsoft to open up part of its source code to rivals. "Microsoft should promptly make available ... all the interface information necessary to enable full interoperability ... such information being not less complete, less accurate nor less clearly presented than that which is available to Microsoft's employees... for the purpose of developing or improving Microsoft Workgroup Server OS...". According to this view, interoperability means awareness of rivals' source code.

Even with the second Statement of Objections, the Commission clarified that Microsoft should not only disclose the information contained in the interfaces, but also the way in which it implemented such interfaces for the purpose of achieving full client-to-server and server-to-server interoperability. This interpretation seems to have been substantially reversed during the proceeding. Between the lines of the final Decision, no trace of the Commission's intention to force source code disclosure is left. What's more, the Commission clarified in several occasions that Microsoft's disclosure obligations should not be as far-reaching as to involve disclosure of Microsoft's specific implementation of its APIs. The magic word used by Monti's team to express this new, milder obligation is that of "specification", as opposed to "implementation". As a result, Microsoft is ordered to disclose interface specifications, but not its source code».

[19] G. Sartor and G. Scorza, *L'accesso al codice sorgente: alcune considerazioni su libertà, conoscenza e concorrenza in margine al caso Microsoft*, 4: "an active protection of the closure, which not only accepts that the software can be unknowable but also uses the sanctions of the law in order to guarantee this unknowability. This is the decision emerging from Art. 64a of Italian copyright law, whereby the translation of the software – and consequently also its decompilation, *i.e.* the endeavor to trace back the source from the executable, thus achieving a result the human mind can comprehend – is subject to the authorisation of the controller (and is therefore illegal in the absence of this authorisation). Not only does the law refrain from requiring the disclosure of the information on the software, it also puts its sanctions at the service of the source secrecy. The only limitation to this provision is in Art. 64c of the copyright law", in order to guarantee the interoperability of the software, however, it should be noted that this article "does not require the controller of the right to the software

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to provide the source, not even within the limits necessary to achieve interoperability: it merely recognizes the legality of the attempt to decompile the software against the will of the controller (an attempt often bound to failure due to technological reasons), if this attempt is aimed, indeed, at the achievement of interoperability" (Translation by the author).

[20] See F. Galgano, *Trattato di diritto civile*, vol. I, III ed., Wolters Kluwer-Cedam, Milan, 2014, 98 ff.

[21] With regard to the legal framework of automated decisions in light of EU Reg. No. 679/2016 (GDPR), see critical readings by S. Watcher, B. Mittelstadt and L. Floridi, *Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation*, in *International Data Privacy Law*, 2017, 76 ff.; R. Messinetti, *La tutela della persona umana versus l'intelligenza artificiale. Potere decisionale dell'apparato tecnologico e diritto alla spiegazione della decisione automatizzata*, in *Contratto e impresa*, 2019, n. 3, 861-894; R. Messinetti, *Trattamento dei dati per finalità di profilazione e decisioni automatizzate*, in *Persona e mercato dei dati. Riflessioni sul GDPR*, N. Zorzi Galgano (ed.), Wolters Kluwer-Cedam, Milan, 2019, 167-193; G. Resta, *Governare l'innovazione tecnologica: decisioni algoritmiche*, in *Politica del diritto*, 2019, 2, 199-236.

under certain conditions, by the GDPR, even where the decision is made in the matter of an administrative procedure: public administrations, by exercising their powers, certainly fall under the category of subjects controlling the processing of personal data to which one can apply the provision of the GDPR in the matter of automated decisions which produce legal effects on the data subject or that significantly and similarly affect upon his or her person, as is the case where the software is used to base decisions in the matter of an administrative procedure. The use of software as support for decision-making processes of the public administration has also been, in fact, confirmed by recent judgments of the Italian Council of State, including a particularly significant judgment, namely No. 881 of 4 February 2020.

The GDPR does not – in its literal formulation – forbid to adopt algorithmic decisions, but the right of the data subject to not be subject to a decision based exclusively on automated processing[22], unless the decision (i) is laid down and authorized *ex lege* by the law of the EU or of the Member State to which the controller of the processing is subject, provided that the law indicates the suitable measures to

protect rights, freedoms and the legitimate interests of the data subject, (ii) is based on the explicit consent of the data subject or (iii) is necessary for the conclusion or implementation of the contract of which the data subject himself or herself is part. In these cases, the adoption of algorithmic decisions based entirely on automated processing is possible and, should the processing be based on the consent of the data subject or for relevant reasons of public interest, can also concern data belonging to special categories *ex* Art. 9, par. 1, GDPR.

The data subject can request human intervention by the controller of the processing, can express his or her opinion and can challenge the decision[23]. These are all prerogatives which can, in fact, also appear in the matter of automated administrative procedures based on algorithmic decisions, where for instance human intervention can be obtained following hierarchical appeal or other modalities of challenging of the decision, even by resorting to the appeal against the measure, which refers the decision concerning the legitimacy of the measure to the judicial authority.

A noteworthy guarantee comes from the right to access the processing of personal data, which can be exercised in accordance with Art. 15 GDPR also with respect to the treatments entailing automated decision-making processes: paragraph 1, letter *h)*, specifies that the data subject has the right to obtain "from the controller of the processing (…) the following information: (…) *h)* the existence of automated decision-making, including profiling, referred to in Article 22 (1) and (4) and, at least in those cases, *meaningful information about the logic involved*, as well as the significance and the envisaged consequences of such processing for the data subject".

Therefore, the European legislator, in the case of automated decisions which produce legal effects on the data subject or similarly and significantly affect him or her (Art. 22, par. 1. GDPR), envisaged that the data subject has a

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[22] The rule is however interpreted, at an institutional level and by the majority of the legal theory, as an actual "prohibition" for the controller of the processing to adopt entirely automated decisions, to which however substantial exceptions are envisaged by the GDPR. With respect to the above-mentioned interpretation, see, in particular, Art. 29 Data Protection Working Party, *Guidelines on Automated Individual Decision-Making and Profiling for the Purposes of Regulation 2016/679*, updated in February 2018, 19-20; see also R. Messinetti, *Trattamento dei dati per finalità di profilazione e decisioni automatizzate*, 186 ff.; R. Messinetti, *La tutela della persona umana versus l'intelligenza artificiale. Potere decisionale dell'apparato tecnologico e diritto alla spiegazione della decisione automatizzata*, 890 ff; G. Resta, *Governare l'innovazione tecnologica: decisioni algoritmiche, diritti digitali e principio di uguaglianza*, 221. The prohibition acts as a protection of human dignity (see S. Rodotà, *Protezione dei dati e circolazione delle informazioni* in *Rivista critica del diritto privato*, 1984, 721 ff.; G. Alpa, *Dignità personale e diritti fondamentali,* in *Rivista trimestrale di diritto e procedura civile*, 2011, n. 1, 21 ff.), which the automated decision may weaken.

The prohibition in question, however, is connected to clear "powers" of the data subject, which translate into the right to challenge an entirely automated decision, the right to request human intervention on the algorithmic decisions and receive meaningful information on the logic of the automated decision-making process, with respect to which the in the legal theory there have been discussions about the actual scope and extent (S. Watcher, B. Mittelstadt and L. Floridi, *Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation*, 19 ff.; G. Malgieri and G. Comandé, *Why a Right to Legibility of Automated Decision- Making Exists in the General Data-Protection Regulation*, in *Int'l Data Privacy Law*, 2017, n. 7, 243; R. Messinetti, *La tutela della persona umana versus l'intelligenza artificiale. Potere decisionale dell'apparato tecnologico e diritto alla spiegazione della decisione automatizzata*, 875 ff.).

[23] In particular these guarantees are envisaged, in the GDPR, with reference to the above-mentioned hypotheses under (ii) and under (iii) related to the consent of the data subject of the conclusion or implementation of the contract, while according to the hypothesis under (i) nothing is specified by the GDPR, except that the law of the EU or of the Member State, when envisaging an automated decision, shall envisage "suitable measures to safeguard the data subject's rights and freedoms and legitimate interests", thus delegating to other regulatory provisions the possible provision of the guarantees envisaged for the above-mentioned hypotheses under (i) and under (ii), *i.e.* the right to obtain human intervention by the controller of the processing, express one's opinion and challenge the decision. With respect to the decisions adopted in the matter of the administrative procedures, self-evidently, the right to challenge the decision is guaranteed by the appeal system provided for in the administrative law.

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right to access aimed at obtaining "meaningful information" on the "logic used" for automated decisions: these are expressions which may lead to an extensive interpretation, thus also entailing the right to access the source code which contains, in programming language, the logical instructions used to operate the software employed for the adoption of the algorithmic decision.

It is, however, an interpretation which the European legislator himself or herself has chosen to avoid, as is clearly indicated in *recital* 63 of the GDPR, where it is specified that *"(...) Every data subject should (...) have the right to know and obtain communication in particular with regard* to the purposes for which the personal data are processed, where possible the period for which the personal data are processed, the recipients of the personal data, *the logic involved in any automatic personal data processing* [including the one put in place by the public administration in the matter of administrative procedures assisted by algorithmic decisions, author's note] and, at least when based on profiling, the consequences of such processing. (…) *That right should not adversely affect the rights or freedoms of others, including trade secrets or intellectual property and in particular the copyright protecting the software.* However, the result of those considerations should not be a refusal to provide all information to the data subject. Where the controller processes a large quantity of information concerning the data subject, the controller should be able to request that, before the information is delivered, the data subject specify the information or processing activities to which the request relates".

There is a clear instruction by the European legislator.

In order to guarantee the right to functional access to protect the fundamental rights of the data subject against automated decision-making processes, the controller of the processing can never be obliged to provide the source codes to satisfy the principle of *transparency*, which must however be ensured in another way[24]. It is the European legislator himself or herself who indicates how in this case the proportional balancing of interests must be achieved: transparency is entrusted to the disclosure of "meaningful information" regarding the "logic" of the processing, its importance and its

consequences, *i.e*. through a qualified and meaningful information system and not through the disclosure of source codes, which has been expressly excluded (*recital* 63 GDPR).

In other words, there is a need to make the release of information effective and efficient, in order for it to acquire value to illustrate the logic of the processing used, thus informing the data subject not on the technical instructions given in programming language to operate the software used for the adoption of the automated decision, which is difficult to understand for the data subject, but rather on the intelligible information which can allow him or her to learn the operating modes, the criteria, the parameters and the elements used by the automated system to reach its decision, without communicating what constitutes the subject protected by intellectual property, *i.e*. – in this case – what is covered by the exclusive rights to the software, including access to the source code.

This implies that oversight over automated decisions, also through appeal systems of administrative measures before the judicial authority, focuses on the quality and the completeness of the information system –other than the source code – necessary to understand the adoption of the decision and verify its legitimacy[25]. In this respect, it would also be necessary to ensure the verifiability of the decision-making process on the basis of the criteria and parameters used by the software, as set out in the information system to communicate to the data subject, and even declare the *illegitimacy* of the administrative measure adopted on the basis of a decision deemed non-verifiable based on the set of information provided or at any rate the illegality of the automated decision made with a lack of suitable information support capable of explaining the logic of the decision-making process in the specific case.

Should it be factually impossible to recreate the automated decision-making process – for instance owing to the methods though which the algorithm underlying the automated decision was devised (such as in the case of resorting to artificial intelligence technologies with "non-linear" algorithms)[26] – or in the event that the

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[24] It should be noted that the principle of transparency, discussed at length in the administrative jurisprudence in the matter of disclosure of the source code of the software used for the algorithmic decisions in administrative procedures, underlies the legal framework on the subject of data protection, as is expressly laid down in Art. 5, par. 1, letter *a)*, GDPR, where the principles of legality, fairness and *transparency* of the processing with regard to the data subject are affirmed.

[25] One can agree, owing to its systematic and teleological considerations, with the argument of R. Messinetti, *La tutela della persona umana versus l'intelligenza artificiale. Potere decisionale dell'apparato tecnologico e diritto alla spiegazione della decisione automatizzata*, 883 ff., according to which the logic of the processing which the data subject has a right to know is not the "functional" logic of the system, which can be assessed ex ante, but the logic related to the decision concretely made adopted toward him or her by the automated system, which can be known ex post.

[26] With respect to "non-linear" programming, see T.H. Cormen, C.E. Leiserson, R.L. Rivestand, and C. Stein,

controller of the processing does not provide an adequate explanation of the logic used in the automated decision-making process – where the recreation of the logic is factually possible – there would be, in terms of legal consequences, the illegality of the automated decision-making process and the invalidity of the decision in the legal sphere of the data subject[27].

Thus, on the administrative side, the measure based on an automated decision-making process which has remained "inexplicable" or not adequately "explained" with respect to the logics upon which the algorithmic decision was based – in accordance with Articles 15, par. 1, letter *h),* and 22 GDPR – winds up receiving a declaration of illegitimacy.

It should be noted that the solution is in agreement with the framework outlined by the Charter of Fundamental Rights of the European Union, which at Art. 17, par. 2, includes the right to intellectual property among the fundamental rights subject to protection and at Art. 52, par. 1, when outlining the "Scope of guaranteed rights", expressly rules that "Any limitation on the exercise of the rights and freedoms recognized by this Charter must be provided for by law and respect the essence of those rights and freedoms. Subject to the principle of proportionality, limitations may be made only if they are necessary and genuinely meet objectives of general interest recognized by the Union or the need to protect the rights and freedoms of others".

The above-mentioned administrative jurisprudence, though worth praise in its intents, can nevertheless be criticized for its decision to sacrifice, by not following the proportionality principle, one of the key contents of the right to intellectual property over software: the secrecy of source codes through which exclusive rights are guaranteed. Indeed, such a compression of the rights to intellectual property, as can be inferred from Articles 17 and 52 of the Charter of fundamental rights, is therefore possible not only when there is a legal provision providing for this limitation, given also the fact that the principle of proportionality must be respected, in accordance with which there can be a limitation of the fundamental right considered here – to intellectual property – only to the extent strictly necessary to protect the right or the general interest to safeguard, in the logic of balancing the interests and so as to cause the least sacrifice possible for the interest undergoing the limitation.

One must therefore verify whether the need for transparency can be satisfied – as would seem possible at the end of this analysis – by exploring different options other than the disclosure of the source code, by setting more rigorous information requirements and legal consequences in the case of failure to fulfill these obligations. This is the decision which, in European law, is envisaged for the hypotheses of balancing the right to intellectual property of the software and transparency requirements related to the protection of general interests (such as the protection of the market, envisaged in the matter of interoperability and dominating position in the legal framework on the protection of software) or of opposing fundamental individual rights (envisaged for instance by the regulation in the matter of personal data protection).

A different solution – such as the one chosen by jurisprudential decision described at the beginning of the present work – stands in contrast to Art. 52 of the Charter of fundamental rights, to the European legal system, considering its systematic implications, and to the techniques of proportional balancing of legally relevant interests, and will therefore hopefully be abandoned.

Introduction to Algorithms, III ed., Cambridge, MA, The MIT Press, 2009.
[27] In this respect see also the refined arguments by R. Messinetti, *La tutela della persona umana versus l'intelligenza artificiale. Potere decisionale dell'apparato tecnologico e diritto alla spiegazione della decisione automatizzata*, 891 ff.

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