

# Towards an “Algorithm Constitutional by Design”

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TOWARDS AN “ALGORITHM CONSTITUTIONAL BY DESIGN”

ABSTRACT: We focus on the Internet constitutional rules linked with the algorithmic decision-making. The reasoning is structured upon two related topics. Firstly, the regulatory model well tailored to the Internet: hard or soft law. Secondly, the constitutional legitimacy arising from each model: at the national and European levels. The algorithms are assumed as test for the resistance or not of the binomial category: fundamental rights/public power. They pose the challenge to design new reasonable paradigms able to take into account the visibility and the intelligibility of algorithms. The Author leaves us with a basic question: a rule suited to draw an “algorithm Constitutional by design”.

KEYWORDS: Internet; algorithm; Constitution; European Union; regulation

SUMMARY: 1. Premises of the reasoning – 2. The historical question whether and how to regulate the net – 3. Anarchy or binding rules for the algorithms? – 4. The digital dimension of privacy – 5. Is the European discipline of algorithms in favor of the citizens’ rights? – 6. Towards an algorithm constitutional by design? – 7. Conclusive remarks.

## 1. Premises of the reasoning

In this work three issues will be dealt with. The first is the ancient question concerning whether and how to regulate the net. The second refers to the algorithm as specific object of the previous question, delving into the pro and contra of two ways to tackle the net: self-regulation or binding rules or, instead of them, a hybrid mode. The third is a new perspective to combine the fundamental rights and the technological innovation: an *ex ante* algorithm constitutional by design. Now it is time to begin with the first issue.

## 2. The historical question whether and how to regulate the net

Our path begins with an in-depth analysis of the two alternative modes to regulate the net: binding rules or policies of self-regulation. In a previous work we have excluded the necessity to constitutionalize the Internet<sup>1</sup>, and we have no reason to re-examine this issue here.

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<sup>1</sup> G. DE MINICO, *Towards an Internet bill of rights?*, in *Loyola of Los Angeles International and Comparative Law Review*, 37, 1, 2015, 12-15.

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Instead of formal modifications of national Constitutions, we propose a supranational “Bill of Rights” for the Internet<sup>2</sup>, but this proposal prompts further questions: which Authority shall be legitimated<sup>3</sup> to write the fundamental Charter of the Internet? And how should the relationship be established between the Charter and the policies of self-regulation?

The above questions call for the necessity of a general regulation going beyond both the national boundaries and the sectional interests prevailing in any given moment. A comprehensive view of the possible answers will support the assertion that all technical issues concerning the Internet cannot be left to the invisible hand of a market-oriented technological development, rather, technology should be goal-oriented towards achieving a common good<sup>4</sup>. Should this happen, the Internet would finally be a unique and effective opportunity for everyone to pursue personal growth and participation in the virtual political process. Such an outcome, however, can only be ensured through clear choices made by policymakers and netizens. If this outcome has already occurred or is going to happen, we cannot anticipate now but we will look at it later, i.e. when we think about an algorithm constitutional design. The hypothesis of one or more national States assuming such a role must be rejected because the a-territorial nature of the Internet would be incompatible with an Authority entrusted with powers constrained within State boundaries<sup>5</sup>.

The features of the Internet require, as stated above, that only a supranational legislator should be called upon to write its Constitution. Even so, one question remains open: should it rather be the community of Internet “surfers” through self-regulation, or should such a legislator be an international body through an authoritative hard-law regulation?

In the former model a State leaves all initiative to private bodies, and gets involved only when self-regulation, although necessary, is missing. This form of self-regulation takes place within the limits of the freedom of negotiation. As long as no problem arises, the State does not directly intervene. Nevertheless, the fact itself that the public authority may act turns its absence into a potential presence, on the assumption that «if nothing is done State action will follow»<sup>6</sup>.

This self-regulation model may be defined as “independent” from the law, since the law is entirely lacking, even as a minimal framework for the *inter partes* negotiation<sup>7</sup>. It appears to be a historically

<sup>2</sup> The voice who launched this promising idea is: L. LESSIG, *Reading the Constitution in Cyberspace*, in *Emory Law Journal*, 45, 3, 1996, 7-18. Recently as an evolution of the first concept into digital constitutionalization see: E. CELESTE, *Digital constitutionalism: a new systematic theorization*, in *International Review of Law, Computers & Technology*, 33, 1, 2019, 76-99; G.M. TERUEL LOZANO, *Fundamental rights in the digital society*, in *Revista Chilena de Derecho*, 46, 1, 2019, 301-315; D. REDEKER, *Towards a European Constitution for the Internet?*, in *Comparative Institutionalization and Mobilization. European and Transnational Digital Constitutionalism*, GigaNet Annual Symposium, 2019, <https://bit.ly/3qmJefC> (last visited 04/02/2021).

<sup>3</sup> R.W. RIJGERSBERD, *The State of Interdependence. Globalization, Internet and Constitutional Governance*, The Hague, 2010, 49-68 and 213-230.

<sup>4</sup> Concerning Internet as a “global public good”, see: M.R. CANAZZA, *The Internet as a global public good and the role of governments and multilateral organizations in global internet governance*, in *Meridiano* 47, 19, 2018, 2-3.

<sup>5</sup> C. REED, *Making laws for cyberspace*, Oxford, 2012, 30-34.

<sup>6</sup> See: R. BALDWIN, M. CAVE, *Understanding Regulation*, Oxford, 1999, 126.

<sup>7</sup> The name “independent” was my intellectual creation launched in my previous work: G. DE MINICO, *A Hard Look at Self-Regulation in the UK*, in *European Business Law Review*, 17, 1, 2006, 211, in order to stress the fact that it operates out of a legal framework like a *use prater legem*.



regressive model<sup>8</sup>. That is because private stakeholders, left by themselves, have shown time and again that they pursue only egotistical interests<sup>9</sup>. Therefore, the achievement of the common good depends on chance, whenever it happens to correspond with private interests, and it has frequently proven to be unable to build the consensus necessary to condense and shape the common good in a supranational synthesis<sup>10</sup>.

On the contrary, the latter model – a hard-law regulation – consists in a supranational and binding authority that could fall easily under the influence of strong nation States, the interests of which only occasionally coincide with a broader common good. In brief, international organizations tend to reproduce, albeit on a smaller scale, the basic flaw of world politics; at best a system of interactions between autonomous nation States may occur.

Therefore, we propose a median hypothesis coherent with the order which links binding sources and self-regulation.

First, the legislative power should be vested in a public supranational authoritative body, based on legal and binding provisions, which also define the nature and scope of its powers. «Some scholars have suggested that this new form of law should receive a new name: “cosmopolitan law” or “world law”»<sup>11</sup>.

Second, the decision-making process of such a body should encompass a strong representation of private interests concerning the Internet such as entrepreneurs, web surfers, and consumers. Opposing stakeholders should discuss basic issues before a public authority, which is able to make a final decision after the different views have been listened to and fully taken into account. The problems of standing and those concerning the choice of interests to be admitted to such a procedure have been extensively explored by the American doctrine, which could be a reference on this point<sup>12</sup>.

We find a complex relationship between binding law and consensual law<sup>13</sup>. A binding framework should be set defining the respective roles of law and self-regulation. Not only will the former have to give a foundation to the competence of the latter, but the law will also have to provide guidelines for the substantive regulation to be adopted, and to outline the structural features<sup>14</sup> of the private regulator

<sup>8</sup> The example of financial markets can show that when objective values are at stake, such as the good name of single markets, the trust in a free trade economy and the safety of private savings, the English legislature did no longer rely on one-sided regulation. It deeply changed self-regulatory models with the purpose of making public regulatory powers prevail.

<sup>9</sup> J. KAY, J. VICKERS, *Regulatory reform: an appraisal*, in G. MAJONE (ed.), *Deregulation or reregulation? Regulatory reform in Europe and the United States*, London, 1990, 239, where the authors underline that the private bodies «may claim that their objective are in line with the public interest, but whether or not this is so will depend on the frameworks in which they operate».

<sup>10</sup> See: G. TEUBNER, *Constitutional fragments. Social constitutionalism and globalization*, Oxford, 2012, 66.

<sup>11</sup> J. KU, J. YOO, *Globalization and Sovereignty*, in *Berkeley Journal of International Law*, 31, 2013, 212.

<sup>12</sup> See, e.g.: S.G. BREYER ET AL., *Administrative law and regulatory policy*, Alphen aan den Rijn, 2017, 869-881; M. SHAPIRO, *APA: Past, Present, Future*, in *Virginia Law Review*, 72, 1986, 447; see also: R.J. PIERCE JR, *Rulemaking and the Administrative Procedure Act*, in *Tulsa Law Journal*, 32, 1996, 185; and see B. SCHWARTZ, *Adjudication and the Administrative Procedure Act*, in *Tulsa Law Journal*, 32, 1996, 203.

<sup>13</sup> G. DE MINICO, *A hard look at self-regulation in the UK*, cit., 197-200.

<sup>14</sup> L.B. SOLUM, *Models of Internet Governance*, in L.A. BYGRAVE, J. BING (eds.), *Internet governance*, Oxford, 2011, 61-69; S. BEATTIE, *Community, space and online censorship*, Burlington, 2009, chapter 5.

so that adequate representativeness and the democratic nature of its decision-making processes remain assured<sup>15</sup>. These restrictions are especially justified when self-regulation tends to bind a wider community than the one strictly represented by the self-regulator, i.e. whenever private self-regulation aims towards *erga omnes* effectiveness<sup>16</sup>.

As Teubner stated, the risk of a «corporate constitutionalism» is inherent whenever well-structured and significantly funded private bodies enter the field. The Internet may very well be the «most prominent case of constitutional law created through multinational corporations private ordering»<sup>17</sup>. And even if we refuse any kind of stereotype, corporate constitutionalism will undoubtedly be accompanied by «the glimmering of the constitution of multi-national enterprises as an autonomous community of entities that have begun to regulate themselves through the construction of systems of governance independent of the states»<sup>18</sup>.

The risk underlined by Teubner should not be underestimated. We are currently facing a private interest government, to use an expression familiar to some scholars<sup>19</sup>, entrusted with social tasks because their regulations affect not only their associates, but also third parties.

Conclusively, in a correct order, law comes first, self-regulation follows. If the order is inverted, the inherently secondary nature of self-regulation with respect to the law will be merely fictitious. Self-regulation will be applied as a full-fledged source of law. Damages to the constitutional architecture will be inevitable.

Nevertheless, it may happen that the correct relationship between heteronomy and autonomy<sup>20</sup> may be found. But such an order does not seem to be wholly accepted in every State<sup>21</sup>. From such an approach could follow the entrusting of the rules on online fundamental freedoms to the economic powers operating on the Internet, that is to say to an uncontrolled self-regulation by the «management of private interest»<sup>22</sup>. This kind of outcome would expose the net to the danger of a neo-corporative and selfish involution, given the absence of a heteronomous guide towards the common good.

<sup>15</sup> R.H. WEBER, *Shaping Internet governance: regulatory challenges*, Heidelberg, 2009, 105. Also: J. GOLDSMITH, T. WU, *Who controls the Internet?*, Oxford, 2006, 17.

<sup>16</sup> J. BLACK, *Constitutionalising self-regulation*, cit., 26. With specific reference to the Internet topic see: J. CAVE, *Policy and regulatory requirements for a future internet*, in I. BROWN (ed.), *Research Handbook on governance of the Internet*, Cheltenham, 2013, 161.

<sup>17</sup> G. TEUBNER, *Constitutional fragments*, Oxford, 2012, 56.

<sup>18</sup> L.C. BACKER, *Autonomous global enterprise: on the role of organizational law beyond asset partitioning and legal personality*, in *Tulsa Law Journal*, 41, 2006, 541-571, 567.

<sup>19</sup> See W. STREECK, P.C. SCHMITTER, *Community, Market, State and Associations? The Prospective Contribution of Interest Governance to Social Order*, cit., 1-29.

<sup>20</sup> See: C. MARSDEN, *Internet co-regulation*, Cambridge, 2011, 58.

<sup>21</sup> For opposite approaches consult: G8 SUMMIT, *G8 Declaration renewed commitment for freedom and democracy*, May 26<sup>th</sup>-27<sup>th</sup>, 2011, Deauville, France, <http://bit.ly/2Zlwc5X> (last visited 04/02/2021).

<sup>22</sup> The expression belongs to: W. STREECK, P.C. SCHMITTER, *Community, market, State and associations? The prospective contribution of interest governance to social order*, in W. STREECK, P.C. SCHMITTER (eds.), *Private interest government*, Beverly Hills, 1985, 16.

### 3. Anarchy or binding rules for the algorithms?

The algorithmic<sup>23</sup> object is the floor to verify which of the two regulatory alternatives previously examined, self-regulation or binding regulation, is more suitable and well-tailored to the aim of equality. It is time to delve into the European legal framework concerning the AI in order to find out how the regulatory reservation is resolved. The European legal framework is composed by: the Regulation

<sup>23</sup> Assuming the impossibility to synthesize the vast literature concerning the algorithms in a footnote, we shall only recall the more outstanding voices, while the most recent Authors will be quoted during our work: V. MAYER-SCHÖNBERGER, K. CUKIER, *Big Data*, New York, 2013; Id., *Technological Due Process*, in *Washington University Law Review*, 85, 6, 2008, 1249; D.K. CITRON, F. PASQUALE, *The Scored Society: Due Process for Automated Predictions*, in *Washington Law Review*, 89, 1, 2014; K. CRAWFORD, J. SCHULTZ, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, in *Boston College Law Review*, 55, 2014, 93; L.A. BYGRAVE, *Minding the Machine: Article 15 of the EC Data Protection Directive and Automated Profiling*, in *Computer Law and Security Review*, 17, 1, 2001, 17; M. ANANNY, K. CRAWFORD, *Seeing without Knowing: Limitations of the Transparency Ideal and its Application to Algorithmic Accountability*, in *New Media & Society*, 2016, 1; D.R. DESAI, J.A. KROLL, *Trust But Verify: A Guide to Algorithms and the Law*, in *Harvard Journal of Law & Technology*, 31, 1, 2017, 1-64; M. HILDEBRANDT, *The Dawn of a Critical Transparency Right for the Profiling Era*, in J. BUS, M. CROMPTON, M. HILDEBRANDT, G. METAKIDES (eds.), *Digital Enlightenment Yearbook*, Amsterdam, 2012, 41; N.M., RICHARDS, J.H. KIN, *Big Data Ethics*, in *Wake Forest Law Review*, 49, 2014, 393; J.A. KROLL, J. HUEY, S. BAROCAS, E.W. FELTEN, J.R. REIDENBERG, D.G. ROBINSON, H. YU, *Accountable Algorithms*, in *University of Pennsylvania Law Review*, 165, 2017, 633; P. KIM, *Auditing Algorithms for Discrimination*, in *University of Pennsylvania Law Review Online*, 166, 2017, 189; W. NICHOLSON PRICE II, *Regulating Black Box Medicine*, in *Michigan Law Review*, 116, 2017, 421; P. SCHWARTZ, *Data Processing and Government Administration: The Failure of the American Legal Response to the Computer*, in *Hastings Law Journal*, 43, 1992, 1321.

In the Italian doctrine, see: S. GAETANO, *La decisione amministrativa tra vincolatezza, discrezionalità ed intelligenza artificiale: la prospettiva per la pubblica amministrazione di una responsabilità da «algoritmo»*, in *Rivista elettronica di Diritto, Economia, Management*, 2, 2018, 44; I.A. NICOTRA, V. VARONE, *L'algoritmo, intelligente ma non troppo*, in *Rivista AIC*, 2019, 4; L. VIOLA, *L'intelligenza artificiale nel procedimento e nel processo amministrativo: lo stato dell'arte*, in *Il Foro Amministrativo*, 2018, 1598; G. AVANZINI, *Decisioni amministrative e algoritmi informatici*, Napoli, 2019, *passim*; G. PESCE, *Il Consiglio di Stato ed il vizio della opacità dell'algoritmo tra diritto interno e diritto sovranazionale*, in *giustizia-amministrativa.it*, 2020; L. VIOLA, *Attività amministrativa e intelligenza artificiale*, in *Cyberspazio e Diritto*, 20, 1/2, 2019, 65; M. BASSINI, G. DE GREGORIO, M. MACCHIA, A. PAJNO, *AI: profili giuridici. Intelligenza Artificiale: criticità emergenti e sfide per il giurista*, in *BioLaw Journal*, 3, 2019, 205 ff.; I.M. DELGADO, *Automazione, intelligenza artificiale e pubblica amministrazione: vecchie categorie concettuali per nuovi problemi?*, in *Istituzioni del Federalismo*, 3, 2019, 643; D.U. GALETTA, J.C. CORVALAN, *Intelligenza artificiale per una pubblica amministrazione 4.0? Potenzialità, rischi e sfide della rivoluzione tecnologica in atto*, in *federalismi.it*, 3, 2019, 60; A. SIMONCINI, *L'algoritmo incostituzionale: intelligenza artificiale e il futuro delle libertà*, in *BioLaw Journal*, 1, 2019, 1-27; M. BASSINI, L. LIGUORI, O. POLLICINO, *Sistemi di intelligenza artificiale, responsabilità, accountability. Verso nuovi paradigmi?*, in F. PIZZETTI (ed.), *Intelligenza artificiale, protezione dei dati personali e regolazione*, Torino, 2018; G. RESTA, *Governare l'innovazione tecnologica: decisioni algoritmiche, diritti digitali e principio di uguaglianza*, in *Politica del Diritto*, 2, 2019, 199-236; and F. DONATI, *Intelligenza artificiale e giustizia*, in *Rivista AIC*, 1, 2020, 1-22.



(EU)016/679<sup>24</sup>, the Framework Resolution EP A9-0186/2020<sup>25</sup> and the Proposal of regulation (EC) 2020/825<sup>26</sup>, representing the principal cornerstones of this architecture *in fieri*<sup>27</sup>.

Since these acts refer to the co-regulation model, it is appropriate to verify whether a co-regulation's regime actually occurs, characterized by a hierarchical distribution of the normative power between public and private sources. Otherwise, something else is taking place, which carries only the name of co-regulation. In this respect, the three above mentioned acts present an old vice affecting the European legislation, namely not taking a well-defined and courageous position. In fact, the DSA and the Framework Resolution provided that, in principle, private codes of conduct would be ancillary to the European regulation in progress. This would imply, if translated into the typical language of the sources of law, that the codes of conduct are only lawful when they are *secundum legem* (where "*legem*" means the European regulation); while the codes *prater legem* should be considered unlawful.

However, the *de facto* situation is far from implementing this model. The DSA and the Resolution refrain from laying down the basic rules to which the private soft law has to conform. In other terms, the constituent elements of an illegal conduct are not established by the EU norms, as the latter merely deal with the distribution of competences. They say who is entitled to issue the rules, but not how these rules should regulate the relevant conducts between people. EU norms do not have a directly prescriptive effect on the *inter partes* relations, because this task is delegated to the private self-regulation. So, it is the latter which will compose the structure of the rules *ex nihilo* rather than integrating, supplementing, a political project partially drawn by the EU regulation.

An example may help us to understand this kind of blank endorsement from heteronomy to autonomy. In regard to unfair and misleading information, the DSA does not specify when news have to be removed because they stop being a lawful exercise of a fundamental right and become an illegal act, damaging the rights of other parties and. Hence, the norm in blank about misleading information opens the way for self-regulation codes or, more precisely, for private platforms (Google, Facebook<sup>28</sup>, YouTube, *et alii*)<sup>29</sup> to mark the borderline between right and wrong, good and evil.

<sup>24</sup> Regulation (EU) 2016/679 of the European Parliament and the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, <https://eur-lex.europa.eu/eli/reg/2016/679/oj> (last visited 04/02/2021). From here GDPR.

<sup>25</sup> Motion for a European Parliament resolution with recommendations to the Commission on a framework of ethical aspects of artificial intelligence, robotics and related technologies (2020/2012(INL)), [https://www.europarl.europa.eu/doceo/document/A-9-2020-0186\\_EN.pdf](https://www.europarl.europa.eu/doceo/document/A-9-2020-0186_EN.pdf) (last visited 04/02/2021).

<sup>26</sup> Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC, [https://ec.europa.eu/info/sites/info/files/proposal\\_for\\_a\\_regulation\\_on\\_a\\_single\\_market\\_for\\_digital\\_services.pdf](https://ec.europa.eu/info/sites/info/files/proposal_for_a_regulation_on_a_single_market_for_digital_services.pdf) (last visited 04/02/2021). From here DSA. See in particular: Cons. 69 and art. 49.

<sup>27</sup> See the Press release *Europe fit for the digital age: Commission proposes new rules for digital platform*, December 15<sup>th</sup>, 2020, [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_2347](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2347) (last visited 04/02/2021).

<sup>28</sup> From here, FB.

<sup>29</sup> See the last Codes of conducts signed by FB, Google and Twitter, Mozilla, *Code of practice on disinformation*, September 26<sup>th</sup>, 2018, <https://ec.europa.eu/digital-single-market/en/news/code-practice-disinformation> (last visited 04/02/2021).



Google *et alii*, when controlling a video or a post, will assess whether they are misleading or not. Only at that moment, the platforms become an unchallenged private lawmaker and the sole domestic judge to decide upon a rule established by themselves in the previous codes of conduct.

Consequently, the co-regulation model, allegedly so dear to Europe, deploys only the *nomen iuris* of the “co” prefix. Actually, in the way that it is framed, it appears not far from giving rise to an anarchic soft law, rather than a soft law guided by a heteronomous source, as required by a proper co-regulation.

Any true co-regulatory regime should combine heteronomous sources and private negotiated acts according to a precise order of intervention. The legislator, when referring to technical devices, should preliminarily select the relevant technology and delineate its basic features in advance. We will see later what this means with regard to algorithms. Only the selected technology should be available to market players. Then, they will be free to use this technology as they like, but will also have to respect the insurmountable boundaries set by the European Legislator.

One last remark on the relationship between binding rules and self-regulation, which was not correctly understood by the European legislator: mandatory law should take responsibility for the “first move”. This expression calls upon the supranational decision-maker to defend her necessary independence from codes while dictating the main guidelines that discipline them. However, European sources of law are exposed to the danger of being captured by the strongest recipients of the rule; and if they are a photocopy of rules already anticipated in the codes, the capture has occurred and with it the reason for the prevalence of the heteronomous source has disappeared. This rationale lies in its ability to guide the private authorities towards the common good in line with a political reading of the values at stake, as we already wrote many times. If, on the other hand, the European regulatory acts, while offering less vague provisions, limit themselves to giving legal substance to the content of self-regulation, the hierarchy of sources and the correspondence between political power and responsibility are in fact circumvented, even if formally respecting the rule of law. This concern is not only theoretical because it coincides with a relationship of dependence of the DSA<sup>30</sup> on the codes now in force. In fact, the respective sections of the two acts – typification of unfair information, duty of *ex post* oversight of platforms and a byzantine procedure for removal – are not substantially different. If, therefore, nothing is new in the DSA with respect to the self-limitation promised – and partly observed – by the private authorities of the Internet, it is due to the DSA’s tendency to re-propose in legal terms rules already written in the codes by FB *et alii*.

#### 4. The digital dimension of privacy

Some lines just to highlight the relationship law/algorithms: the latter are tools to predict the future developments of human behaviors and are fueled by the ongoing bulk collection of data, Big Data<sup>31</sup>.

<sup>30</sup> Refer to *Annual self-assessment reports of signatories to the code of practice on disinformation 2019*, on October 29<sup>th</sup>, 2019, <https://ec.europa.eu/digital-single-market/en/news/annual-self-assessment-reports-signatories-code-practice-disinformation-2019> (last visited 04/02/2021).

<sup>31</sup> Let us recall our essay for deep analysis between the Big Data and the legal categories: *Big Data e la debole resistenza delle categorie giuridiche*, in *Diritto Pubblico*, 1, 2019, 89-117.



We unknowingly leave our data during our negotiations, querying the search engines or participating in virtual meetings on the net. Therefore, the algorithms work on increasing quantities of raw data which are interpreted by virtue of parameters assigned by humans to machines. These data are processed according to their specific logic and are expected to anticipate the predictive assessments on which conducts are likely to occur.

The most common use of algorithms is to make decisions about credit, employment, education, police investigations and other fields<sup>32</sup>. So, it will be a machine, the algorithm, that decides whether a mortgage can be granted or denied, or to quantify the price of insurance, or to drive the consumers' purchasing attitudes. Among the advantages of the algorithms, one can underline their power of enhancing the overall efficiency of government and public service, «of optimizing bureaucratic processes and providing real-time feedback and predicting outcomes»<sup>33</sup>.

The European Union law has addressed the algorithms with the GDPR from the perspective of the individuals, i.e. the recipients of the automated algorithmic decision-making. In fact, the GDPR has delivered a catalogue of individual rights especially in Articles 12, 13 and 22.

With the algorithm, the perennial clash between antagonist values is at stake: on the one hand, the data subject's privacy and, on the other hand, the human ambition to let future conducts be regulated by a machine<sup>34</sup>. Now this debate can entail the prevalence of one or the other, or better a measure of balanced coexistence, which is the solution selected by the GDPR.

To understand what is at stake, it is worth briefly pinpointing the changing identity of the right to privacy.

Born as a right to be left alone<sup>35</sup>, the technological evolution translated it in the digital scenario as the data subject's right to monitor and control one's data. In that way, the virtual image should be brought to match one's internal forum: i.e. a right to digital self-determination<sup>36</sup>.

This right has now put off its old clothes for new ones when it has faced the algorithm. To give an idea of its actual *status*, we have to think about it in terms of the individual's right to take part in the procedure of *ex ante* prognosis. This fundamental right is no longer based on the free and informed consent: the traditional tools of protection have become now insufficient. Indeed, the consent is no longer free, since citizens are brought to give up their digital identities in exchange of the services supplied by High-Tech Companies. So, the consent is *de facto* extorted by the latter, which would otherwise deny their services.

The same remark applies to the consciousness of the consent, which is given in the dark as to the future use of the released data. This is not caused so much by the High-tech Companies' ill will; it is rather because they themselves do not know, when asking the consent, the possible use of the data,

<sup>32</sup> G. MALGIERI, G. COMANDÈ, *Why a right to legibility of automated decision-making exists in the general data protection regulation*, in *International Data Privacy Law*, 7, 4, 2017, 243-244.

<sup>33</sup> B. LEPRI ET ALII, *Fair, Transparent, and Accountable Algorithmic Decision-Making Processes?*, in *Philosophy and Technology*, 31, 2018, 611-612.

<sup>34</sup> M.E. KAMINSKI, *The right to explanation, explained*, in *Berkeley Tech Law Journal*, 34, 2019, 189.

<sup>35</sup> Clearly see: S.D. WARREN, L.D. BRANDEIS, *The Right to Privacy*, in *Harvard Law Review*, 4, 5, 1890, 193-220, also [https://www.jstor.org/stable/1321160?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/1321160?seq=1#metadata_info_tab_contents) (last visited 04/02/2021).

<sup>36</sup> The necessary reference is to an Italian Scholar, S. RODOTÀ, *Tecnologia e diritti*, Bologna, 1995, chapters 2 and 3, for his anticipation of a privacy moving towards the digital landscape.



due to the unpredictability of algorithms’ analysis based upon them. Thus, in such a circuit in the dark, who does not know cannot disclose what she herself ignores. The end result is that digital citizens move blindfolded in a space unknown to them, governed by obscure legal-mathematical parameters: Big data, Algorithms and Artificial intelligence.

Hence, the conclusion is that the new privacy must seek elsewhere the *ad hoc* protection that it needs. The old toolkit, the one that used to provide valuable assistance at the time of the free and informed consent, now offers remedies unsuitable and untailed to the new privacy dimension, far from being *consent based*<sup>37</sup>.

Let us then give a close look to the internal structure of privacy at a time of algorithmic predictive analysis.

The right to privacy does no longer behave as a negative liberty, entailing for the State to abstain from doing anything. The new privacy falls within the logic of a positive liberty. As a social right<sup>38</sup>, it demands the public authority to do, as much as possible, what is needed to implement it. Today’s privacy calls for an active action by the State, not its inaction as in the past.

In a context within which the privacy interacts with predictive analysis, the owner of the data claims an active role in a process of *ex ante* prognosis that is destined to affect her life. She wants to converse with the mechanical mind and correct its mistakes. This claim leads, in the first place, to a request of transparency. The data owner demands the visibility of the criteria, calculation parameters, reasoning logic, on the basis of which that mass of data is decomposed, blended, giving rise thereafter to something different from the initial ingredients. The creditor-citizen wants to be informed in a prompt, comprehensible and sufficient manner on all these aspects, in order to fully understand the outcomes and effects that the algorithmic prediction will have on her.

Having clarified the new privacy, now claiming to receive a clear and comprehensible flow of information, functionalized to the algorithmic decision, let us analyze this right in a dynamic prospect. How does it stand with respect to the corresponding obligation of transparency imposed on the public power? The novelty, due to the technology impact, concerns at least two aspects: the subject matter of the process and the creditor of knowledge of internal procedure<sup>39</sup>.

As to the first aspect, it will cover any data inserted in the machine, the criteria for their evaluation, the significance and consequences that the processing will have on the addressee of the resulting measure (GDPR, art. 13, par. 2, lett. d). This catalogue represents, though, a kind of *minimum*, that each State is free to aggravate, extending the scope of the cognitive claim.

<sup>37</sup> Let us refer to G. DE MINICO, *Big Data e la debole resistenza delle categorie giuridiche. Privacy e lex mercatoria*, cit., 93-99.

<sup>38</sup> See the opinions expressed by on. A. MORO, March 13<sup>th</sup>, 1947, at 1<sup>st</sup> Subcommittee, 2044, <http://legislature.camera.it/dati/costituente/lavori/Assemblea/sed060/sed060nc.pdf> (last visited 04/02/2021) and by on. P. TOGLIATTI, September 9<sup>th</sup>, 1946, at 1<sup>st</sup> Subcommittee, [http://www.camera.it/dati/costituente/lavori/I\\_Sottocommissione/sed003/sed003.pdf](http://www.camera.it/dati/costituente/lavori/I_Sottocommissione/sed003/sed003.pdf) (last visited 04/02/2021) during the Italian Constituent Assembly. The Italian doctrine on social rights is extremely vast; therefore, a footnote would not be a suitable place to synthesize it. For all and for the literature quoted therein see: P. BILANCIA (ed.), *I diritti sociali tra ordinamento statale e ordinamento europeo*, in *Federalismi*, special n. 4, 2018.

<sup>39</sup> For scientific completeness we have to add that the new privacy presents also novelties from the enforcement’s perspective see O. POLLICINO, *Enforcement of the right to digital privacy*, in G. DE MINICO, O. POLLICINO (eds.), *Virtual freedoms, Terrorism and the Law*, London-Turin, 2020, 23 ff.



The active side of the cognitive relationship is even more relevant. Once, the right to be informed used to belong to the private towards the Administration, which thus appeared as the debtor. Hence, the relation was exclusively oriented to the advantage of the citizen. The intended objective was to deprive the strong party, i.e. public power, of the secrecy exemption, in order to make the latter cognizable, open to scrutiny, and thus subject to evaluation by the private.

However, when a mechanical mind enters into a public decision process, also the deciding authority has to seek protection against the distortions of an unfair and biased technology. Hence it holds a right to know the reasons why the machine has produced a certain result out of the many which would have been achievable. In fact, it will still pertain to the human mind to decide whether to receive or dismiss the algorithmic outcome. This expansion of the creditors entitled to obtain the flow of information underlying the algorithms can be construed on the basis of Art. 22 of the GDPR. None the less, even in the absence of a legislative source, it could be inferred from Art. 41 of the EU Charter of Fundamental Rights. The transparency requirement may be enforced with respect to both the relation between private parties and those between a private party and the public authority.

The first relationship is the consequence of the horizontal effect of the Charter<sup>40</sup>; in this way, the duty of transparency also becomes enforceable towards private platforms<sup>41</sup>, if they formulate predictive analyses, as usually happens in data-driven market operations, and as evidenced by the recent DSA's attention to platforms using algorithms<sup>42</sup>.

The same duty will also be enforceable against the private owner of the algorithm, no matter if she uses mechanical intelligence in a private or public procedure.

In the latter case, the private subject's property right is intended to retreat to allow the claim of knowledge of the data owner: when a private instrument serves a public function it must participate in the public regime and move away from the private one of origin.

So, the debtor of the information flow is not only the public authority, but also the High-Tech Companies, the private authorities of the network.

Similar conclusions would be reached even if we considered the Italian institutional reference instead of the European one.

<sup>40</sup> E. ENGLE, *Third Party Effect of Fundamental Rights (Drittwirkung)*, in *Hanse Law Review*, 5, 2, 2009, 165-173: «Horizontal direct effect is the application of public law rules to directly effect legal relations between private individuals in their relations with other private law persons».

<sup>41</sup> See the reflections of O. POLLICINO given during the Public hearing before the Joint Committees 8<sup>th</sup> and 9<sup>th</sup> of Senate of the Italian Republic, on September 29<sup>th</sup>, 2020, <http://bit.ly/36Zr2Rv> (last visited 04/02/2021).

<sup>42</sup> DSA, quoted above, see its Art. 12: «that information shall include information on any policies, procedures, measures and tools used for the purpose of content moderation, including algorithmic decision-making».





Indeed, Art. 97 of the Italian Constitution<sup>43</sup> includes good performance among the principles to which the public administration must be inspired: from it derives the duty of transparency<sup>44</sup>, even if Art. 97 is not aimed exclusively at the administration.

Such a reading would unreasonably penalize the evolutionary interpretation of the Constitution, preventing it from regulating the conduct of private subjects, still unknown in the framework of the economic processes at the time of the Italian Constitution. This interpretation presupposes the mandatory nature of Art. 97 of the Constitution<sup>45</sup> against a weaker programmatic reading. Consequently, even the private parties can, indeed must, contribute to good administration, if called upon to assist the public entity in tasks of social importance.

The case in question is fully part of this figure: mechanical intelligence must operate under given conditions to be at the service of the person, and therefore to help good administration.

An evolutionary interpretation of the concept of transparency, capable of adapting it to current technological developments, can only lead to a dynamic notion of disclosure<sup>46</sup>.

The fact that the private party, who is the addressee of the act, and the administration have similar positions does not level their claim to knowledge. Namely, that of the former will be less penetrating, hardly touching the source code. Indeed, the average person would not have the tools to understand the source code itself; therefore, if she could access it, the owner of the algorithm would have her industrial property rights sacrificed without any advantage for the private party. If this were to happen, EU law would have allowed a right to be infringed without respecting the logic of a reasonable balancing that the Court of Justice has preciously constructed.

<sup>43</sup> It is not possible to synthesize the Italian doctrine in a footnote, but just to mention the most significant voices: S. FOA, *La nuova trasparenza amministrativa*, in *Diritto Amministrativo*, 1, 2018, 65-99; D. DONATI, *Il principio di trasparenza in Costituzione*, in F. MERLONI ET ALII (eds.), *La trasparenza amministrativa*, Milano, 2008, 83-130; G. ARENA, *Trasparenza amministrativa (ad vocem)*, in *Enciclopedia Giuridica*, XXXI, Roma, 1995, 1 ff.; F. MANGANARO, *L'evoluzione del principio di trasparenza amministrativa*, in *astrid-online.it*, 2009; P. TANDA, *La trasparenza nel moderno sistema amministrativo*, in *Nuove autonomie*, 1, 2008, 161-166; U. ALLEGRETTI, *L'imparzialità amministrativa*, Padova, 1965, 241; P. BARILE, *Il dovere di imparzialità della pubblica amministrazione*, in Vv. AA., *Scritti giuridici in memoria di P. Calamandrei*, IV, Padova, 1958, 198 ff.; S. COGNETTI, *Profili sostanziali della legalità amministrativa*, Milano, 1993, *passim*; M. LUCIANI, *Nuovi diritti fondamentali e nuovi rapporti fra cittadino e pubblica amministrazione*, in *Rivista critica del diritto privato*, 1, 1985, 61 ff. and C. PINELLI, *Il «buon andamento» e l'«imparzialità» dell'amministrazione*, in G. BRANCA, A. PIZZORUSSO (founder and continuer), *Art. 97-98. La Pubblica Amministrazione, Commentario della Costituzione*, Bologna-Roma, 31-320.

<sup>44</sup> G. MORBIDELLI, *Il procedimento amministrativo*, in Vv. AA., *Diritto amministrativo*, II, Bologna, 1998, 1222 ff.; D. LARICCIA, *Il principio di imparzialità delle pubbliche amministrazioni. Origini storiche e fondamento costituzionale*, in *Queste Istituzioni*, 3, 2003, 150; R. CARIDÀ, *Principi costituzionali e pubblica amministrazione*, <https://www.giurcost.org/studi/carida2.pdf> (last visited 04/02/2021), 20-21 and P. MARSOCCI, *Gli obblighi di diffusione delle informazioni e il d.lgs. 33/2013 nell'interpretazione del modello costituzionale di amministrazione*, in *Istituzioni del Federalismo*, 3/4, 2013, 700-704.

<sup>45</sup> In coherence with the Italian Supreme Court see: R. CARIDÀ, *Principi costituzionali e pubblica amministrazione*, cit., 1-52. For a thorough overview of this topic read: V. CRISAFULLI, *La Costituzione e le sue disposizioni di principio*, Milano, 1952; P. BARILE, *Il soggetto privato nella Costituzione Italiana*, Padova, 1953, 242.

<sup>46</sup> M. OREFICE, *I Big Data e gli effetti su privacy, trasparenza e iniziativa economica*, Roma, 2017, 17 ff. Let us refer to G. DE MINICO, *Gli open data: una politica «costituzionalmente necessaria?»*, in *Forum di Quaderni Costituzionali*, June 12<sup>th</sup>, 2014.





This does not mean that we can deem as legitimate the outright denial of access to any information about the algorithm requested by the individual. Indeed, comprehensible and meaningful information is the gateway to her informed participation: «An individual has right to explanation of an individual decision because that explanation is necessary for her to invoke the other rights – contestation, expression of her view – that are explicitly enumerated in the text of the GDPR»<sup>47</sup>.

As for the cognitive claim of the administration, we have to consider that it is entitled to “reverse”, i.e. to redo the algorithmic argumentative path and overturn it, if it does not agree with it; then, it must be able to reach the source code, enter the black box and open it. Otherwise, its *a contrario* reasoning would not be readable *ex post* by the private party or the judge.

In short, this space granted to the administration, broader than the space available to the private party, is justified by the determinative powers of the authority, which must keep the decision-making process firmly in its hands. If one wants to avoid that the official has an only formal rubber-stamp role<sup>48</sup>, she must be placed in a position to interact with the machine, to contradict it and to overturn it if necessary.

As A29WP made clear, human intervention removes the purely algorithmic act from the prohibition of art. 22 of the GDPR, provided that the human action does not merely pour an algorithmic output into an authoritative measure, but has an «appropriate authority capability to change the decision»<sup>49</sup>.

Then, it is not surprising that a right born as a freedom from the State behaves over time as a freedom in the State: it is only one of the consequences of an everchanging reality. On the other hand, attention should be paid to the still open question of how to enforce obligations to act where the debtor is unwilling to comply with them. Here, we have to refer to the thoughtful pages of ancient Italian scholars<sup>50</sup>. These ones, while attempting to identify coercive ways to make the debtor observe these duties, did not conceal their awareness that the enforceability of positive obligations would have been lost in the clash with the political indolence of a legislator, reluctant to fulfil the obligations assumed, or lazy in supervising the private individual to whom she had turned them over, or careless in structuring the duties to act in a manner appropriate to the credit claim.

Therefore, we cannot blame only the European legislator, if our privacy, which has now become the right to know the logic behind an algorithmic decision, is not invested by a flow of information as significant as the one that it would be entitled to receive.

On the contrary, in this case, the citizen will be able to receive a form of reward, if only she changes the object of her request: from the knowledge of the algorithm to the legitimacy of the administrative act. In respect of this act, she will be able to request and obtain the annulment, provided that the

<sup>47</sup> M.E. KAMINSKI, *The right to explanation, explained*, in *Berkeley Technology Law Journal*, 34, 2019, 189, in <https://scholar.law.colorado.edu/articles/1227> (last visited 04/02/2021), 13, but concerning to the right to be informed functionalized to an aware participation see: I. MENDOZA, L.A. BYGRAVE, *The Right Not to Be Subject to Automated Decisions Based on Profiling*, in T. SYNODINOU, P. JOUGLEUX, C. MARKOU, T. PRASITTOU (eds.), *EU Internet Law: Regulation and Enforcement*, New York, 2017, 77-98.

<sup>48</sup> M.E. KAMINSKI, *The right to explanation, explained*, cit., 5.

<sup>49</sup> A29WP, *Guidelines on Automated individual Decision-making and Profiling for the purposes of Regulation 2016/679 (wp251rev.01)*, 03/10/2017, <http://bit.ly/373cFM6> (last visited 04/02/2021), 27.

<sup>50</sup> See: M. MAZZIOTTI, *Diritti sociali (ad vocem)*, in *Enciclopedia del Diritto*, XII, Milano, 1964, 8 and L. CARLASSARE, *Diritti di prestazione e vincoli di bilancio*, in *Costituzionalismo.it*, 3, 2015, 139.





automated decision was taken without her knowledge or in her semi-ignorance. However, as for the specific execution of the cognitive claim no answer can be given to her. If the administration does not reveal to her the internal mechanism of functioning of the algorithm or does not make its owner reveal it, the addressee of the act will never know why a certain pseudo-mechanistic and objective decision was taken to her detriment.

Then, we clarified that privacy is the individual’s claim to play as chief-actor in the procedure leading to the predictive analysis of her conduct, so that she will be able to verify the fairness and lawfulness of algorithm’s outcomes.

Now, if we compare this right to a geometric figure, it will compose a triangle: at one corner there is the data subject, on the other the data controller and at the top the one who designs the algorithm, usually a private party. This triangle interacts with a social space, where the collective dimension<sup>51</sup> is achieved through the widespread impact of forecasting analyses, which involve communities or entire social classes, that are going to be affected even if they are not consulted in advance during the predictive analysis, and even if they are external to the self-regulating parties<sup>52</sup>.

Therefore, looking beyond the individual right, we face a collective liberty. This feature is not meant to refer to the different nature of the owner, but rather to a different play field: the collective ground. The effects of the predictive analyses are widespread over the entire social category involved by the algorithmic decision-making, and the predictive outcomes become the basis of future public policies affecting it. In short, privacy has left the individual dimension to drift into a collective landscape.

We argue this process only partially corresponds to how the GDPR was intended to work.

## 5. Is the European discipline of algorithms in favor of the citizens’ rights?

The GDPR is based on two legs: the first constituted by the new fundamental rights of the data subject, the other by the accountability regime. The answer of GDPR does not appear totally satisfying because it is sufficiently well set on the side of rights, less on the side of accountability<sup>53</sup>. However, recently Europe has resumed to deal with this issue in the Resolution on a civil liability regime for artificial intelligence<sup>54</sup>.

<sup>51</sup> M.F. DE TULLIO, *Uguaglianza sostanziale e nuove dimensioni della partecipazione politica*, Napoli, 2020, 139-140.

<sup>52</sup> Let us refer to G. DE MINICO, *A hard look at self-regulation in the UK*, cit., 200-204.

<sup>53</sup> The accountability profile will not be dealt with in this essay because it falls out of the present investigation. For a good anticipation of the several and complex profiles see: M.U. SCHERER, *Regulating artificial intelligence system: risks, challenges, competences, and strategies*, in *Harvard Journal of Law & Technology*, 29, 2, 2016, 354 ff. Even if the Author analyzes the USA system, we quoted this essay for his foresight and suitability to the European system.

<sup>54</sup> European Parliament, *Resolution of 20 October 2020 with recommendations to the Commission on a civil liability regime for artificial intelligence* (2020/2014(INL)), [https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276_EN.html) (last visited 04/02/2021). We just want to underline that although it is a promising step toward a framework discipline on the liability, we have to note the absence of coordination with another act of the European Parliament, *Motion for a European Parliament Resolution with recommendations to the Commission on a framework of ethical aspects of artificial intelligence, robotics and related technologies* (2020/2012(INL)), [https://www.europarl.europa.eu/doceo/document/A-9-2020-0186\\_EN.html](https://www.europarl.europa.eu/doceo/document/A-9-2020-0186_EN.html) (last visited





Actually, the European legislator has chosen to roll out a list of rights which may be activated by the data subject instead of leaving this issue to the self-regulation of the private bodies. As every law it has its lights and shadows. It is easy to note that in some parts the text does not excel in clarity; it creates loopholes denying *de facto* the effectiveness of the rights, and it leaves too much room to Member States' discretionary power. At the same time, the GDPR is an undeniable cornerstone in the direction of the new privacy if compared with the previous EU's Data Protection Directive<sup>55</sup>.

The underlying fear is that the machine may decide instead of the human mind. We are running the serious risk of a new capitalism, moving from the dominance of the profit concentrated in few hands, to the dominance of the obscure technology, unfettered by any democratic control. This eventuality has attracted the European attention, in fact the GDPR, Art. 22, para. 1, has been scrupulous in placing narrow limits to the use of algorithms. So, we can affirm that a new category of the algorithm based act has arisen which complies with a legal framework. These limits refer to a precise relationship between the individual and the machine, aiming to avoid the dominance of the machine over the human mind. If an «automated individual decision-making» is allowed, Art. 22 provides a caveat, setting out a series of rights for the data subject.

Firstly, she has the right not to be submitted to a decision «solely based on an automated processing». This wording could mean either a right to object to such decisions, or a general prohibition of a decision-making only algorithmic based. To this regard the A29WP<sup>56</sup> has chosen the latter interpretation giving a preferential protection to the data subject. Then, the authority utilizing the algorithms will have to justify in which one of the three exceptional situations provided by Art. 22 the case *de quo* falls.

I have given only an example of a legal gap remedied by the soft law of A29WP to the advantage of human rights; this is not the sole omission since the GDPR is not so prescriptive as it should be. In fact, its text resembles more a Directive than a Regulation.

Coming back to the features of Art. 22, it composes the new statute of the privacy, as illustrated below. It is a *minimum* standard which cannot be downgraded, but only upgraded, by the State. To be more precise, Art. 22 – joined with Articles 13 and 14 – recognizes the core right: to be immediately informed about «the *existence* of automated decision-making». Nevertheless, this provision sets out just a mere declaration of the right without specifying its content.

After having been notified about the start of an algorithmic procedure, the data subject should have the right to open the black box of the algorithm. At least she should have access to the information concerning the kind of input uploaded in the machine, the score assigned to each component, the criteria of evaluation, «the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject» (Art. 13, para. 2, lett. f). She should be informed about the «factors taken into account for the decision-making process, and [...] their respective “weight” in an aggregate level»<sup>57</sup>. She should be told how a profile used in the algorithmic decision-making is built,

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04/02/2021). This lack will create a certain number of questions on the relationship between the AI validation and the weakening of its liability.

<sup>55</sup> See for all: L. EDWARDS, M. VEALE, *Slave to the Algorithm? Why a ‘right to an Explanation’ is Probably not the Remedy you are Looking for*, in *Duke Law & Technology Review*, 16, 1, 2017, 17, 44.

<sup>56</sup> A29WP, *Guidelines on automated individual decision-making and profiling*, cit., 20.

<sup>57</sup> *Ivi*, 31.



«including any statistics used in the analysis»<sup>58</sup>. In other words, she is entitled to such a disclosure that lets her retrace the path of the algorithm and reconstruct the final decision affecting her.

Art. 22 further provides the right of the data subject to human involvement in the algorithmic decision-making. This means that a person must be present, in order that the objections of the data subject may be listened to and taken into account, for the purpose of modifying the initial automated decision if it was unfair, biased or wrong. In other words, a decision-maker, either public or private, utilizing the algorithm does not satisfy this requirement by having a human rubber-stamp on algorithmic decisions; but «it must do more, for example, with a human oversight who has the authority to modify substantially the decision»<sup>59</sup>. So the right to be heard excludes that the human intervention could be reduced to a contact by email; it must consist at least in a person to whom the data subject could expose in an adversary way her point of view.

In the attempt to normalize this bundle of rights, the GDPR puts the rights relating to the privacy of the data subject in the same field of other antagonistic values, for example, trade secrets. No *a priori* superiority<sup>60</sup> is accorded to one to the prejudice of another. The reason of the equivalence is to be found in the compliance of GDPR with the European Charter, that has denied the existence of a legal hierarchy of fundamental rights.

It follows that one can deduce useful suggestions to solve the said conflict also from the part of the GDPR which is not binding. The Recital 63 could offer a tool when it indicates that the trade secret may not extend so far as to justify the refusal of any information about the algorithms. On the other hand, the right to disclosure cannot reach the source code, but only the features and the specific logic of the employed algorithms. In this balancing *querelle* a wide discretion is vested upon the Independent National Authorities. These ones are in charge to define a balanced measure of coexistence without useless sacrifice of one right to the advantage of the opposite one, as claimed by the former European Data Protection Supervisor<sup>61</sup>. To delve deeper, the right to access the algorithmic logic must be guaranteed as much as possible, but its extension is variable: it shortens or lengthens according to the recipient of the explanation. If the information is addressed to the data subject, the communication will extend to the logic of the algorithm functioning, but without reaching the source code. On the contrary, if the conflict of rights arises in court, the judge will have the authority to open the source code and conduct the judicial review over it. This enlargement of powers takes place because the trade secret is a weaker value than the correct functioning of justice and therefore it must step back.

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<sup>58</sup> *Ibidem*.

<sup>59</sup> M.E. KAMINSKI, *The right to explanation, explained*, cit., 201.

<sup>60</sup> G. MALGIERI, G. COMANDÈ, *Why a right to legibility of automated decision-making exists in the general data protection regulation*, cit., 23.

<sup>61</sup> See: P. HUSTINX, *Additional EDPS Comments on Data Protection Reform Package*, Bruxelles, March 15<sup>th</sup>, 2013, 21-22, in which the author reminds us that the European Data Protection Supervisor suggested that a more concise balance rule should be adopted, «taking into account that there are many situations that cannot be foreseen and that need to be assessed *in concreto* on a case-by-case basis».



In this clash of rights there is a clear distance between a regulated object and an unregulated one. In USA the matter falls under FOIA<sup>62</sup> that includes trade secrets among several exceptions to transparency. Consequently, the companies can oppose this secret as a binding bar to disclosure requested by the claimer, regardless its private or public nature.

I believe this issue should be analyzed from the perspective of the basic assumptions of a legal order. First of all, according to a common rule of legal interpretation, in case of doubt transparency should prevail. Furthermore, it must be taken into account that a system requirement mandates openness as a tool to hold the government accountable to its citizens.

Some USA Scholars<sup>63</sup> have reasoned that the consequence of this regulatory uncertainty has entailed that trade secret protection prevails over the right to knowledge. If the code, although belonging to a private owner, is used to perform a public function, it should be attracted into the public discipline: «[t]his governmental function requires that companies submit to the same transparency requirements as other government agencies, ensuring transparency»<sup>64</sup>.

Unfortunately, this statement has remained a scholarly position; indeed, the absence of a rule has played in favor of private companies, which have hidden their decisions affecting people behind the alibi of trade secrets.

By contrast, in the EU the GDPR, shadows apart, has offered a key for a correct interpretation: the trade secret cannot be an alibi to refuse any information to the data subject or to the judge. One can say that the GDPR could have gone further, affirming the superiority of fundamental rights over economic liberties. However, in this case the GDPR would have illegally overcome the equivalence stated in the Charter of Fundamental Rights of the European Union, as said before.

Further ambiguities may be found in the GPDR as to the existence of the right to explanation, which is not so certain as it should be. Some Scholars<sup>65</sup> have denied the existence of this right because the GDPR does not explicitly mention it in the text, relegating it in Recital 71. Others have not hesitated to qualify this reasoning as wrong because Recital 71 states that «suitable safeguards [...] should include specific information to the data subject and the right to obtain human intervention, to express his or her point of view, to obtain an explanation of the decision reached after such assessment and to challenge the decision»<sup>66</sup>.

From our point of view three reasons could support the existence of the right in discussion.

The first reason is related to the value of recitals, which offer a helpful tool to the judge in front of unclear provisions. Dismissing the right to explanation because recitals do not have a binding nature

<sup>62</sup> *Freedom of Information Act*, 5 U.S.C. § 552, as amended by public law no. 104-231, 110 STAT. 3048, (b) (2012), exemption at n. 4, <https://www.justice.gov/oip/freedom-information-act-5-usc-552> (last visited 04/02/2021).

<sup>63</sup> We refer to: D.S. LEVINE, *Secrecy and Unaccountability: Trade Secrets in Our Public Infrastructure*, in *Florida Law Review*, 59, 2007, 135 ff.: «When private firms provide public infrastructure, commercial trade secrecy should be discarded (at least in its pure form) and give way to more transparency and accountability», at 140; but see also: D.K. CITRON, F. PASQUALE, *The Scored Society: Due Process for Automated Predictions*, cit., 26.

<sup>64</sup> A.M. CARLSON, *The Need for Transparency in the Age of Predictive Sentencing Algorithms*, in *Iowa Law Review*, 103, 2017, 329 ff.

<sup>65</sup> S. WACHTE, B. MITTELSTADT, L. FLORIDI, *Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation*, in *International Data Privacy Law*, 7, 2, 2017, 76-99.

<sup>66</sup> M.E. KAMINSKI, *The right to explanation, explained*, cit., 13.



would be too formalistic, and «less attentive to the Court of Justice case law which regularly uses recitals as an interpretative aid»<sup>67</sup> before too vague provisions. It is just the case of the right to explanation.

The second reason is found in the consideration that the right to explanation is the final benefit of the rights previously and explicitly accorded by the text. Therefore, the data subject’s right to contest or state her point of view could not be fully exercised without a broad and clear motivation on which the automated decision-making has been adopted<sup>68</sup>.

Among these rights, there is the right to challenge an automated decision before a judge. Hence the issue of how much we are entitled to know about any automated system is strictly connected to the final access to a court: «[h]iding the inner workings of an algorithm from public view might seem preferable, to avoid anyone gaming the system. But without transparency, how can decisions be probed and challenged?»<sup>69</sup>.

The third and key reason is grounded on a fundamental principle: the democratic roots of the entire European architecture. This principle entails that every public power, not only the representative one, must be at the service of the citizens’ will; consequently, in order to comply with this requirement, the power must always remain in plain sight, so as to submit to the ongoing citizens’ control. The lack of motivation prevents the data subject from checking how the public power has used the algorithms that affect her. Should this case occur, we would have an updated version of the arbitrary and unmotivated oppression of individual rights and liberties of which the history of modern democracies delivers many examples.

At this point of our reasoning, we believe that we have adequately proved the existence of a right to algorithmic motivation. Will this have any effect on the way motivation is structured? In our opinion, this aspect of the public act acquires a new centrality, but also a new complexity, when confronted with its natural term of comparison: the motivation *per relationem*. We will explain the assertion: if

<sup>67</sup> M. BRKAN, *Do Algorithms Rule the World? Algorithmic Decision-making in the Framework of the GDPR and Beyond*, in *International Journal of Law and Information Technology*, 2019, also in <https://ssrn.com/abstract=3124901> or <http://dx.doi.org/10.2139/ssrn.3124901> (last visited 04/02/2021).

<sup>68</sup> As clearly stated by the French Constitutional Court in its decision No. 2018-765 DC of June 12, 2018, Conseil constitutionnel, § 70-71: «la décision administrative individuelle doit mentionner explicitement qu’elle a été adoptée sur le fondement d’un algorithme et les principales caractéristiques de mise en œuvre de ce dernier doivent être communiquées à la personne intéressée, à sa demande. Il en résulte que, lorsque les principes de fonctionnement d’un algorithme ne peuvent être communiqués sans porter atteinte à l’un des secrets ou intérêts énoncés au 2° de l’article L. 311-5 du code des relations entre le public et l’administration, aucune décision individuelle ne peut être prise sur le fondement exclusif de cet algorithme. D’autre part, la décision administrative individuelle doit pouvoir faire l’objet de recours administratifs, conformément au chapitre premier du titre premier du livre quatrième du code des relations entre le public et l’administration. L’administration sollicitée à l’occasion de ces recours est alors tenue de se prononcer sans pouvoir se fonder exclusivement sur l’algorithme. La décision administrative est en outre, en cas de recours contentieux, placée sous le contrôle du juge, qui est susceptible d’exiger de l’administration la communication des caractéristiques de l’algorithme. [...] En dernier lieu, le responsable du traitement doit s’assurer de la maîtrise du traitement algorithmique et de ses évolutions afin de pouvoir expliquer, en détail et sous une forme intelligible, à la personne concernée la manière dont le traitement a été mis en œuvre à son égard. Il en résulte que ne peuvent être utilisés, comme fondement exclusif d’une décision administrative individuelle, des algorithmes susceptibles de réviser eux-mêmes les règles qu’ils appliquent, sans le contrôle et la validation du responsable du traitement».

<sup>69</sup> S. OLHEIDE, P.J. WOLFE, *When Algorithms go Wrong. Who is Liable?*, in *Significance*, 14, 6, 2017, 8-9.



the act accepts the algorithmic outcomes, it will not be enough for its motivation to simply refer to them<sup>70</sup>, as would be sufficient in the case of a decision made on a compulsory opinion. Otherwise, we would fall into tautological reasoning, as such obscure. It would be equivalent to saying: the administration has decided this way, because that is how the algorithm wants it. On the contrary, the public authority will be required to explain in clear and comprehensible terms why it has accepted the outcome of the machine, since the algorithm is locked in itself and says nothing about the reasons for its operation. In the opposite case, i.e. if the administration departs from the algorithmic results, it will have to provide explicit reasons, as would be the case if the public authority disregarded a previously requested mandatory opinion.

The presence of technology in the public decision-making process demands the reshaping of the “mixed” decision-making process, due to the coexistence of human and mechanical will. This calls for models that are open to full disclosure, or at least to what is required to contest the decision before a judge. The latter is in the position to rewrite the erroneous algorithm or have the administration do so.

In other words, if the public authority uses algorithms, this delegation of operation to the machine should not become an easy alibi for a reintroduction of authoritative obscurity. Indeed, asserting the dominance of humans over technology risks to be only a good image if the visibility of the black box is not guaranteed, at least to the extent strictly necessary to contest errors or discrimination.

Therefore, once an anthropocentric approach is chosen for AI – as suggested by the Framework Resolution EP A9-0186/2020 quoted above – any objection to the external visibility of the algorithmic process should be dropped. Indeed, anthropocentrism is centered around a human being free and responsible for determining whether and how to use mechanical intelligence. Opacity, instead, would replace the *arcana iuris* with the *arcana technologiae*. The return to the era of legal dogma would be inevitable, with the singularity that today’s inscrutability might appear less contestable than the ancient one, by virtue of that veil of objectivity and scientific certainty that gives it legal semi-immunity.

After all, can we say that a technology is at the service of humans if it does not allow us to understand it, examine it and question it because it could be wrong, just like the human mind?

## 6. Towards an algorithm constitutional by design?

As mentioned above, the algorithmic decision-making in Europe can be complex, subject to error, bias, and discrimination, in addition to triggering dignity concerns. It is however a welcoming point of departure if it is compared with the deregulation or regulatory uncertainty / lack of regulatory certainty in the American system, where the policy maker’s silence or opacity is already an expression of a precise policy: leaving the conflict between human and the machine to the government of private interest.<sup>71</sup> Consequently, the satisfaction of the common good is unlikely, depending on its remote and

<sup>70</sup> *Contra*: A. SIMONCINI, *Amministrazione digitale algoritmica. Il quadro costituzionale*, in R. CAVALLO PERIN, D.U. GALLETTA (eds.), *Il diritto dell’amministrazione pubblica digitale*, Torino, 2020, 30-31.

<sup>71</sup> Just to use a definition due to W. STREECK, P.C. SCHIMMTER, *Community, market, state and associations? The prospective contribution of interest governance to social order*, cit., 1-29.



occasional coincidence with the private interests<sup>72</sup>, as we have already explained while addressing the relation between the soft law and a binding regulatory framework.

Another unregulated or less regulated aspect of the algorithms is their use in the police trials or predictive analysis, during which the algorithmic-based risk tools serve to «support informed decisions on managing offenders according to their risk profiles». The algorithm allows shorter terms of jail if public safety is safeguarded. But there is an undeniable con, namely, the danger that predictive evaluations are influenced in an unequal direction if based on biased and discriminatory algorithms.

A good kickstart to improve the fairness and effectiveness of risk tools is a reference to the famous case, *Loomis*, held in the American courts<sup>73</sup>.

The COMPAS software is the focus of this case; it was used to assess the risk of recidivism of the petitioner, L. Eric Loomis, in order to assist the judge in determining the measures alternative to criminal punishment.

We can synthesize the defense of *Loomis* as follows: the algorithm was based on biased assumptions; it violated the defendant’s right to be sentenced upon accurate information, because the proprietary nature of COMPAS prevented her from assessing its accuracy<sup>74</sup> and the software was nevertheless *de facto* employed to determine her punishment.

The judge rejected the first ground of appeal. This decision was not based upon the recognition of COMPAS’ fairness, as its main motivation was that the judgement had been taken as if COMPAS had never entered the courtroom.

In response to the second ground of appeal, the judge stated that COMPAS did not violate the defendant’s right to due process, because the proprietary nature of COMPAS did not prevent the defendant from seeing inside COMPAS at least up to a certain operating level of the algorithm. The Court denied the incidence of COMPAS on the final decision, because it would have reached the same conviction and quantum of punishment also without COMPAS.

We believe that the ruling is more meaningful for its indications of judicial policy than for the concrete reasoning which is instead exposed to critics. The judge opens a space to the algorithm in the proceedings, but with heavy caveats. The fundamental condition is that the algorithm can only help to determine the alternative penalties to imprisonment. Hence, it must not intervene in the guilty/not guilty judgment, but only in the evaluation of the danger of recidivism. It must apply only to minor crimes.

And the last condition is that: «providing information to sentencing courts on the limitations and cautions attendant with the use of COMPAS risk assessments will enable courts to better assess the accuracy of the assessment and the appropriate weight to be given to the risk score»<sup>75</sup>.

The dark points of this reasoning emerge in the comparison with a similar case of another Supreme Court, which is more consistent between premises and conclusions than the Supreme Court of Wisconsin.

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<sup>72</sup> J. KAY, J. VICKERS, *Regulatory reform: an appraisal*, cit., 239.

<sup>73</sup> Supreme Court of Wisconsin, *State of Wisconsin v. Eric L. Loomis*, Case no. 2015AP157-CR, 5 April – 13 July 2016.

<sup>74</sup> *Ivi*, para. 34, 13.

<sup>75</sup> *Ivi*, para. 66, 28.



For scientific clarity we ought to acknowledge that COMPAS is just one of the many algorithms used in pretrial to predict recidivism. It was passed under the X-rays by a Study of *Propublica*<sup>76</sup>. The study concluded that COMPAS discriminated against Blacks because the false positive rate of its algorithm was much higher for Blacks than for Whites. Hence, the software overpredicted high risk for Blacks<sup>77</sup>.

What had COMPAS done to deserve such a negative opinion? COMPAS had underestimated the recidivism of Whites and overestimated that of Blacks. This evaluation proved to be wrong because of the evidence that Blacks had committed fewer crimes than Whites.

This prediction error was due to Blacks' over-representation in the criminal rankings. Therefore, there were more data about these people as raw material on which the algorithmic machine worked to deduce future behavioral predictions.

In force of the COMPAS assessment tool the Blacks were almost twice as likely as Whites to be labeled a higher risk, but they did not actually re-offend. It made the opposite mistake regarding Whites: they were much more likely than Blacks to be labeled lower risk but go on to commit more crimes.

The basic flaw was in the gathering of data concerning people who had already committed crimes. Among them, black people were a majority. Therefore, a result of excessive recidivism against black people was consequential. This architecture could be defined "a vicious circle" and be visualized as a dog biting its tail, because it continued to condemn those who had already made mistakes extending to the future a presumption of guilt. While those who had not made a mistake are out of COMPAS, which chooses for this category a presumption of innocence, excluding any later wrongdoing.

The case based on COMPAS is useful for us to reflect in more general terms on how to design an algorithm in such a way that its result could be fair and balanced. Two reliable considerations arise from COMPAS: a) even though an algorithm is not based on discriminatory assumptions, one cannot exclude that it may lead to discriminatory outcomes; b) if an algorithm moves from a discriminatory basis, its outcome will be inevitably unequal and unfair.

We are interested in a closer look at the first hypothesis.

It occurs when the elements included in the algorithm arise from questionnaires that are inherently more suitable for the White population rather than the Black people. In that case, these surveys assume the postal code, friendships, eating habits, faith, education received, family environment as detrimental elements. A high score is given as a symptom of recidivism, only because the system does not consider that the meaning of these elements changes according to the ethnic group to which they refer.

In the *Propublica* report it is said that «Northpointe's core product is a set of scores derived from 137 questions that are either answered by defendants or pulled from criminal records. Race is not one of the questions. The survey asks defendants such things as: "Was one of your parents even sent to jail or prison?" "How many of your friends/acquaintances are taking drugs illegally?" and "How often did

<sup>76</sup> J. ANGIN, J. LARSON, S. MATTU, L. KIRCHNER, *Machine Bias*, in *Propublica*, May 23<sup>th</sup>, 2016, <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> (last visited 04/02/2021).

<sup>77</sup> M. HAMILTON, *The biased algorithm evidence of disparate impact of Hispanics*, in *American Criminal Law Review*, 56, 4, 2019, 1557.



you get in fights while at school?” The questionnaire also asks people to agree or disagree with statements such as “A hungry person has a right to steal” and “If people make me angry or lose my temper, I can be dangerous”»<sup>78</sup>.

Thus, these absolute and static models are automatically used regardless of the person to whom they are applied, and with an automatic transfer they end up assigning typical labels and legal assessments which will then result to be prejudicial.

We have to add one further consideration: minority groups, such as Black people, do not receive the same levels of representation in validation studies that are typically granted to White populations. Moreover, some studies have shown that certain instruments demonstrate a predictive accuracy which is recurrently poorer for particular minority samples than for White populations.

Therefore, whereas a particular tool has performed well on its training sample, it does not necessarily work well on another sample, unless there is an *ad hoc* validation. Its good performance is menaced by the potential for risk-relevant differences in offenders and in the features of the study design.

As to the relation between the algorithm and its use in a process, we can argue that rules should impose a validation of the algorithm and prescribe construction architectures modulated according to the characteristics of the social or ethnic group to which they apply. In the absence of such a regulation, the judicial system is faced with an alternative.

a) The entrance of the algorithms in the judicial proceedings is allowed provided that they have been previously validated, i.e. tested on a changing social sample, as the Canadian Court did. In this event both parties should be allowed to see inside the machine, open to a full-court adversarial proceeding. In other words, we affirm that the key remedy to the black box discrimination is transparency, as some Scholars say: «[A] system whose workings are mysterious; we can observe its inputs and outputs, but we cannot tell how one becomes the other». If the problem of algorithmic discrimination is likely to lay in manipulations, then indeed peering inside the black box seems the answer<sup>79</sup>.

b) If algorithms are used in judicial proceedings as non-opening black boxes, they will function as insidious evidence of danger and guilt, because they assign these labels on the basis of the absolute presumption that “what happened will continue to occur in the future”.

This second hypothesis is a shortcut that sends the justice system centuries back, relegating it in a medieval darkness. Indeed, this kind of algorithm, not governed by a binding discipline, determines an algorithmic anarchy. It involves the reproduction of injustices, already heavy on minorities, with the aggravating circumstance that discrimination does not reveal itself, because it is hidden under a “patina of fairness”.<sup>80</sup>

The algorithmic anarchy has replaced the intuitive predictive investigation because it prides itself on being based on mathematical models, which are claimed to be immune from all-too-human bias. But we are arguing that this assumption is undemonstrated.

<sup>78</sup> J. ANGWIN, J. LARSON, S. MATTU, L. KIRCHNER, *Machine Bias*, cit.

<sup>79</sup> F. PASQUALE, *The Black Box Society: The Secret Algorithms That Control Money and Information*, Cambridge-London, 2015, 3 ff. His thought has been retaken by: A. CHANDER, *The Racist Algorithm?*, in *Michigan Law Review*, 115, 2017, 1023-1039.

<sup>80</sup> F. PASQUALE, *The Black Box Society: The Secret Algorithms That Control Money and Information*, cit., 15.



In fact, the algorithmic predictions boasting their “patina of legality” may be more dangerous for fundamental freedoms than the old predictive analyses based on the convictions of the judge. This is because the appearance of objectivity of modern predictions could generate a presumption of fairness difficult to overcome. If the correctness of the algorithmic outcome is assumed as a starting point, the judge will hardly have any evidence of the contrary.

Similarly, it is not comforting to say that the judge might not stick to the algorithm and could take it as any other factor in the trial. Indeed, *de facto*, once the algorithm comes into the trial it exercises a decisive influence on the judge’s conviction. In order not to follow it, the judge should rely on a contrary evidence supported by scientific authority as the algorithm pretends to have. We could draw a parallel between two forms of “capture”: the judges are captured by algorithms like the Independent Authorities have been captured by the regulated.

For example, in the Loomis case the judge stated that regardless of the algorithmic outcome, he would have pronounced the same decision against Loomis. But nobody can demonstrate that this statement is true; the entrance of COMPAS into the courtrooms remains an undeniable fact and no one can behave as if COMPAS had been left out.

Certainly, more correct and respectful of the presumption of innocence is the attitude held by the Canadian Supreme Court. This one in the Ewert case decided for the unreliability of algorithms, whose validity had not been previously tested<sup>81</sup>. The Court ruled out their use for judicial purposes unless the algorithms were accompanied by the evidence excluding their unfairness; otherwise, they should be *tamquam non esset*. The Canadian Supreme Court, ruling in Ewert’s favour, determined that, without evidence of the algorithm being free of cultural bias, it was unjust to use this tool on indigenous inmates.

In sum, to be fair and equal, the algorithms must be regulated, and the crucial rule is that equal situations deserve the same treatment and different situations must receive a differentiated discipline. «Substantive equality requires more than simply equal treatment» as treating groups identically may itself produce inequalities<sup>82</sup>.

Given a regulatory anarchy, algorithms supported by a claim of universality, objectivity and neutrality will be more unfair in substance than medieval prejudices and beliefs. In a political environment which claims to pay attention to social policies, these machines will perpetuate the age-old injustices already afflicting the weaker classes and minority ethnic groups. The sole but aggravating difference would be that the algorithm will hide behind an apparent legality.

## 7. Conclusive remarks

The opinion according to which the net may remain totally unfettered cannot be accepted. We have explained the reasons for which a “Bill of Rights” tailored to the Internet and entrusted to a supranational legislator needs to be put in place.

However, the complex interaction among competing interests makes it difficult to strike an effective balance allowing the Internet to maintain its full potential of innovation. This essay has been focused

<sup>81</sup> *Ewert v. Canada*, 2018 S.C.R. 30, para. 66 (S.C.C. June 13, 2018).

<sup>82</sup> *Ivi*, para. 54.



on the perspective of the offline constitutional acquis of democratic countries being transported online, in order that a better protection of fundamental rights and liberties be achieved, and equal opportunities for all be provided for.

We must be aware that the same nature of the net as an instrument of global communication fostering participation and spreading information and knowledge is drawing a different answer in those countries where democracy is under pressure.

In such cases an answer is easily found appealing to the values of democracy and acknowledging the pre-eminence of rights and liberties. But it is much more difficult to cope with the shift in public opinion arising from terrorism. One must admit that the Internet may be a powerful instrument also in the hands of criminals. Legislators are under pressure to put the Internet under stricter regulations in order to fulfil a growing demand of security. The constitutional principles essentially construed by the Courts that we have recalled in this essay should be considered the strongest barrier to be found against a dangerous shift.

It is obvious that political decision-makers cannot easily reject the prevailing views of the public opinion, which will sooner or later be translated into votes. This suggests that rights and freedoms on the net cannot find their defense solely in a Court of Justice, but require that the argument be brought also in politics.

The algorithm has provided a case study to test the regulatory alternatives, self-regulation alone or a mixed combination of binding regulation with self-regulation. Which of them has proved to be more suitable and well-tailored to reach the equality objective? Our reasoning has shown that the algorithmic anarchy reproduces the already heavy injustices on minorities, with the aggravating circumstance that discrimination does not appear as such, being hidden behind a “patina of fairness”.

On the opposite side, the algorithm, kept under the policy-maker’s control, could level the different fortunes of who is ahead and who is left behind in the social competition.

Therefore, a binding regulation, although held to a *minimum*, will be able to draw an algorithm in accordance with the European Constitutional values, in other terms an “algorithm Constitutional by design”. In more general prospective, it will guide technology towards a fair and widespread common good in compliance with a democratic institutional framework.

*W. J. van*